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EXTRACT

From an Act prescribing Rules for the Government of the State Library, passed March 8th, 1861.

SECTION 11. 'The Librarian shall cause to be kept a register of all books issued and returned; and all books taken by the members of the Legislature, or its officers, shall be returned at the close of the session. If any person injure or fail to return any book taken from the Library, he shall forfeit and pay to the Librarian, for the benefit of the Library, three times the value thereof; and before the Controller shall issue his warrant in favor of any member or officer of the Legislature, or of this State, for his per diem, allowance, or salary, he shall be satisfied that such member or officer has returned all books taken out of the Library by him, and has settled all accounts for injuring such books or otherwise.

Sec. 15. Books may be taken from the Library by the members of the Legislature and its officers during the session of the same, and at any time by the Governor and the officers of the Executive Department of this State who are required to keep their offices at the seat of government, the Justices of the Supreme Court, the Attorney-General and the Trustees of the Library.

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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JANUARY 4, 1873. [Number 1.

Merino Sheep.

Since the first occupation of California by the progressive Yankee and equally energetic Western stock men, vast numbers of sheep of all sorts and values have been brought hither to meet the wants of the country. The first of these wants, was thst of mutton, and for this purpose the stock drover cared but little whether the fleece was wool or hair; consequently large numbers of Mexican sheep were among the first importations; and these with some thousands from the more Western States, constituted the larger number of our flocks.

But the enormous increase of sheep from all sources, soon made the matter of mutton a secondary consideration, for the supply soon exceeded the demand. Reflecting men at once saw tho necessity of producing either a superior quality of mutton or more attention must be given to the quality of the fleece or to both of these. Common coarse wools were almost a drug in the market, snd there was no way of making better mutton, except by changing the breed.

Importations at once begsn, and nearly all the superior breeds both for mutton and fine wools, were soon represented, snd crossings with the common breeds soon gave evidence that "blood will tell." Now we find the condition this, an immense wool product and annually incressing; but it still lacks to a great extent in quslity; for the bnlk of prodnct must go hence for a market, and it costs no more to freight a pound of fine wool than coarse. Hence the importance of breeding the fine wooled sheep.

There are two breeds of fine wools, that stand "hesd and horns" over all others. These are the Merino and the Saxony. The former are undoubtedly the best breed of finc-wooled sheep in the world. For many years they have been the favorite breed among New England growers of fine wools, and, tsking into consideration the size of the animal, weight and quality of the fleece, and value for mntton, there is no other that can compare with it for the California grower.

The Saxony produces a finer wool, but it is not in such general demand, and the animal is diminutive in size, and where crossed with the pnre Merino, has invariably proved detrimental to the latter. It might succeed better here than in the more rigorous Eastern climate, bnt they are nowhere so vigorous as the Merino, either with reference to vicissitudes of climate or capacity to travel or work for a living.

As we must send our wools away for a market, let every pound we raise be made donbly valnable over that of the old, common breeds and their crossings, and in this way save to ourselves half the cost of freighting it; let us do this by the fnrther introduction and extended prodnction of the Merino.

Entertaining these views on the subject of fine wool growing, and deeming it one among the most important of our State's interests, we think we can hardly do better in the way of an illustration for our first page, on the first week of the new year, than to give a faithfnl delineation of the splendid Merino buck, Young Eureka, the property of Severance & Peet.



MERINO RAM, YOUNG EUREKA

He was bred by H. Burrill, of Birdport, Addison connty, Vermont. Was sired by "Eureka Second," imported by Messrs. S. & P., and sold to Thos. Wilson, of Stockton; grand sire "Old Eureka," owned by S. S. Rockwell, of Addison Co., Vermont. For eight years he was one of the most celebrated stock rams of his time. Messrs. S. & P. are among those who appreciate the importance of introducing only the pure blood, as breeding from anything lower than this, is only breeding downward.

They are also the importers of an extensive herd of pure blood Merinos, of which the engraving we present is a true type.

The Rain-fall.—We have now received an amonnt of rain equal to or exceeding that of last year, previous to the first of January. There is no longer a doubt in regard to the immense area that will be devoted to the wheat crop the present year, and if the later rains prove as opportune and plenteous for the growth and filling out of the ripening ear, California will again roll up its millions of centals, that will astonish the world.

Once More.—We send the 1st No. of this volume of the Press free to a number of old subscribers whose term expires with the old year, trusting they may yet be pleased to renew their subscription.

Grape Cuttings.

These can be taken from tho vines at any time after the falling of the leaf and before the spring flow of sap commences. Our experience teaches that the earlier cnttings, those taken before the first of Jannary are more generally certain to make a successful stsrt and after growth than those cut later in the season.

It is common, however, to defer the preparation of cuttings till the pruning takes place, be it early or late, and this will generally answer all purposes if oare is had that the cuttings are secured immediately at the pruning; but if the branches are allowed to lie npon the ground for days, as is often the case, before the cuttings are secured, exposed to the sun or drying winds or to frost, it greatly lessens their chancos of growth.

Grape cuttings are easily preserved for future setting, by "heeling-in" the butts of the same in moist earth or they may bo entirely covered for weeks, if not in condition to mold or sweat while covered. Where the ground can be properly prepared, cuttings can be set at any time during the winter. A correspondent inquiros tho proper time to prune grape-vines that they may not bleed. Any time after the fall of the leaf and before the annual spring flow, which commences in February or March, depending much upon the warmth of the season.

A slight or even considerable bleeding of the vines, works bnt liitle injury to them, and sometimes it is a positive advantage; for wherever there is danger from late spring frosts, the pruning may be delayed until the sap begins to flow freely, the bleeding serving to strengthen and establish the blossoms into well regulated clnsters and increased fruitfulness, particularly on moist, rich alluviums where the vine is apt to grow too mnch to wood, unless checked in this manner.

Pruning Orchard Trees.

Now is the time to give to your fruit trees the pruning they may require, either to give form or symmetry to the tree, a renewed vigor or to induce fruitfulness. In most of our great valleys or on the rolling hills where orchards have been planted, we are more or less subject to violent storms of wind at the change of the seasons, both in spring when the blossoms are setting, and in autumn before winter varieties have all ripened. It becomes a matter of prudence then to keep our newly planted trees down so that they may form low heads, the branches being kept nearer the roots, the action of ascending and descending sap is more rapid, and the trunk of the tree becomes more stocky snd able to resist the gales which blow off most of the fruit on those trained up in whip-stock fashion.

Another advantage of low pruning is, that tho tree is kept in reach of the pruning knife, and when the tree comes into bearing, a great saving is made in gathering the fruit. But there is another reason in favor of low pruning more important than all others. The fruit growing season of the Pacific Coast, is subject to an almost endless sunshine, and when the trunk and branches are exposed to its constant rays, the bark becomes dry, and vegetating action ceases on all those parts most exposed.

The effect is, a drying of the bark, causing it to adhere closely to the limb, premature decay is induced, the sap of the tree becomes poisoned and what little fruit is produced will be blistered to a greater or less extent on account of the lack of leaves, and subject to the dry or bitter rot.

Pacific Rural Press for 1873.—Once more have we trimmed our beautiful craft, hauled everything taut, and put to sea under the most favorable auspices. We have the same agreeable companions on board who accompanied us last year, including Mary Mountain, and as we take a careful look among those on board, we find new faces and friends who promise to help us both in sunshine and storm, should the latter overtake us, and will take such notes of our voyage having an agricultural interest, to bear along with us, that as we make our weekly landings at the thresholds of the farmers' homes, our coming will be greeted, and fully deserving, we hope, of a kind welcome; and as we make our weekly calls we shall hope to secure the assistance of other able seamen for our agricultural craft.

The Old Year. — We cannot say the old year sleeps, for it is dead! May we not hope, that all that transpired of evil during its life, died with it, bequeathing only goodness and happiness to the young New Year.

CORRESPONDENCE.

Climates.

EDITORS PRESS:—A stranger passing throughout our Golden State is at once struck at her varied climate, sequestered valleys, natural scenery in our mountain gorges, waterfalls and giant trees;"at once falls in love with it and wonders why should there be such variedness in comparison to his eastern homo. The temperature, even iu a day's ride, changes from one of heat to cold, whereas you might ride huudreds of miles in the East, the range of heat remaining about the same; but by marking the extent of territory, iufluence of mountain ranges, prevailing wiuds, the cause and effect at once appear plain, and the more a person sees it, the better he gets accustomed to it and never cau be satisfied back to his old accustomed home, but remains ever within our borders. Such has been the case of thousands, and will ever remain so.

To deseribe the climate of an Eastern State it would include the whole, but in California you might easily say each couuty differs in some respect, which makes the contrast so different; and take the aggregate you possess the "Garden of Eden" of the world.

Those who wish to possess such a home, it can be found along the borders of the ocean shore, breathing her cool atmospherc, or iu our valleys of fatness under their own and fig tree; along the borders of our vine-clad hills, and far up in the snowy peaks of the Sierras, congenial to his taste, health and feelings. In some respects our climate compares to the eastern and western section of Oregon, Utah, Nevada, Washingtou Territory and other places. The season, extent of plains, mountain ranges, elevated plateaus, mountain streams, arid wastes, variety of soil, production of fruit, tropical regious, forests, fall of suow, summer heat aud cooling winds, making up such a variety from other parts, and unitiug them in oue, gives to its possessor a land far heyond the classic hills of Italy or sequcstered vales of Eden. After takiug a cursory glauce of the climate as a whole, I refer more definitely to the wide bosom—the valley of Sacramento, with her long range of mountains on the east and west, the length three times as long as her width, including a number of counties, which in the maiu varies but little, only in some minor points. Our seasons strictly do not have but two,

Wet and Dry.

Our rainy season commences in November, but often have showers in September, lasting till May. We scarcely havo two seasons alike, but every eight or ten years we generally have a heavy winter, with an extra quantity of rain, sometimes flooding our river banks to such an extent that portions of the valley become inundated, such as the tules, and lower points of land. The situation of our city in the noble Sacramento, is surrounded with a broad and high levee, sufficiently strong to encouuter the strong currents that dash agaiust its sides, thereby saving her property from being swept over by the angry waves, devastating everything it comes in reach of, such as has heen her fate many times, but now she is bound around so strong with its walls of embankment, that sho is impregnablo for all future time. Our railroad that surrounds its limits keeps it strong and packed hard for all time. Our spring of the year opens in February, although vegetation commences as soou as the raiufall, bringing it in the dead of wiuter, of our Eastern friends, when the earth is robed in white, and dreariness reigns supreme, whilc we are baskiug in the sunshiue of our temperato climate.

Stock ranges throughout the different portious of the valley, without any shelter, subsisting on the range of vegetatiou, and sheep browse on the hill side. Our coldest weather comes before the heaviest rains fall; frost quite severe. Snow scarcely ever falls, still it is in fiue view on the summit and hill-sides and coast ranges. The eastern portion of Oregon is similar to our valley, while the western compares with our coast and mountain ranges. Our storms come generally from the east and southeast. We have had storms from the north but rarely. Another beauty in respect to our climate is, that no matter what degree of heat or cold the day is, the nights arc cool and refreshing, aud the weary laborer as he lies on his couch at night to rest, is soon lost in profound slumber, and rises strong and refreshed, ready to engage in the active duties of the hour. Another notable feature — during the rainy season we are not visited by such terrific hail-storms and high tempests, so common aud destructive East. Occasionally our earth tremblos and quakes for the sake of varioty.

Our Dry Season

Commencos with July and remaius till October. The four seasons blend together so gradually that while you are looking for one to open, it has passed to the next. No rain ever moistens the earth during the dry season, thereby giving the farmer plenty of time to harvest his grain; and often it is left in the fields for months, till he is ready to dispose of it, without any damage. Hay is cut here as early as May; grain, a month later.

The warmth of the season ripens our fruit early; small fruit is found in the market as early as the 15th of April, followed by other fruits throughout the season. The same in regard to other points favorable to our climate. To counteract the heat which abounds during the summer, a refreshing breeze from the southeast, called the trade-winds, sweeps up our valley till October, cooling the atmosphere aud making it pleasant through the long summer days. Occasionally a "norther" occurs, lasting generally three days; it is an unwelcome visitor, and glad are we when a change occurs. The temperature remains about the same, ranging from 60° to 70° Fahr. At times, a hot season occurs, running up from 90° to 100° in the shade.

Passing through our various gardens, situated iu different portions of the valley, the visitor at once rocoguizes

Tropical Fruit

Growing in our midst, showing that our winter season does not affect the growing of the same. We havo the orange, lemons, limes, olives, almonds, English and American walnuts; also figs, prunes and grapes of every variety. Fruit is grown so plcutifully that in our midst that all can indulge in the luxury throughout the year.

Of vegetables we can say the samc, raising, as we do, along our river bottoms, some of the largest ever found in any State. Many persons adorn their homes with shrubbery and flowers, which are of such variety that they bloom throughout the year;—so on through the seasons, bringing again the time for vegetation, which springs from its slumber and carpets "mother earth" with its mantle of green — decks her smiling face with flowers of every hue, fills the balmy breeze with its odor, and stoops to kiss the cheek of Nature. Joy and happiuess lights every face, and in time—time so swift of passage—the golden fruit hangs ready to be plucked by the hand of industry! The brown, seared leaf falls and nature fades gently back and hides her face as the blasts of wiuter sweep over her sleeping form. G. R.

Sacramento County, Dec. 22, 1872.

Frost or No Frost.

EDITORS PRESS. In your issue of Dec. 21st, under the head of "Our Agricultural Notes," you intimated at least, that there are places in California, where frosts are never known, or at least not worth speaking of.

Now though a resident of ono of the warmest valleys of central California, there is never a wiuter without an occasional frost here, and indeed in any direction around, within a hundred miles of us. Will you please name the locality in California where perfect immuuity rom frost is the rule with the clerk of the weather.

Iono Valley, Dec. 29th, W. N.

We can hardly answer our correspondent better thau by presenting the followiug from the *Ventura Signal* of Dec. 21st.

Winter Vegetables.

There is no question as to tillers ot the soil in this part of the State making a grand mistake in confining their labors too exclusively to the production of graiu. Many branches of farming are nearly or totally neglected, while others are overdone. But it is not our object now to discuss this matter, except as regards a single branch of it—gardeniug.

Enough is now known of the capacities of this section to render it entirely certain that nearly all kinds of garden vegetables can bc easily and cheaply produced here at seasons when they cannot be in the northern part of this State, or in any other State of the Union.

In what other State or region can potatoes, cabbages, onions, tomatoes, beans, poas, radishes, lettuce, celery, beets, turnips, carrots, parsnips, corn, melons and nearly every other vegetable that could be named, be found growing luxuriantly in the month, of December, January, February, March and April? Some of these things do better here in winter than at any other season. Peas, for instance, are larger, tenderer and better filled than during the month of Juue. Tomatoes are untouched by frost, and as sweet aud pulpy as at any other season.

Of course there is no extended home market for such things, but during the winter and spriug months it would be almost unlimited in San Francisco, and at largely paying prices. Such produce can be shipped from here direct without danger of loss, and at reasonable freight charges. Five acres of peas, beans (green), or tomatoes, properly marketed, would bring more profit than half the grain farms.

An Almond Orchard.

Bearing almond orchards in this new country are a rarity; indeed, were it not for the few trees of various kinds in isolated localities, planted by the missiouaries or early pioneers, the admirable capacity of Southern California for semi-tropical fruit-gowing would be mere matter of conjecture. Many trees have been planted here within the past five years, though but few have yet come into beariug. Of this number is the almoud orchard of Mr. L. D. Chillson, located in Ventura Valley, a mile and a half from towu. We paid this beautiful place a flying visit this week, and through his politeness are enabled to lay before our readers a fow facts that may be of interest and profit.

He has about 380 trees, about 300 of which horo more or less fruit this ycar, and many of them no inconsiderable quantity the year before. They are of the hard-shell, paper-shell, and Languedoc varieties; were planted five years ago last February, and never irrigated but once. They are from 20 to 30 feet high, and most of them measure from 18 to 24 inches in circumference about the body. They are straight, clean barked, and have a vigorous and healthy appearance, showing good soil and cultivatiou.

Mr. C. gathered from these trees the past season about 2,500 pounds of clean fruit, most of which he has sold at an average price of 18 cents, unbleached, and just as they came from the hull. The trees were by no means uniform in product, some having but a few ounces of fruit, while others bore many pounds. He estimates the cost of gatheriug at three cents a pouud.

It will be seen from this that his four-acre almond orchard already pays a fine profit, with a certainty of rapid increase of profits for many years to come.

Grapes for Raisins and Wine.

EDITORS PRESS :—Your often published request for farmers to write for your paper is my excuse for seuding you a few lines at this time. I also feel that it is not quite fair to profit by the experience and public spirit of others without contributing, if but in a small way, to the general fund in return. As the season for planting new vineyards is at hand, I will offer a few suggestions on that subject, the result of seven year's practical experience.

Although the area devoted to vines has rapidly increased the last three or four years, but a minority of the State that is best adapted to that purpose is yet planted. There need be no fear of overdoing the business. Our market is almost unlimited if we select the right location and plant the right kind of vines. There are not enough of the best varieties of tablo grapes grown in this State to supply onc large Eastern city, if we could deliver them thero at the rates which competing roads uow building, when completed, will undoubtedly enable us to do.

Then again, the value of raisins imported into the Uuited States in one year is greater than the grape crop of this State at present, and there is no reason why we cannot supply them all. Last, but greatest of all is the demand for grapes for wine. I would not advise any one to confine himself to one kind of grape, but a grapo which will admirably meet either one or all of these demands would seem to be entitled to the first place, and this I claim for the

Muscat of Alexandria.

It is one of the best table grapes both in flavor and keeping qualities, and as far as my experience goes, after trying some thirty different kinds, uneqnaled for raisins. It also commands the highest price for wine. If any one knows a better raisin grape he will confer a favor on hundreds by publishiug the fact in the PRESS. The Flame Tokay and Black Morocco will bear transportation better than other grapes. For red wine I prefer the Zinfindel and Rose of Peru. For white wine, German Muscatel, Riesling, Berger and German Chasslas. These grapes in this valley this year brought twenty-five dollars per ton for wine, and but a small part of the demand was supplied. No reflecting man of this day will plant the Mission variety. The net profit of the foreigu vines in my own vineyard this year was more than double that from my Mission vines, acre for acre.

Curing Raisins.

Now a word about making raisins. I will give you my idea, derived from experiments on a small scale, it is true, but I think it equally applicable to a large operation. All raisins that I have seen made by artificial heat have a cooked taste. They can be made in the open air in the early part of the season, but they are exposed to great loss and damage by insects, becs, wasps, birds and squirrels, and liable to be ruined by rain.

My plan is this: construct a building with a single glass roof sloping to the south, the lower side of the roof reaching nearly to the ground, the ends and sides boarded tight—with double doors at each end of the building, the outside doors of wood, the inside doors of wire cloth, The floor should be of earth, stone or concrete; this, with a curtain to draw over the glass roof when the sun is too hot makes the whole complete. Opening the outside doors gives the necessary ventilation in the daytime and closing them at night time keeps the room warm all night without artificial heat. The room of course can be made any length or width desired. I have made raisins that have been pronounced equal to any imported ones. I would send you a sample, hut unfortunately I have none now.

In conclusion let me say to new beginners, that however viniculturists may differ as to the depth, the soil should be stirred in an old vineyard, all agree that you cannot work it too deep before the vines are plantod, and, in fact, upon this and thorough after-cultivation depend the life and growth of the vines. For table grapes a black gravel not exposed to frost is best; but for raisins and wine the red foothills are far superior. G. S. B.

Yonntvile, Napa county, Dec. 27th.

Fruit-tree Borer.

Much has boen written and suggested about the best manner of dcstroying that great pest, the borer but so far I as have seen the suggestions generally termiuate by advising the old fashioned remedy of poking a slender wire after the enemy.

A neighbor of mine who takes great interest in his garden, has been experimenting to prevent the ravages of the borer on his trees, and has been successful in every instance. He uses a mulch of several inches iu thickness of redwood saw dust, which he lets lie all summer round his trees. The trees that had the sawdust were never molested, while the adjoining trees were riddled by the borer in every instance.

It is also worth knowing that redwood sawdust makes an excellant manure for trees; it should be dug in every wiuter and a new mulch applied, I. BEGG.

Gilroy, Dec. 25th, 1872.

Farm Life.

EDS. PRESS.—You often urge farmers to write for your paper, and no doubt many would be pleased to contribute to so worthy a paper as the PRESS, oftener than they do, were it not that it is proverbial among farmers to be "so busy" as to leave no time ontside of tho regular routine of sowing and reapiug, and all the concomitants thereof; yet, nono need work always, howevcr large the farm may be, if it is managed rightly. And no man has a right to keep so much land that he has no time for recreation or pastime; yet how many do so, *not* from necessity, for want does not compel a man to count his acres by hundreds or thousands, but from an inordinate desire to heap up glittering treasure, until it becomes the sole aim of his existence. No matter if it keeps happiness from his home, briugs lines of care to his brow, and scatters the frosts of age on his head, while it is scarcely noon of life for him. No matter if wife and children are deprived of life's sweet golden hours, by incessant toil from earliest morn till darkness broods over all things, and the wearied farmers seek rest till another day comes; wherein each is hut a repetition of those which have faded in the past, and life becomes a burden almost, and is cheered only by the hope of "sometime we will have enough money," to quit work, leave the farm, and enjoy life generally. Does the time ever como to such persons? Wo apprehend not.

But while we have many farmers whose avariciousuess is the canker-worm which precludes all idea of happiness, we are thaukful that all are not so, some can appreciate farming aud farm life and can *live* while working.

This should be our highest aim to make our homes such that it is happiness to live in them. And this is within the reach of all; don't let the little cottage go to ruin while getting ready to bnild that handsome residence you have planned; but make it chcerful while you live in it; let the four square walls show that its inmates love them, keep it sweet and clean, plant clinging vines near aud see how tenderly and lovingly they will twine about your home. You can enjoy the flowers, can have the songs of happy birds for music, the gentle winds and blessed sunshine, and health and happiness will follow, if we all endcavor to understand the word content.

Thcro are many things in our country, which need reforming; but none more than the general order of farmiug. We need reformers, who will work to obtain homes, and then strive to make them a fit dwelling place for mortals, those who will order and plan as though it were for life; and whilo catering for the palate, will arrauge to please the eyo, that when the body is wearied by toil the senses may delight in the beautiful. If the good time ever comes, then indeed will man realize that to till the land is his "best vocation." We will hear less of the endless toil and drudgery of farm life, for meu will read more and fret less, and through study and research be enabled to accomplish their plans with less labor, and make their lives a grander object than the one of mere labor for the means to supply food aud raiment; will seek to clothe the mind, so it may better be prepared to meet Nature's various changes, and understand the beauties and blessings which are daily passed unheeded by. N.

Floriu, Sacramento Co., Dec. 19th, 1872.

Moths and Crickets.

EDITORS PRESS:—I have for somo time been watching, under the head of practical recipes, for one to make good merchantable soap, but have not yet seen one; please inscrt the best you know.

To drive away moth, all that is neccssary, is to keep a small piece of camphor gum about your clothes.

If crickets take up their abodo in your trunk, or any other place where clothes are kept, the leaves of pennyroyal or wormwood sprinkled about, will drive them away immediately.

R. S. C.

TO MAKE SOFT SOAP WITH POTASH.—To cleanse the grease, put it in weak lye; keep it as hot as possiblc and not boil it. When all pieces are eaten up, fill the kettle up with cold water; let it stand until cold, when the grease will rise to the top. Take off aud prepare to make the soap. Twenty pounds of grease to thirteen pounds of potash are required to make a barrel of soap. Get the best part of the cake and dissolve it; strain the lye into the barrel. (There will be settlings in the best of potash; but keep it out of the barrel by straining the lye.) Melt the grease aud strain into the barrel also, and thus avoid the filth so commonly found where one gets near the bottom of the barrel. The last is thus made as clean as the first. With a stick in the barrel stir the lye and grease three or four times a day, thoroughly. It will thicken gradually, and make most beautiful soap. If made in cold weather the barrel should stand in a warm place.

Poultry Notes.

Squash Seed Fatal to Fowls.

Jas. N. Bookstaver, Rutherford Park, N. J., writes to the American Farmers' Cluh: I feel it a duty to call the attention to a discovery made by me that may not be generally known. The other day my little boy came and told me that "a chickey had gone dead." On going into the hen-house I found a fine black Spanish cock lifeless upon the floor. At first I attributed its death to a weasel, or some animal of that character; hut I could find no marks to warrant such a conclusion. A little while afterward I found a dead pullet in the yard. This began to alarm me. I had heard of hencholera, and began to think some such disease had made its appearance on my premises. An autopsy revealed to me the cause of death, they having shortened their lives by a little indiscretion in the selection of food. On opening their crops I found the contents to he corn and squash seeds. The seeds had created a watery fluid, greatly discolored, that could find no outlet. Farmers' wives should be careful to place such kitchen refuse beyond the reach of the fowls.

Pumpkin Seeds Also Fatal.

Wm. Anderson, Ann Arbor, Mich., also writes the Cluh that he has lost many of his fowls in the following manner: "The first symptom that appears is lameness in one leg; after a few days both legs become so weak that they cannot stand, and pine away and die in two weeks, and sometimes less than that." In reference to this matter, Washington Hills, of Long Island, says: "One cause of this disease complained of is allowing turkeys to eat the seeds of pumpkins. Ahout the time farmers take in their corn and gather their pumpkins, almost invariably the cattle are treated to a meal of pumpkins. If the turkeys are around the barnyard they also have a meal of seeds, and so sure as they do so sure they will be lame. Sometimes it kills them. At any rate they do not get over it. They will stay lame all the season. Nothing will fatten them. In fact I have known a whole flock affected in this way to be almost worthless, and nothing else caused it but pumpkin seeds."

Prolific Hens.—Theodore Cornish, Wellsville, Alleghany county, New York, furnishes some interesting particulars regarding poultry keeping. He writes: I commenced keeping poultry in 1857, iu Oregon. I invested about $500 in the busiuess, sold out for $150, took a note payable in a year, and never got a dollar. In the fall of 1865 I iuvested lightly, and during the following year kept from 400 to 600 heus. I learned a great deal of their nature and requirements, but did not make it successful. I made a profit that year of about ten cents per head. In 1868 I made auother trial, and received 30 cents per head profit. In the three following years I persisted in raising both chickens and eggs, and each of three years had larger profits than at any previous time, the profit of 1871 being 71 cents per head. This year I have kept 126 hens, which have laid 13,487 eggs, or a little more than 107 each. I have received for them $224. I have raised enough chickens to replace what hens I have lost, and the feed at the end of the year will have cost $119; leaving me a profit of $105, besides a large quantity of valuahle mauure. I have kept these hens on three-eighths of an acre of laud, and they are what are called common fowls or mongrels.—*Ex.*

Value of Poultry Manure.—From actnal experiment it has beeu found that the droppings from four Brahmas for one night weighed in one case exactly 1 lb., and in another more than ¾ lb., an average of nearly 4 ounces to each bird. By drying, this was reduced to not quite 1½ ounces. Other breeds make less; but, allowing only one ounce per bird daily of dry dung, fifty fowls will make, in their roosting house alone, 10 cwt. per annum of the best manure in the world. Hence ¼ an acre of poultry will make more than enough manure for 1 acre of land, 7 cwt. of guano being the usual quautity applied per acre, and poultry manure being even richer than guano in ammonia and fertilizing salts. No other stock will give an equal return in this way; and these figures demand careful attention from the large farmer. The mauure, before using, should be mixed with twice its bulk of earth, and then allowed to stand in a heap, covered with a few inches of earth till decomposed throughout, when it makes the very best manure that can be had.—*Ex.*

Leghorns as Layers.—The poultry topic coming up, Mr. Fuller said he had kept Leghorns eight years, and finds them the best of breeds. During the past two seasons he admitted some Dorkings, but this fall, good-by Dorkings. Leghorns are always on the lay, are chaste keepers at home, and being of cheerful temper they don't want to be "brooding" over chickens, or other troubles. The Dorkings are of an inquisitive turn of mind, want to see the world, and so are disagreeable about small places, but might be liked on farms over which they could roam, gathering sustenance, and at the same time killing insects. Chairman Ely remarked that he, too, had found the Leghorns excellent for eggs, but not possessed of the motherly instinct.

The Apiary.

Bee Culture.

It has always surprised me that our people did not pay more attention than they do to the culture of the honey-bee. Considering the amount of capital thus invested and labor expended, it is the most lucrative business in the country.

In this snnny clime where the flowers are hrim-full with rich sweets for the larger part of the year, a colony of hees could pay for the hive, the trouhle and all expenses the first year, and leave a neat little profit in the owner's hands.

When our people are forced to the conclusion that they must practice economy, aud take advantage of all the resources that a heneficient Providence has placed at our disposal, then they will see the wisdom of our advice in this particular.

In order to show what an important item of trade honey is, in certain countries, we adduce the following:

"The Island of Corsica, paid to Rome an annual trihute of 200,000 pounds of wax, which pre-supposes the production of from two to three million pounds of honey yearly. This island contains 3,790 square miles.

"In the province of Attica, in Greece, containing forty-five square miles, and 20,000 inhabitants, 20,000 hives are kept, each yielding, on an average, thirty pounds of houey and two pounds of wax.

"According to an official report, there were in Denmark, in 1833, 86,036 colonies of bees. The annual product of honey appears to he about 1,841,000 pounds. In 1855 the export of wax from that country was 118,370 pounds.

"In 1857, the yield of honey and wax in the Empire of Australia, was estimated to be worth over seven millions of dollars."

For Beginners with Bees.

A writer in the *New York Mail* offers this trio of suggestions:

1. Do not go headlong into this or any other branch of rural industry. Be content with small beginnings, aud take time to gather experience. Commence with one stock of bees, and before you buy even one, get some recent treatise on bee-keeping, and post yourself at least in regard to the outlines of apiarian science.

2. Begin with a movable frame hive of some sort. Bees have been kept advantageously, and may be still, in straw or common box hives; but to attain the best results, a movable frame hive is necessary. This kind of hive admits of access to the bees, control over them, and from one season's observations in such a hive more may be learned about bees than by keeping them 20 years in a straw or box hive. A single stock in such a hive will cost about $10, inclusive of patent right, and surely this is not an investmeut, to begin with, that need frighten anybody.

3. Do not expect sudden and wonderful profits, nor be discouraged by reverses. There is no speculation in bee-keeping, any more than in any other branch of rural economy. Here, as elsewhere, diligence, care, energy and perseverance are essential to success.

Profitable Business for Women.—One of the most profitable as well as interesting kinds of busiuess for a woman is the care of bees. Iu a recent agricultural report it is stated that one lady bought four hives for ten dollars, and in five years she was offered one thousand five hundred dollars for her stock and refused it as not enough. In addition to this increase of her capital, one of these five years she sold twenty-two hives and four-hundred and twenty pounds of honey. It is also stated that in five years one man, from six colonies of bees to start with, cleared eight thousand pounds of honey and one hundred and fifty-four colonies.

When properly instructed, almost any woman in the city, as easily as in the country, can manage bees, and make more profit than in any other method demanding so little time and labor. But in the modes ordinarily practiced, few can make any great profit in this employment.

It is hoped a time is at hand when every woman will he trained to some employment by which she can secure to herself an independent home and means to support a family, in case she does not marry, or has been left a widow, with herself and family to support.—*American Woman's Home.*

Honey.—The production of honey is rapidly increasing in the coast district south of Santa Barbara, especially in San Diego connty, which last year exported 27,600 pounds, and next year if the Winter should be favorable, will export perhaps 100,000 pounds. One firm has 1,180 hives and has sold 300 within a year. It may be worthy of mention that the peculiar flavor of the Californian honey bears a strong resemblance to that of the honey from Mt. Hymettus, which like ours is made from wild flowers, and has retained something of its ancient reputation in Europe for superior excellence eveu to our own time.

Bees in a Pumpkin.—The Los Angeles *Express* of Dec. 4th, says: H. P. Massey recently discovered a swarm of wild bees comfortahly housed in a dried pumpkin in Martiu's cornfield. The pumpkin was apparently of last year's growth, and was perfectly dry, and contained ten or twelve pounds of beautifully clear white honey.

Miscellaneous.

Experiments in Nature's Laboratory.

The experimental method, now so universally accepted as the sole means of arriving at scientific facts, is mostly carried out in lahoratories provided with more or less expensive apparatus, which, however large and commodious, rivals in a pitifully small degree the grand, subtle, and delicate appliances of nature. No artificial arrangements can emulate the enormous pressures to which in nature various materials are suhjected. No furnace constructed by man, though seven times heated, can approach in intensity of action the heat of volcanic origin; and this last is, so to speak, cold when compared to the high temperatures of the solar atmosphere.

What comparison can be made between all the varied and skillfully contrived apparatus of modern chemistry and that which exists in the respiratory, digestive, and circulatory organs of animals, or even plants? Not all the instruments and processes yet devised hy man for investigatton of organic chemistry are equal to the construction of a blood-corpuscle, a cell, or an animal tissue. We know that these things are produced in obedience to law, as surely as that winds blow, iron rusts, and rivers flow in accordance with fixed and invariahle principles. Could we establish the proper conditions, a blood-corpuscle would result.

The feeble experiments of the philosopher are merely attempts to establish in each case a determinate set of conditions. This done, he awaits results. It is only through the agency of natural law that he establishes conditions, he himself acting in as blind obedience to law as does the clod from which he culls a specimen. He even thinks in obedience to law, from which he can no more escape than matter can escape from the mysterious influence called gravity.

People often speak about violating a law of nature, and of the punishment which follows such violation, The fact is, however, that there is no such thing as breaking through natural law. If we eat that which nourishes us, we are uourished according to law. If we take arsenic, it acts to poison us in obedience to other provisions of the same inexorable code. Tobacco entails nervous and other disorders upon man, when used as a stimulant, under the same law that it kills ticks on lambs. Nature is perfectly indifferent whether a flame burns sticks or our fingers. It is the eternal fiat that gases heated to incandescence shall produce certain effects on certain other substances, and neither sticks nor fingers can avade the everlasting unchangeable decree. Underlying the ever-changing complexity of phenomena is the never-changing, inflexihle, sternly coherent law, so much superior to the puny will and strenth of man that one wonders at even the careless application to it of the term "violation."

It is questionable whether, iu the search for artificial appliances through which to control conditions, we have not in some measure come to underrate the value of close observation of results of conditions already established in nature.

It is quite recent that we have learned to appreciate the possihle effects of wiuds in abrading rocks exposed to their action. The artificial application of the sand blast to the cutting of the hardest suhstances within the last two or three years is only a repetition of a process which has been going on uuder the eyes of mankind for ages.

Who has ever thought of consulting any of the processes going on in the natural world for confirmation or negation of the elementary character of those suhstances now called chemical elements? Who has said, "Inasmuch as the chemical processes of digestion and assimilation are infinitely more refined than any I can conduct, let me see whether iu the animal or vegetable economy phosphorus or sulphur (which are, to say at least, open to the suspicion of compound character) is not sometimes produced from food which contains neither?" Should such a fact ever be discovered, it would as effectually settle the composite character of phosphorus or sulphur as could the most successful laboratory analysis.

All honor to the splendid corps of investigators—now, thank God! in no want of recruits—who are forcing their way into the interpenetralia of nature in schools, in laboratories, in shops, and in garrets! All honor to the genius that has given us the balance, the thermometer, and the barometer; that has widened our field of vision by the microscope, the telescope, and the spectroscope! All honor to him, though the humblest, who has added one implement to our common stock! Yet, with due reverence to genius we believe there is something to be seen with unaided eyes, and outside the lahoratories and observatories of our universities.—*Am. Artisan.*

Nickle as a Gas Occluder.—Prof. Raoult of Grenoble, has proved that nickle employed for twelve hours as a negative electrode in a voltameter, condenses at least 150 times its volume of hydrogen and abandons entirely this gas, when it is taken from the voltameter and plunged in water. M. Raoult has made several experiments on the production of caloric and has succeded in demonstrating that the intensity of the heat developed by an electric current is independent of the system of battery by which the current is engendered.

Heating Water Above the Boiling Point in Open Vessels.

M. Donny, a French experimentalist, found that water deprived of air could he raised to a temperature of 280° Fah., without hoiling, and that evaporation then took place explosively, the water discharging a sufficient amount of steam at a single burst to reduce its temperature to that due the pressure to which it was exposed. M. Deluc observed the fact even earlier thau Donny, and physicists have attacked the subject siuce.

M. Dufour, by taking the most delicate method aud observing the greatest care to avoid contact of rough particles and metallic surfaces with the water, succeeded in raising the temperature of very minute globules 347° Fah., which is that due to steam under a pressure of 115 pounds to the square inch. It is found necessary, however, in such experiments, to operate with very clean water in very small quantities, and to he exceedingly csreful to avoid the slightest motion of the liquid, and also to keep it from contact with metallic surfaces or mineral suhstances.

M. Donny's experiments were made with glass vessels, but M. Dufour was compelled to suspend his drops of water in a mixture of oil of cloves and linseed oil, to secure the success of his experiment. Such conditions evidently never occur where water is vaporized in steam boilers, and we may probably feel confident that such superheating is not likely to produce steam boiler explosions. The mass of water in a steam-boiler is too large, and is invariably in contact with a metallic surface. It is probably always in motion, at least, to a slight extent, as the irregular distribution of heat in all ordinary hoilers, must produce generally some slight circulation at all times; and finally it rarely happens that feed water is absolutely free from impurities. While, therefore, we cannot say positively that explosions have never occurred, from this cause, we are fully justified, probably, iu supposiug it to be the fact.—*Scientific American.*

Origin of Storms.

Mr. John Hepburn, of Gloucester, N. J., writes to the *Scientific American*, that a careful observation of twelve years past has satisfied him that "storms are nursed iuto being by the action of electricity from the sun, and that the rays of the sun drives the storms before them." He says: "I have made a specialty of watching the first traces of gust march, and I have invariably found that morning gusts come from the east; mid-day gusts from the south and evening gusts from the west, and I feel quite sure that if scientists will devote a little time to the first appearance of any coming gnst, they will find and admit that there is truth in the theory I have advanced. I am of the opiniou that solar elcctricity produces earth storms, and that most earthquakes are produced by the same agency."

He has noticed that black, stormy clouds advance from the sun, pass on beyond, or make a stand overhead, and in the latter case mix more and run into each other in very great commotion; then hegin to break and act with fearful violence upon the earth, sending torrents of rain or hail in an *opposite direction* to that of its original march. He has also noticed gusts come up, along through the clouds, pass overhead, and for some distance beyond, then return against or at a greater or less angle to the sun's rays. What he appears to claim as his theory is, that the gusts are first set in motion in a line with and before the sun's rays; but that when once so put in motion the cloud thus formed may be driven more or less out of its direct motiou by side currents, before it commences to discharge its aqueous contents, or otherwise expend its accumulated fury.

"Gummate of Iron" Paper.—Many years ago Fremy discovered, very unexpectedly at the time to the chemical world, that gum, instead of being, as previously held, an isomeric form of starch or cellulose, was the lime salt of a peculiar acid, *gummic acid*. The *British Journal of Photography* states that, very curiously, gummic acid combines with ferric oxyd, forming what may be called an *iron gum*. To coat paper, which is then sensitive to light, "a solution of perchloride of iron is taken, ammonia cautiously added with agitation until a permanent precipitate makes its appearance. The liquid then filtered, paper saturated with the solution, and allowed to dry in the dark. The coated sheets then floated on some thick mucilage of gum-arabic. The surface of the paper is thus covered with an even layer of the "gummate of iron." When the paper carrying the iron is first coated with the mucilage, the color does not at once change, but preseutly a stroug, yellowish-brown tint is produced, and the gum 'sets,' and then the layer dries up, leaving the paper very flexible for a long time, and highly glazed."

There is no Object Unworthy of Our Notice.—"While I am reading" says a careful student on natural history, "a fly settles on my hand; I don't kill it; I watch it, with a glass perhaps, and see it clean its wings and its head, and make friends with it till I feel I can speak to that fly; and so it is with everything living. If we will humhle ourselves and condescend to look at the apparently lowest creatures, we shall find instruction in the meanest of them."

Nooksachk Valley.

This beautiful valley is 17 miles northeast from Whatcom and now has only about 20 settlers It produces wheat, barley, corn, oats, peas and potatoes. A large share of the timber has been burned. On the bottom lands are alder, vine-maple, some small brush, snd a few cottonwoods. On the uplands are some very fine firs.

The River

Will be navigable far up the valley when cleared of jams. Its banks do not overflow except at the jams. The soil along the river banks is sandy but becomes more firm and clayey as yon go back from the river. Iu 1871 there was a light frost on May 6th, and another on Sep. 8th. Ice froze during the winter to a thickness of 6 inches. There are peat beds aud wild cranberry marshes along the river.

Farms Open lo Setllemenl

Arc 25 to 30 miles from tide-water. Those nearer the mouth of tho river have all been taken.

The Skagit River Valley

Coutains 200,000 acres of agricultural and grazing lands. Its settlement has hitherto been prevented by a jam located abont ten and one-half miles from tide-water. As soon as an appropriation can be received to clear away the jam the timber will become avsilable and the land valuable. Then the river can be navigated for sixty miles from the mouth and many of its tributaries will becomo navigable.

The Annual Overflows

Take place in January and June. Even the June freshets do no injury to growing crops. The timber on the bottom lands is very similar to that of the Nooksachk Valley and indeed to that of the river bottoms of West Washington generally. Vine-maple, alder, cottonwood, crab-apple and occasionally a cedar occupy the low-lands while the hills are covered with fir, spruce, cedar, etc. Salmonberries, nettles, gooseberries and grasses are everywhere. In some places the heavy timber reaches to the river-banks. The valley is 20 miles wide above the jam and some of the claims first located upon the bottom lands have been vacated because the fresheta interfered with buildings.

The Nucachamas

Is a tributary of the Skagit that empties into it about twenty miles from tide-water. There is a tract of good timber on this river a mile long and extending half a mile back from the river.

Skookum Charley

Is the chief of a petty tribe of Indians there. They have 200 acres of land cleared and are anxious to have white settlers come in, from whom they can get employment. Above the forks is a wide valley of good land surrounded by snow-capped mountains.

The Mines

Have yielded gold and silver and it is rnmored that valuable coal mines have been found; but the region has never been well prospected. The party who visited this valley reached it in one day from Seattle with a small boat. They think if a small steamer was put on this river above the jam that trade and settlement would follow so as to make it a paying business almost from the very first.

From the Nooksachk River to the Brilish Boundary

The valley is about 10 miles wide at the upper settlement, and 17 miles wide at the mouth of the river. There are many small creeks of pure water running through theso bottoms and many prairies of 40 to 100 acres each covered with a wild grass known as blue-joints. There are good claims here for 2,000 or 3,000 aettlers within a day's ride of the bay.

The assessed value of property in Whitcom county is $500,000, and the population has increased from 200 to 500 votes within the past two years.

The Bellingham Bay Coal Co.

Is taking out 70 tons of coal per day, is worked with good machinery and is likely soon to prove profitable.

Semiahmoo Bay is four hours ride by steamer from Whatcom. This is a small but very lovely sheet of water perfectly land locked and safe for any vessel at any time. There are about a hundred settlers here.

The Slock Growers' Association of Yreka

Waa organized to prevent the sale of animals with bogns pedigrees and to encourage the breeding of blooded stock. All pedigrees should be entered in the Society'a Book and any one buying stock from Yreka should be careful to see that the pedigree is accompanied by the certificate of the Secretary, James Quinn, and the seal of the society. Mr. Wm. McConnel, the efficient President, is thoroughly identified with the auccess of tho aociety.

Mr. Quinn's herd of Ayrshires was aelected from the herd of F. D. Curtis, and Wm. Crozier. They are as follows:

Betty 6th, red and white — calved Nov. 10th 1870. From Betty 4th by Heather Jack from Heather Jack 1at.

Her pedigree is No. 20 of Beacom Herd Record. She was bred by Wm. Crozier.

Harriet Clancy—Red and white; calved June 24th, 1870, from Diana 2d. No. 340⅓ Ayrshire Herd Book; by Dover 2d No. 152.

This cow was bred by F. D. Curtis, celebrated in the annals of the American Institute Farmers' Clnb.

Rose 4th—Red; calved Nov. 10th, 1870. Descendcd from Rose 2d. Ayrshire Herd Book, page 21, No. 225. By John Rodgers do. do. No. 746.

Col. Lyman—Red and white; calved in Sept. 1870. Descendcd from Jenny Dean, Ayrshire Herd Book, page 81, No. 476. By Comet 3d, Ayrshire Herd Book, Vol. 2, page 15. No. 133. Bred by Wm. Crozier.

Janet 4th—Red and white; calved June, 1869, No. 19, Beaon Herd Record, descended from Janet 3d. Ayrshire Herd Book, page 80. No. 464. By Black Douglass, Ayrshire Herd Book page 80, No. 99.

These five animals are the nucleus for a fine herd of Ayrshires which it is to be hoped will prove a source of great profit to Mr. Quinn some day. Bnt the chief profit derived from these will be distributed among those who avail themselves of the opportunity to grade up their dairies to first-class milking stock.—*Olympia Transcript, July* 13.

Rabbit Fur.

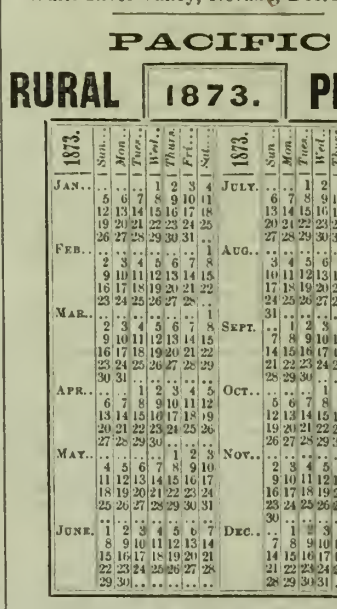
Editors Rural Press:—In a late issue of the Press, I noticed an article headed, "Woven Fabrics from Rabbits' Fur," which reminded me of my own experience in that line.

During the late war, I was in the southern portion of Alabama. On account of the blockade, we were deprived of Northern goods, and as there were no factories in the South, we were obliged to manufacture onr own cloth. In every house was a loom and spinning wheel, and we were proud of our home-spun

Alexander kids were not at all fashionable, (N. B.—Because we could not get them,) so we knit or crocheted our gloves of wool or cotton. It occurred to me, that rabbit fur would make prettier ones than either of those materials, so I procurred half a dozen of skins, and pulled out the long outside hair, and then the soft fur, underneath. This I mixed with about one-third cotton, carded it into rolls, and then spun.

The yarn was very strong and silky, and between a dove and fawn color. The gloves I knit of it were very pretty, were as soft as silk, and never wore out. E. G. W.

White River Valley, Nevada, Dec. 20th, 1872.



A Scientist Honored. — A medal, which bears on the obverae the portraits of Dr. Janasen and Mr. Lockyer, and on the reverse the chariot of the Sun and Phœbus indicating the prominences of an uneclipsed Snn, haa been forwarded to tho latter gentleman by the French Government, in commemoration of his discovery of the method of observing the aun's chromosphere without an eclipse.

It is said thst Merino wool constitutes tho greatest portion of the cloths of the world, and that it is the wool of which there is the highest necessity.

Wheat Review for December.

The old year passes away and the new one opens with bright prospects for our farmers—brighter than ever before. During the month prices have leaped from $1.70 to $2.05, and freights have fallen from £5 2d. 6s. or $24.91 per ton to the nominal rate of £3 or $14.58 per ton. This is equivalent to 72c per cental.

Receipts during the month have amounted to 937,668 centals from bay and coast ports, and 246,600 centals delivered at Oakland wharf, being a total of 1,184,268 centals for San Francisco and Oskland.

Exports for the same period have amounted to 940,439 centals, worth $1,759,391, of which 511,119 centals, worth $995,130, have been sent to Liverpool; 122,971 centals, worth $172,211 have been sent to Cork; 284,971 centals, worth $552,940 to Queenstown, and the balance to various other ports. This has been carried in 47 vessels. We append a synopsis:

To Liverpool.

SHIP.	CARGO IN CEN'LS	VALUE
St. Joseph..	37,195	$ 67,855
Montrose...	31,663	64,500
Swordfish...	22 015	
Rance.....	37,510	63,000
Lrpwing ..	23,916	44,000
Dundonald .	18,816	34,000
Hugo & Otto	11,336	25 330
Robt L. Lane	32,831	57,050
Delva.....	17,823	30,854
Eliz. Cushing	30 683	50,000
Wardale	40,850	70,500
Amnita.	34,890	61,011
Juliet.....	40,379	66,000
Ganymede..	19,754	36,000
Bertha.....	28,787	50,000
St. Nicholas	55,400	111,000
Iron Duke..	43,150	88,000
Ericson.....	44,291	78,000
Total.....	511,119	$995,130

To Cork.

SHIP.	CARGO IN CEN'LS	VALUE.
Zoroya.....	12,106	$20,000
Arracan.....	31,785	55,000
Panl.....	10,464	18,241
Fire Queen..	51,787	45,000
H. Fortescue	16,282	34,000
Total.....	122 024	$172,211

To Queenstown.

SHIP.	CARGO IN CEN'LS	VALUE.
Empire.....	33,825	$64,280
Sarah Bell..	27,569	55,200
Winchester..	32 320	65,000
Duke Argyle	30,221	48,000
Britornart..	21,026	33,300
City of Amoy	31,289	52,000
Lima.....	26,048	53,400
Monte Rosa	40,183	75,100
Aracoon...	20,571	26,500
Ukraine.....	21,589	42,600
Total.....	284,971	$525,910

To Other Ports.

SHIP.	WHERE EXP'D	CARGO IN CENTALS.	VALUE.
D. C. Murray.	Honolulu.....	120	$ 200
Dakota.....	Honolulu.....	69	110
Greyhound...	Tahiti.....	100	200
Columbus	Falmouth.....	22,036	38,600
Totals. ..	.....	22,325	$39,110

Total Exports.

PLACE.	NUMBER OF CENTALS.	QUANTITY OF WHEAT.	VALUE.
Liverhoof.....	18	511,119	$995,130
Cork..	4	122,971	172.211
Queenstown	10	284,971	552,940
Other Ports.....	4	22,325	39,110
TOTALS	47	940,439	$1.759.391

Sales quoted during the month have aggregated 340,000 centals, bringing $620,000, beiug an average of $1.82 per cental. We qnote the following

Diagram of S. F. Wheat Rate for past Month:

DEC. DATE	WHEAT. COAST.	WHEAT. INTERIOR.	WHEAT. SHIPG.	WHEAT. MILLING.	ADVANCE. COAST.	ADVANCE. INTERIOR.	ADVANCE. SHIPG.	ADVANCE. MILLING.
2	.....	$1.67½	$1.65	$1.70	.....	.....	.....	.....
3	$1.50	1.72½	1.71½	1.73½	15c	4¾	6¼	3¾
4	1.65	1.72½	1.71¾	1.73½	15	4¾	6¼	3¾
5	1.65	1.74¾	1.72½	1.76¾	15	6¾	7½	6¼
6	1.65	1.85¾	1.82½	1.89	15	17¼	17½	19
7	1.65	1.85¾	1.82¾	1.89	15	17¼	17½	19
9	1.65	1.88¾	1.87½	1.90	25	20¼	22½	20
10	1.75	1.88¾	1.87½	1.90	25	20¼	22½	20
11	1.75	1.88¾	1.87½	1.90	30	20¼	22½	20
12	1.80	1.95	1.95	2.00	30	27½	30	30
13	1.80	1.95	1.95	2.00	30	27½	30	30
14	1.80	1.95	1.95	2.00	30	27½	30	30
16	1.80	1.95	1.95	2.00	30	27½	30	30
17	1.80	1.95	1.95	2.00	30	27½	30	30
18	1.80	1.95	1.95	2.00	30	27½	30	30
19	1.80	1.95	1.95	2.00	30	27½	30	30
20	1.80	1.95	1.95	2.00	30	27½	30	30
21	1.80	1.95	1.95	2.00	30	27½	30	30
23	1.80	1.95	1.95	2.00	30	27½	30	30
24	1.80	1.95	1.95	2.00	30	27½	30	30
26	1.80	1.95	1.90	2.00	30	27½	30	30
27	1.80	1.93¾	1.90	1.97½	30	26¼	25	27½
28	1.80	1.93¾	1.95	1.97½	30	26¼	25	27½
30	1.80	1.64¾	1.95	1.97½	30	26¼	25	27½
31	1 80	1.97½	1 95	2.00	30	30	30	30

These Prices

Represented average quotations only. From these it will be seen that the rise which began in November advanced with unprecedented rapidity in December. We give the mean prices of coast and interior, shipping and milling. Of theae interior includes shipping and milling; coast, shipping and distilling wheat. Coast wheat starting from $1.50 on the 3d inst. rose fifteen cents next day, and on the 10th inst. further rose 10 cents, the 12th witneasing a still further rise of five cents. Thus on the 4th inst. the rise was fifteen cents over tho price prevailing at the beginning of the month; on the 10th inst. twenty five-cents above the same price; while on the 12th inst. it waa thirty cents higher than the price at the beginning of the month. Similarly interior wheat advanced four and three-fourth cents on the 3d, on the 5th it was six and three-fourth cents higher than at the beginning of the month; on the 6th inst. eighteen and one-fourth centa higher; on the 9th, twenty and one-fourth centa higher, and on the 12th, twenty aeven and a half cents higher, at which rate it remained till the twenty-seventh inst; when the market growing weak from rains it receded to twenty-five and one-fourth cents, standing at an average price of $1.93¾ cents per cental, and now it has advanced again to the figures of the 12th instant. Shipping and milling wheat advanced thirty cents per cental and on the 27th receded to twenty-five and twenty-seven and a half cents respectively higher than they were at the beginuing of the month, remaining at an average of $1 90 and $1.97½ per cental, but now they are $1.95 and $2.00 respectively.

The Highest Prices Paid

Were for coast wheat, $1.85 on the 9th inst. and $1.90 on the 18th; for shipping wheat $1.72½ on the 3d, $1.75 on the 5th, $1.85 on the 5th, $1.90 on the 9th, and $2.00 the 12th; and for milling $1.75 on the 3d, $1.77½ on the 5th, $1.89 on the 6th, $1.90 on the 9th, $2.00 on the 12th and $2.02½ on the 31st.

The Price in Liverpool

As telegraphed, has receded from what it was at the beginning of the month. On the 2d inst. Californian aversge was quoted at 12s 3d to 12s 6d and club at 13s to 13s 3d, or from $2.97 to $3.00 and $3.16 to $3.28 on the 3d inst. it fell to 12s to 12s 6d for average and 13s 8d to 13s for club, or $2.91, $3.00 and $3.07 to $3.15, a fall of 6 cents on average and 9 to 13 cents on club; on the 9th inst. it fell to 12s to 12s 4d for average and 12s 6d to 13s for club, from $2.91 to $2.99 and $3.00 to $3.15, and on the 20th inst. it rose to 12s 2d to 12s 5d for average and 12s 9d to 13s for club or $2.95 to $3.01 and $3.03 to $3.15. This shows a decline during the month of 2 cents on average and 13 cents on clnb.

Oakland Farming, Horticultural and Industrial Club.

At the regular meeting, Friday evening, December 27th, the report of the committee on trees for street planting (published last week) waa adopted. A motion was adopted that the annual election of officers take place at the at the next regular meeting, and that the prcaent officers hand in their reports.

Mr. John I. Fay brought the attention of the Club to the fact that the further pickling of grapes in the State might be of advantage. They make an excellent and cheap sweet pickle, and can be preserved in vinegar made from their own juice. They are cheaper than potatoea in many places. An export trade in pickled grapes once started might reault in much importance to our State, as no other section in the Union is so favorablo to their growth of fine quality.

Dr. Carr said Mr. Hathaway, at San Leandro, had informed him that some years sgo he had covered some old worn out land with leached ashea and had got a good crop of clover as a result, without sowing any aeed.

Mr. J. P. Moore was unanimously elected a member of the Club. Mr. Montandon presented a copy of "Hooker's Flora Britanica" to the Clnb library—its first gift.

On motion of Mrs. Carr, tho Clnb adjourned to Friday evening, Jannary 10th.—*Oakland News.*

Rain Fall.

As an evidence of the difference in respect to the moisture of the earth thia year from what it waa last, we have a striking illustration in the reservoir of the Contra Costa Water Company. Last year it required a fall of twelve inches of rain to fill the reservoir. This year, with au additional hight of fifteen feet, the reservoir was filled by a rain fall of only six inches. We judge by this that six inches of rain the present year is equal to twelve last. That is, the earth had become so thoroughly dried by tho three years dronght, that it requiredarain fall of six inches to put the earth in the aame condition, in respect to moisture, that it was the present year before any rain fell. The earth in this State is like a aponge, retaining the moistnre as a reserve power to meet the exigencies of dry seaaons. The hot aun and dry atmosphere acts as a powerful attraction, forcing the moisture from the lowest depths to the surface. The three dry seasons had about "wrung the sponge dry," and the reason of the great amount of water which the earth abaorbed last year, and the heavy fall of rain necessary to make any perceptible rise in the streams and fountains. There is a acientific principle connected with this incident which we turn over to the University professors and students for further elaboration.—*Oakland Transcript.*

Aaa measure of precaution against the spread of cattle plague, the Danish government has prohibited the importation of cattle, sheep, hides, leather, and even of hay and straw, from Great Britain.

Corn-cobs are an article of merchandise in requeat at Paris, and soveral New England firms gather them for shipment. After aaturation with tar and resin they are used for kindlings.

Our Farming Lands.

The *Morning Call* has an excellent article on this subject by Thos. Magee, which will interest our readers in other States than California:

In treating of the subject of farming lands and their prices, in California, the writer desires to waylay and secure public attention by making several solemn promises. He will not even once allude directly to our glorious climate, desirable and novel as allusion to it would be; he will not once assert that California is the garden of the world, that it is the poor man's paradise, and that our resources will eventually make this the empire State of the Union. He is well aware that these expressions, which might be hyperbolical if used in describing other countries, would not be above the zero level of frozen fact if used in describing this State. He knows, too, that none of these expressions have ever been used by any other writer, and, consequently, that they would have all the novelty of newness, in addition to the merit of truth; nevertheless, he will eschew all such statements, and deal simply with a few prosaic, but he hopes desirable, points of information relative to the price of farming lands in various portions of California, that those who contemplate a removal to this State may bere find answers to questions they would like to propound.

The nearest rich and large body of farming land lies in the

Santa Clara Valley,

Directly south of San Francisco. Bottom lands in that valley are worth $75 to $150 per acre; $200 is frequently paid. Such high priced land is used for fruit and vegetable raising, and has improvements attached which cost $10 to $25 per acre. The Santa Clara Valley is about forty miles long and fifteen to twenty miles wide; no large permanent river runs through it; it is watered by an extensive system of artesian wells. It contains nearly as many towns, first-class farm-houses, schools, colleges and churches as auy of the richest and most thickly settled valleys of Peunsylvania or Ohio. A railroad runs through its whole length, and the southern end of San Francisco Bay is nearly on a line with its northern end. The Santa Clara Valley labors under the drawback of having been tilled for fifteen or twenty years continuously in wheat, oats or barley. It has, therefore, lost its virgin freshness, and in some places is showing decided signs of exhaustion. It suffers in dry years almost as much as regions much further south and east.

There are many small valleys hidden in the Coast Range, west and south of the Santa Clara Valley, which, from their contiguity to the ocean and its moisture-laden fogs, can always be relied upon to produce large crops, particularly of potatoes and oats. One of the largest and finest coast valleys in the State—indeed, probably the very richest—is

The Pajaro Valley,

Distant about sixty miles southwesterly from San Francisco. It has been cultivated quite as long as the Santa Clara Valley, but its soil, as a whole, is much deeper and richer, and the continuance of its fertility is greatly assisted by the moisture named. It does not contain so many fine houses as the Santa Clara Valley, nor is it subject to such great heat. A railroad runs through a portion of it. In addition to rail facilities for transportation, the Pajaro Valley enjoys ocean coast transportation by means of schooners and freight steamers. Few portions of the State produce finer or larger crops than the Pajaro Valley. Land there is worth an average of at least $100 per acre; $200 is frequently asked, but not often paid, unless the improvements are unusually good. There are many choice spots in it which, with the improvements, are really worth that price, and pay a fair income on it.

The finest and largest valleys north of, and contiguous to, San Francisco, are the

Napa, Sonoma and Russian River Valleys.

They open about thirty miles from the city. A railroad runs through each of them, and small steamers and schooners make their way partly up two of them, through sloughs and rivers. Napa Valley is the most beautiful of the three, but Sonoma and Russian River Valleys would challenge admiration in any country. Each is walled in by elevations that can, in most places, hardly be dignified by the name of mountains; and yet to which it would almost be an insult to apply the redneed name of hills. Land in the very choicest portions of these magnificent valleys can be bought for an average of $100 per acre, while much that begins in the valleys and ends in the embraced of the hills can be bought for $40 to $60 per acre. The grape and peach are the favorite fruits produced in Napa and Sonoma Valleys, as strawberries, raspberries, blackberries and peaches are the favorite fruit crops in the Santa Clara Valley.

The average wheat crop raised in Napa, Russian River and Sonoma Valleys is at least 25 bnshels to the acre, while 40 bushels is not an uncommon crop. Grape-growing is now the favorite agricultural pursuit in Sonoma Valley, and is very largely practised in the two others likewise. Bearing vineyard land is worth about $300 per acre; 5 to 7 tons is a fair yield. The grapes generally sell for 1 to 1¼ cents per pound at the vineyard or near to it. Even in the dryest years, Sonoma, Russian River and Napa Valleys produce good crops. The celebrated valley of Wyoming, in Pennsylvania, or that of the Mohawk, in New York, do not in any respect surpass, and in many points do not equal, Napa Valley in the charm of rural beauty, varied verdure and interlarded pictnresqueness of valley, oak-clothed rolling hills, and mountain scenery.

Other Northern Valleys.

There are a number of other rich and small valleys in the upper portions of Napa and Sonoma counties, and in the vicinity of Lakeport in the adjoining county of Lake; the land in these valleys is good, but the transportation facilities are not so cheap or rapid, and the country is not so far advanced. Land in these valleys is worth an average of $50 per acre.

The Sacramento Valley.

The very richest land in the greatest valley of the State—that of Sacramento—between Marysville and Red Bluff, a distance of 83 miles by rail, is worth $30 to $50 per acre. Wheat and barley are the favorite crops, and the average yield of each is large. Few cases of failure of crops have ever occurred in any portion of that region, while in many portions of it such a thing as failure from drouth is unknown.

The Sacramento Valley is not so verdant or attractive in its general features as the other valleys named; neither are the improvements to be found in it so good; but, as a whole, its soil is not surpassed for fertility or variety. A great trunk railroad—the California and Oregon branch of the Central Pacific line—runs through the Sacramento Valley from Junction Station to its head, at Redding, 152 miles north of Sacramento. There are towns along the line of this road at intervals of about eight miles. The soil of much of the land in the other great valley of California, that of

The San Joaquin,

Is thin and sandy, but with the aid of a liberal rainfall, it produces crops of the largest and plumpest wheat. With irrigation, that valley —much of which in dry seasons seems a hopeless desert—will become the very garden of California, for the production of wheat, barley, corn and cotton. Irrigation will insure two crops yearly—wheat or barley first and corn next—and that without deterioration of the life-giving qualities of the soil. The surplus waters of the rivers which flow down the western flanks of the Sierra Nevada and through the San Joaquin Valley seaward, can be stored in natural depressions and by enlarging the area of existing lakes, in a convenient and easy manner. The work will not be expensive, considering the vast transformation it will effect in the products and reliability of the land. When these irrigation projects—the necessity and value of which have been but lately perceived—have been completed, the farmers of this valley will be in a position to draw upon an exhaustless fertilizer at a much smaller annual expenditure than the New England farmer now has to make for such fertilizers as manure, phosphate, gypsum, guano, etc. Water is life to land anywhere, but it is so to an exceptional and remarkable degree in California. The Mohave Desert, on the southeastern borders of the State, nearly equals the worst portions of Sahara in sandy sterility; yet even there water is the only element of fruitfulness wanting. This fact was plainly demonstrated last year. A sheep-raiser discovered water near the surface of the ground, in the desert named, and now he has one of the finest bodies of sheep-raising land in the State. Land on the bottoms of the rivers of the San Joaquin Valley is worth $20 to $40 per acre. Good crops can be raised in such locations, even in years of drought. Such seasons are experienced every six or seven years in California.

The Valley of Kern River

Is situated in and near the southern head of the great San Joaquin Valley. It lies on bottoms formed by deposits of the river from which the valley derives its name. There are yet large bodies of the very richest bottom lands, owned by the Government, and open to preëmption and settlement, in Kern River Valley. No larger average crops of wheat, barley, corn, cotton or alfalfa clover have ever been grown in California than have been produced in that region. Cattle raisers had possession of it, and kept settlers away until about two years ago; but the cattle are being crowded out, and settlements and farm-houses are increasing fast. There is still at least fifty thousand acres of land of the richest quality open to preëmption in Kern River Valley, while there are yet fully two million acres of public land in Kern, Tulare and San Joaquin Valleys. Probably not more than one-third of this land can be relied npon for the production of crops in more than three years out of six; but even after this admission is made, it will be seen that there is still an immense quantity that is as reliable in respect to crops as the Santa Clara Valley, which is by no means classed as one of the most drouthy sections of our valley lands. Farming in the great valleys of California, too, let it be remembered, is not the closely-followed and costly science it is in the Eastern-Atlantic States. The lands receive a scratching, only, with gangploughs, and the crops are cut, threshed and harvested with rushing, labor-saving machinery. These are generally owned by parties who move from farm to farm in the season of crop-gathering. The seed is the chief expense; for, though the existence of an outrageous fence law leaves the crops open to trespass on the part of predatory cattle, much of the land is unfenced. One good crop, in seasons when wheat will bring from 1¼ to1¾ cents a pound near the ground where it is raised, will pay for the cost of the land, at eight dollars an acre, in addition to defraying the cost of ploughing, seed and harvesting.

The main Southern Pacific Railroad, and the San Joaquin Valley branch of the Pacific Railrord now run through and afford rail connection to the whole San Joaquin Valley. Land is worth an average of about $10 per acre. Much of the bottom land—notably that on Bear Creek, near Merced—is worth $50 to $60 per acre, and pays a handsome percentage on those rates.

The Great Stearns, Grant,

Or rancho, twenty miles from Los Angeles, contains many thousand of acres of the very richest land in California. The grape, orange, lemon, citron, walnut, almond, and other semi-tropical fruits, attain their greatest perfection in that portion of the State. The most bountiful crops of the cereals and esculents of the temperate zone are also gathered there; 40 to 140 bushels of corn, barley, oats and rye per acre, and 100 to 500 bushels of potatoes, are raised in that region. The climate is balmy and delightful. Artesian wells have recently been bored in that locality. Water is obtained at depths of 40 to 100 feet.

Land on the Santa Ana River is worth $15 to $50 per acre. Much of the land in Los Angeles and adjoining southern counties is dependent on irrigation for certainty of crops, the rainfall being insufficient in about three years out of seven or eight; but, on the river named, a farmer named Sears raised 140 bushels of corn to the acre, without irrigation, in 1871.

Resume.

The writer does not pretend that the foregoing facts contain a full epitome of the location and prices of desirable land in all portions of California. There are many other localities equally deserving of mention, which are omitted only because he has not visited them, and has no facts in his possession relative to their lands. Nearly all of the most prominent valleys, north and south, have been referred to, however, and outlines of information as to the products and prices of land in them given. This, under any circumstances, is all that could reasonably be expected in the limited space of a daily paper,

It has frequently been claimed that land is too high in California. Had there never been snch a thing as the curse of Mexican grants and the monopoly to which they gave rise, undoubtedly land would now be cheaper and good Government land more plenty in the State; but, even after this admission has been made, it can still be claimed that land is really not dearer in this State than in the Western-Atlantic States, when the greater fertility of our soil, mildness of our climate, and advantages accruing therefrom are taken into account. Some of the States referred to have the advantage of California in the possession of more Government land; but a comparison of this State with Illinois, Iowa, Minnesota or Indiana will, we think, show conclusively that the prices asked here are not nearly as high, relatively, as they are there, particularly after allowance is made for the advantages of climate and productiveness alluded to. The valleys of this State are much nearer to tide water than the surplus grain raised in the States referred to. No farmer in this State has ever yet found it more profitable to use his grain as fuel than to sell it at the current rates; while in many of the extreme Westein States, prices—even in this year of extreme rates—are so low that corn has been quite generally used for fuel. We make loud complaints here of railroad charges, and they are still worse off in this respect in the Western-Atlantic States, as the following brief quotation from a recent issue of the Chicago *Tribune* will show;

"The present freight charges to New York are nearly double the average rates of last year, and the advance in freights is of necesssity taken from the price of grain in the hands of the producers. The rise in domestic freights is in sympathy with the advance in ocean freights, but the oppression upon the products is none the less severe. It consumes their product. It is no longer the case of sending one bushel to pay the freight of another; that operation no longer pays. The producer, if freights go any higher or the price of grain should fall in Liverpool, will have to send some money along, in addition to the corn, to pay the freight on the latter."

Upon the whole, therefore, it may be claimed that the farmer's advantages in California very greatly outweigh his drawbacks. Those who contemplate immigration to this State will certainly lose money every year they delay in coming. The State is growing; unpopulated districts are being settled, and railroads are being very rapidly extended. These and other marks of progress all tend to increase the price of farming lands.

The Brightening Prospects of the American Isthmian Canal.—The latest advices represent the prospects of the long-proposed Isthmian Canal as bright and brightening. The timely surveys ordered three years ago by the President—who takes a lively interest in the enterprise—while not exhausted for engineering purposes, are now sufficiently matured to justify several undeniable deductions.

Twenty-five miles an hour is shown by signal service observations to be the average velocity, of a storm; when it is twice that velocity, it becoms a tornado.

Value of Agricultural Experiments.

The State has gained many millions of dollars prospectively by virtue of a number of successful experiments which have been made in agriculture during the last ten years. There is the plan of dry sowing of wheat land, which, while there is nothing involving scientific research, and the usage does not always involve very thorough farming, yet taken in connection with summer fallowing has really augmented very largely the agricultural resources of the State. A way has been found to produce a good crop of wheat with the smallest possible quantity of moisture from rain fall. The minimum quantity would vary somewhat by proximity to, or remoteness from, the sea coast. In some of the interior valleys land thus treated would produce a fair crop with from twelve to fourteen inches well distributed through the season. In the coast counties, say from Monterey Bay to Humboldt Bay, a fair crop of wheat might be expected from summer fallowed land with dry sowing, with the help of eight inches of rain. These are the approximate facts which have resulted from a great number of experiments made during the last ten years.

During the same period, also, nearly all the experiments in reclaiming swamp land in this State have been made. Many of them were very costly and at best only prepared the way for better methods. The reclamation of swamp land is no louger an experiment—that is, one may now go about this business with the certainity of favorable results, and with a very accurate knowledge in advance of what the reclamation will cost per acre. A vast body of lauds, producing nothing, will be raised from a condition of comparative worthlessness to that of the very best lands in the State.

Then we were poorly off for grasses. The wild oats once so abundant were disappearing from the hill-sides. Overstocked grazing lands were producing less than formerly. A search was made in all quarters for some kind of grass which would survive the long droughts of the summer season. Except in a few natural meadows, hay crops were made from aunual sowing of tame oats, barley or wheat. When the crop was taken off there was nothing but dry stubble left. Out of nearly a hundred experiments in propagating new grasses one has been successful. But that one has already compensated for all the other failures. Alfalfa is the one perennial grass which is perpetuated by the roots, and which, when once well set, is proof againust the dryest seasons. The demand for alfalfa seed has been so great of late that the price has gone up from 16 cents a pound to about 30 cents, as we learn, with the tendeucy still upward. Farmers may yet have to devise measures to import the seed for themselves, in order to get it at any moderate price. Probably only the best land will be sown with alfalfa. But when an acre which would hardly sustain a sheep will carry fifteen, or five head of cattle, the productiveness has been raised to a point which not only surpasses the most sanguine predictions, but will finally add millions to the real wealth of the State. We have found out how, without irrigation we can keep the meadows clothed in perpetual verdure.

Passing over the cotton and ramie experiments, the former of which has been advanced nearly or quite to a successful branch of agriculture, and the latter is by no means given over as a failure, we have some most important results from the various trials which have been made in tobacco growing and in curing the leaf. Incidently we may note the fact that the bnsiness of manufacturing cigars in this city has quite outgrown mere local limits. A large number of men are constantly employed in making cigars for the Eastern market. But until recently nearly all the tobacco was imported. But now it is claimed that there is no tobacco produced in the United States equal to some which was grown and cured in California during the past year. These results are the fruit, it is said, of about fifteen years of experiments. We hear of an association which will plant 500 acres in tobacco the coming season. The result of one experiment last year was the production of 1,500 pounds of tobacco per acre at a cost not above four cents a pound, which was worth in the market at no time less than fifty cents a pound.

These are only some of the most important resnlts which have been obtained chiefly within the last ten years. It is doubtful if all the mineral discoveries on this coast, during the same period, have been of so much real importance to California as the successful agricultural experiments which we have noted.—*Bulletin.*

Cattle Trade.—Kansas City has become the depot of the cattle trade by rail from the regions beyond. This season 100,000 head of cattle have reached there by the Kansas Pacific railroad; 13,000 by the Missouri River, Fort Scott and Gulf Railroad; 18,000 by the Leavenworth Railroad, and by the Atchison, Topeka and Santa Fe Railroad 21,000—making a total of 152,000 head, with 50,000 head yet to come in. As a consequence of this concentration, Kansas City has become an important point for the slaughtering and packing of cattle.

The receipts for New York city for nine months of 1869 averaged 1,000 barrels of eggs per day. A barrel contains some 80 dozen, or 960 eggs; the aggregate, therefore, was in one day nearly 1,000,000. One thousand barrels of eggs, at an average price of 30 cents per dozen, amounts to $24,000 per day, or $8,709,000 per annum.

Home and Farm.

Hill vs. Level Culture.

A correspondent of *Moore's Rural* furnishes the following experiments on raising potatoes, which will, no donbt, interest many California growers of that nniversal escnlent:

On the first day of June I planted a piece of land containing one-eighth of an acre, with Peerless potatoes; soil a light sandy loam. It was manured with a small shovelfnl of yard mannre in the hill. One-half of the piece in alternate rows was hilled; the other half kept as near level as possible. The part hilled produced six bushels of large, marketable potatoes and three bushels of small potatoes. The part not hilled produced six bnshels and fifty-five pounds of large and two bnshels and two pounds of small potatoes—a difference of fifty-five ponnds of large in favor of the part not hilled, and a difference of fifty pounds of small in favor of the part hilled. The potatoes on the part not hilled were much larger and better than those in the part hilled. The season here has been a very wet one; therefore, I think more favorable for potatoes hilled than a dry one would have been. I believe a great deal of worse than useless labor is expended in hilling potatoes, as well as corn and other crops.

Applying Superphosphate to Potaloes.

I also planted one-fourth of an acre with Peerless, with just one bnshel cnt to single eyes, two pieces in each hill; soil, light sandy loam, manured with a shovelful of yard manure to four hills. On half of the piece in alternate rows, a small tablespoonful of superphosphate was pnt in each hill. Before the last hoeing a handfnl of unbleached wood ashes was put on the hills of the whole piece. The half on which phosphate was put produced seventeen bnshels and ten ponnds of large, and five bnshels and fifty pounds of small potatees. The part where no phosphate was put produced thirteen bushels and thirty-five pounds of large, and seven bnshels and fifty-five pounds of small potatoes—a gain of three bnshels and and thirty-five ponnds of large potatoes in favor of the phosphate, and a gain of two bushels and five pounds of small potatoes in favor of no phosphate. The valne of the phosphate applied to one-eighth of an acre was fifty cents.

I have cultivated some twenty-five varieties of potatoes, and think the Peerless is the best of them all in qnality, prodnctiveness and freedom from disease. Several varieties planted close to the Peerless this year rotted badly, while scarcely a tnber of the Peerless was affected.

Suit on a Wool Contract.

Kneeland & Hoglen are engaged in the business of wool growing at Larabee Creek, Humboldt county. On the 26th of March last they made a written sgreement to sell their spring elip of wool to T. R. Hutchinson, at the price of forty cents per pound in gold coin, delivered at Hydesville. It was estimated the clip would amonnt to about two thousand fleeces. The contract stipulated that the wool shonld be free of burrs or any foreign matter.

Hutchinson filed a complaint in the Nineteenth District Court, this morning, agaiust Kneeland & Hoglen, to recover damages for breach of contract. Hutchiuson alleges that the meaning of the agrecment was, that the wool named shonld be the wool of old sheep; that it is the cnstom of wool growers in California to pack their wool in large closed bales or baga and that purchasera have no opportunity of examining the same. The wool amounting to 8,430 ponnds was received by him in September last, and the sum of $3,881.04 was paid therefor.

The wool was then sent to a wool exchange to be assorted and graded, when it was discovered that excepting abont 500 pounds, it was lambs' wool, and dishoneatly packed. Seeds, burrs and foreign matter were found in large qnantitiea. Whereupon plaintiff offered to return the wool to defendants and demanded that his money be repsid, which tender defendants refuse. Hntchinson aaks damagea in the sum of $3,921.94, with interest and costa.

Oyster Shells and How to Burn Them.—In reply to "A Subscriber," Perryville, Penn.: Oyster shells, when bnrned, produce a lime exactly similar to that from a majority of the pure limestones. Any animal matter they may contain, of course, is deatroyed by the heat, and the simple canstic lime, with a very amall proportion of phosphatc of lime, remains. They may be burned by putting them iu conical heaps, with coal or wood for fuel, spreading over the heaps damp leaves, straw, orsoda, and covering closely with a few inchea of earth. The heap should be fired and burued slowly, air being given as nceded by mesns of ventholes at the bottom to austain slow combustion. If the heap falls in at any place, as it burns down, more shells should be added nntil the hole is filled up, damp leaves thrown on, and covered again with earth. Three days are sufficient to burn a heap of 500 to 1,000 bushels. When they are burned, the lime should be spread immediately, or while in a caustic state, on plowed ground, and harrowed in, or on grass land, and a harrow drawn over it to insure an even distribntion.

Scientific Exactness in Curing Meat.

The recent improvements in the processes for preserving meat are excellent exemplifications of the tendency to bring careless and haphazard operatious under the control of exact method. Nothing can be simpler than the theory of salting meat, and nothing more irregular and uncertain in its resnlts. The outer portiou of the meat is geuerally over-hardeued by the salt, while the interior is withdrawn from the antiseptic action. The smoking, where that is practiced, is liable to equal irregularity.

Mr. Martin de Lignac brings the whole thing under strict rules of quantity, and with certain aud uniform results. By his process the pieces of meat are first weighed, and it is determined beforehand just how mnch salt each piece must have. Each ham is laid on a scale, while in the other pan is placed a weight equal to the ham, and the brine which it is to receive. A flexible india-rubber tube terminates iu a narrow pipe, which is made to penetrate to the interior of the ham. A tap is then turned, and the saline mixtnre forced into the cellular tissues of the meat under a pressnre eqnal to a column of water sixteen feet high. The mass of the ham swells, the weight increases, and at the precise moment when it has received the proper amount of brine, as indicated by the balance, the workman closes the tap.

The interior being thns duly salted, the exterior parts are made to receive their share by steeping in a tub of brine for a suitable time afterward. They are then carried to the smoking chamber, which is kept at a steady temperature, and a given amount of smoke is intro-dueed by the nniform combnstion of a weighed quantity of oak wood in a fire-room below. The pyroligneous action is therefore constant and equal, and nothing being left to chauce, the result is always successful.

I. L. D.—Under the above peculiar heading the Carson *Appeal* gives the following item: We were allowed by Mr. Whitehill, State Mineralogist, at our earnest solicitation, to publish the following item of his travels through Southern Nevada on his exploring tour in the Summer of last year. Near the summit of the Clarke mountains, in the Kingston range, on its eastern slope, there is a limestome cliff with smooth surface, almost perpendicular, and 250 feet in hight. About 100 feet from the base of the cliff, on its front, are engraved the above characters of immense size, 60 feet high and 2½ deep which may be seen at a great distance. There is no tradition respecting these characters. The cross and the Roman letters seem, however, to argue the workmanship of Jesuit missionaries. A mission was established at the mouth of the Gila river in 1633, and also at varions points in New Mexieo, by Eusebins Kino. Thero is also an old map extant representiug forty towns and villages in Arizona. Probably the letters were made by the followers of the good priests while making some settlements in the vicinity, in their endeavors to Christianize the Indians; or while passsing by on a tour to California, where permanent missions had beeu established.

Value of Apple Pomace.—Apple pomace, at the cider mills, is generally thrown away as worthless. It may be used with benefit as a mulch for apple trees and currant bushes. It kills the weeds and grass about them and enriches the soil. I have applied it behind the cattle in the barn as an absorbent, and made a compost heap of it by mixiug a cask of lime to half a cord of pomace. Cattle eat it if given to them before it hests and sours, and I coincide with the opinion nf an old farmer, who remark, ed, that the best way to compost any vegetable matter was to pass it through the stomachs of the cattle, if they would eat it. Most catlle eat it if not fed to them in too large quantities at one time. The pomace of apples contains about ten per cent. of starch, gelatine aud fibre and is fully equal as good food for stock as turnipa of the same weight.—*Maine Farmer.*

Tho above may be snggestive of economizing the grape pomace, of which large qnantities are now accnmulating, in various parts of the State.

Encouragement to Farmers.—An agricnltural writer furnishes the following conundrums for farmers to consider: "Farms and farm hands, with the current prices, are poor property and return a small interest, but remembering Portland, Chicago, and Boston, and remembering there is not a town of 16,000 inhabitanta that may not be swept out of existence in a night, and remembering there is no absolute and ever-lasting investment bat in the soil, is not 3 per cent. in perpetuity better than 6 or even 10 per cent. in the nnstablo commodities of brick and mortar, bonds and mortgages, insurance policies, and warrantee deeds which warrant nothing at all?"

Burning Lime with Corn.—The Waterloo, Iowa, *Courier*, iu commenting on the buruing of corn for fuel, says:

"While at Iowa Falls, recently, the writer observed that Mr. Wells, was burning corn as fuel in his patent lime kiln. Mr. W. assures us that with wood and corn in. about equal parts, the fire was better, and scarcely more expensive, and that the lime was somehow vastly better. Really it looked like the 'loug ago,' to see the hundreds of bushels of bright corn thns consnmed."

Another "Ancient City."

Col. W. T. Roberts, who recently went down to Arizona, hunting for diamonds, etc., reporta the discovery of the ruins of an ancient city, which covers an area of about three square miles. It was enclosed by a wall of sandstone neatly quarried and dressed, ten or twelve feet thick, and which, judging by the debria, was fifteen or twenty feet high before its fall. In most places it had crumbled away and fallen, and was covered with sand, but in many places it was still standing six or eight feet above the sand-banks which had drifted around it. The entire area inside of this had at one time been covered with houses, built of solid aandstone, which showed excellent masonry in their constrnction. This ancient city is situated in Arizona, about ninety miles from the boundary line between Utah and Arizona, and the same distance from the western Colorado line. It has the appearance of being an old Aztec city that has been deserted for hundreds of years and fallen to ruins. It is entirely of stone, and not a stick of worked timber is to be found among the ruins. Nothing but the walls are standing, and none of them now are left more than eight or ten feet above the sand, which is eight or ten feet deep. The walls atill bear the traces of many hieroglyphics, cut deep into them, showing various Indian customs and superstitions. There are also the ruins of atately monuments, built of square block sandstone, well quarried and showing good masonry, which are worked with notches and crosses cut into them at regular intervals.

The city is covered with sand, which it is thought has blown there from the desert. The sand has become solid and packed by the rains. Under the sand is a layer of blue clay, six or eight feet deep. No bones, implements or relics of any kind were found, with the exception of some pieces of pottery of dark color. These were embellished with paintings of flowers and ornamental figures in blue colors. The coloring matter is of a blue mineral substance of some kind. It is perfectly indelible, and pieces! of pottery which have been exposed to storms, which have worn away the solid masonry of the walls of the city, show their colors as fresh and bright to all appearances as when new. The pottery itself has been found to be perfectly fire-proof upon trial in crucibles and furnaces.

What is Slate, and How was it Formed?

That slate may have been once mud is made probable by the simple fact that it can be turned into mud again. If you grind up slato, and then analyzo it, yon will find its mineral constitnents to be exactly those of a very fine, rich, and tenacions clay. Wherever the top of the slate beds and the soil upon it is laid bare, the black layers of slate may be seen gradually melting, if I may nse the word (saya the Rev. Charles Kingsley in "Town Geology"), under the influence of rain and frost, into a rich tenacious clay, which is now not black like its parent slate, but red, from the oxidation of the iron which it contains. Bnt, granting this, how did the first change take place? It must be allowed at starting that time enongh has elapsed, and eventa have happened, since our snpposed mud began first to become alate, to allow of many and strange transformations. For these slates are found in the oldest beds of rocks, save one series, in the known world; and it is notorious that the older and lower the the beds in which the alates are found, the better—that is, the more perfectly elaborate—is the slate. The best alatea of Snowdon (I must confine myself to the districts which I know personally) are found in the so-called "Cambrian" beds. Below theae beds but one series of beds is as yet known in the world, called the "Laurentian." They occur to a thickness of aome 80,000 feet, in Labrador, Canada, and the Adirondack mountaina of New York; but their representatives in Enrope are, aa far aa known, only to be found in the northwest highlands of Scotland and in the island of Lewis, which consiats entirely of them. And it is to be remembered, as a proof of their inconceivable antiquity, that they may have been upheaved and shifted long before the Cambrian rocks were laid down "nnconformably" on their worn and broken edges.

Street Car Tracks.—Much complaint is made of the obstructions to ordinary travel presented by the street car tracks of this and other cities in the United States. The most or all this objection could be avoided by the adoption of the English form of street car tracks. The car tracks in Loudon consist of a flat atrip of iron, with a groove for the flange of the wheel to run in. The rail is not sunk, but laid exactly level with the surface of the pavement, thus preaenting no obstacles to ordinary vehicles. The cars are constructed with outside seats as well as inside. If the plan of track described works well in London, why will it not also answer for San Francisco?

Delays of Law—Courts of Conciliation.

No one has satisfactorily answered the question, why is the business of our Courts always behind hand? This subject occupied the attention of the French Government, years ago, and a remedy was devised, which has worked admirably in all lawsnits that occur in the ordinary dealings of industry and commerce.

Courts of conciliation were appointed for every district of town and county. The Judges are selected from retired men of business generally, who know the usual disputes between neighbors, and who have an instinct that quickly discerns which is the crooked stick. We have by invitation, attended the hearing and deciding, in a case in Paris. The written agreement, as is usnal, had been drawn by the magistrate two months before. In a moment he perceived who was wrong, and in ten minutes the case was settled. He invited the plaintiff to retire, and then addresssed the defendant: "My friend, you have got the wrong impression, will you take my advice?" "Yes, sir." "Then let me settle the matter for you." The defeudant retired and plaintiff re-entered. "It was a Madame, Madame," said the Judge, "you are both good people—too good and too wise to affect yourselves, and break friendship over such a matter. I am sure you would willingly yield a little on both sides rather than nurse ill-feeling." "Oh, yes, Monsieur, if he would also be reasonable. I leave it all to you, Monsieur." In a moment they shook hands; apologised for words said in anger; all was settled and two adversaries were made friends. Moreover they entered into an extended contract, in proof of reconciliation. No lawyer appears, no costs are paid, and not one case in fifty is ever appealed. And of such appeals, not one case in a hundred is ever reversed. Surely the system is eminently practical for California. Let benevolent minds be interested in advocating this most desirable reform.

There are just snch men in California, who are competent in capacity and inclination for judges of courts of conciliation, and to whom such daily occupation from two to three o'clock would be a merciful dispensation, to say nothing of the alluring title it would confer. They must have no politics. How much ill-feeling, how much permanent malice now engendered would be averted, if all mechanics and tradesmen would make bargains before such a judge and mutually agree to be bound by his final decision!

This is worthy of the notice of all associations. It ought to be the leading object of every united confraternity to confer upon its members and their families, the nnquestioned benefits of this system, aa well for its economy as for its morality.—*Alta.*

Shell Mounds on the California Coast

San Pablo is about fifteen miles from Oakland, and lies almost due north, and the road follows the beach. When within three miles of the town we came to a shell mound, says a correspondent of the St. Lonis *Globe*, rising up from the plain to almost the dignity of a hill, and which is now covered with a growth of shrubbery. There is no telling when or by whom that mound was raised, but it is almost a mile long and half a mile wide.

Fragments of pottery made of red earlh, not to be obtained anywhere in this State, are found on the surface and near the top; and about two years ago Mr. McHenry, the owner of the land, dug a trench, and at a depth of twenty feet, sixty feet in from the west, near the base, found numerous skeletons of Indians of all sizes, and some bones of dogs and birds, and many implements of stone. One baby had been rolled in a monstrously long piece of red silk, like the mummies, and had been covered with a coating of a sort of asphaltum. Mr. McHenry also found in other parts of the hill evidences enough to show that this mound was a burying place for some extinct tribe of Indians, as the skulls are different from all others known in some particulars.

Where the red silk came from would puzzle any one to know, as this must have been a primitive race, judging by the rude implements and utensils. All the skeletons were in a sitting posture, with their faces turned northward. The shells that form this mound are oyster, clam and mussel shells, all having been exposed to the action of fire, and nearly all broken fine. Very rarely are entire shells found. The same kind of mounds, though not so large, are found near San Mateo, on the San Francisco side. They are all near the shores of the bay, and have been made of shells of the oysters and mussels that the Indians used as food, and which they evidently roasted to open.

The Reported Chicago Grain Frauds.—Some of the Chicago papers are demanding that the grain stored in that city be weighed so as to ascertain the exact amount, as it is believed by many that the quantity stated as stored does not exist, except on paper. It is stated, that one railroad has reported 100,000 bnshels received, while the Inspector claims that not one-tenth the amount actually came into that city over that road. Also, that the weekly statement shows an increase, while actual additions of receipts and exports show a decrease.

The Leavenworth, Lawrence & Galveston, and Kansas City and Santa Fé Railroad Companies are building large machine shops at Ottawa, Kansas, at a cost of $400,000.

Useful Information.

How to Varnish.

Varnishing should always be done in a warm atmosphere 72 deg., or as warm as you can comfortably work in. In a reduced atmosphere water is always present, an invisible dew, and will give to varnish a milky and clouded appearance, even on a fine summer day this may happen, and the only way to obviate the difficulty is to heat to 72 degs., sufficient to keep the moisture suspended in the air until the solvent has entirely evaporated leaving the gums in a thin glossy coat; the brilliancy and defensive value of the varnish will depend upon this.

To produce a brilliant surface have your work in the varnish room a few hours before varnishing that it may acquire the same temperature as the atmosphere. Smooth the surface, wash off and wipe dry with a chamois skin or piece of old silk, removing all traces of dust, moisture or grease—no oil or grease should be allowed or used—have your brush as large as the nature of the work will admit—soft, clean and free from loose hair. Lift the varnish lightly with the brush, charging moderately, and apply a thin coat. Begin at a little distance from the edge or at the inside of the panel, highest point first, and work to the outside edge in direct, long, rapid, and steady strokes with a moderate pressure, sparingly upon the edges and angles, working alternately toward the ends; spread evenly and quickly the thickness of paper and draw lightly for finish, in this great care and watchfulness are required.

After varnishing expose your work to the heat of the sun or keep in heat free from dust and draught. Cold air and draught passing over varnish will dull the surface wherever they extend. If the varnish should so become chilled. the brilliancy and clearness may be restored by giving the surface another thin coat, and immediately hold near the fire to dissolve the chilled coat but not too near to blister.

The Water Telescope.— For seeing under water, consists of a tube to enable a person looking over the gunwale of a boat to rest the head on one end, while the other is below the surface of the water; the upper end being so formed that the head may rest on it, both eyes seeing freely into the tube. Into the lower end is fixed (water-tight) a plate of glass, which, when used, is to be kept under the surface of the water; so that the spectator, looking down the tube, sees all objects at the bottom whose reflective powers are able to send off rays of sufficient intensity to be impressed on the retina, after suffering the loss of light caused by the absorbing power of the water. Light in passing through pure sea-water, loses half its intensity for each 15 feet through which it passes, says Sir John Leslie. In clear water the bottom may thus be seen at the depth of twelve fathoms. This contrivance is much used in sealshooting along the northern and western islands of Great Britain, where, sometimes in the form of an ordinary washing-tub with a piece of glass fixed in its bottom, the shot seal is looked for, and the grappling-hook let down to bring him to the surface. The Norwegian fisherman also often use this telescope when their anchors get into foul ground, or their cables warped on a roadstead.

Motion of the Eye.—On coming into a room, we think we see the whole side of it at once—the pictures, the cornice, the chairs—but we are deceived; being unconscious of the Motions of the Eye, and that each object is rapidly, but successively, presented to it. It is easy to show that if the eye were steady, vision would be quickly lost; that all those objects which are distinct and brilliant, are so from the motion of the eye; that they would disappear if it were otherwise. For example, let us fix the eye on one point—a thing difficult to do, owing to the very disposition to motion in the eye. When we have doue so, we shall find that the whole scene becomes more and more obscure, and finally vanishes. If we then change the direction of the eye but ever so little, at once the whole scene will be again perfect before us. These phenomena are conseqent upon the retina being subject to exhaustion, by the lights, shades, and colors of objects continuing to strike upon the the same relative parts, and thus exhausting the nerve; but when the eye shifts, there is a new exercise of the nerve.

Cultivate Habits of Careful Observation.—Prof. Buckland in a late address asked his audience, which he supposed contained young men who one day would be among the rulers and chief men of our land—to see for themselves, to hear all they could, but not accept as gospel what they heard till they had proved it. He wished to encourage a habit of examination and inquiry among young and old, and gave amusing instances of attempts that had been made to impose on himself. A "monster," said to have been shot in the woods of Japan, was brought to him, and a large sum asked for it. A hideous wretch it was when produced, but he soon discovered that it was made of gutta percha, and was ingeniously fitted with eyes, teeth, nails etc., from various incongruous animals.

Useful Effective.—A citizen of Bedford county, Va., has invented a machine to melt the snow and ice on a railroad track as the train runs, by means of a flame of sufficient intensity to produce the result instantly. The invention is just in time if effective

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Power of the Eye in Viewing Minute Objects.—The smallest particle of a white substance distinguishable by the naked eye upon a black ground, or of a black substance upon a white ground, is about the 1-400th of an inch square. It is possible, by the closest attention, and by the most favorable direction of light, to recognize particles that are only 1-540th of an inch square; but without sharpness or certainty. But particles which strongly reflect light may be distinctly seen, when not half the size of the least of the foregoing; thus, gold dust of the fineness of 1-1125th of an inch may be discerned with the naked eye in common daylight. When particles that cannot be distinguished by themselves with the naked eye, are placed in a row, they become visible; and hence the delicacy of vision is greater for lines than for single particles. Thus, opaque threads of no more than 1-4900th of an inch across, or about half the diameter of the silkworm's fibre, may be discerned with the naked eye when they are held towards the light.—Carpenter's *Animal Physiology*.

Bogus Chinese Pearls. — Minute descriptions have been written of the manner in which the Chinese claim that they obtain real pearls by placing foreign substances within the shell of the fish which produces pearls, when the animal, unable to get rid of it, makes a deposit of "pearl" matter around it, so that it becomes a real pearl. Professor Buckland has recently shown that this is possibly a deception which has been quite successfully practiced upon the "outside barbarians." During a recent lecture he exhibited a large pearl shell in which were seven or eight images of the God Buddha, coated with a secretion of mother of pearl.

The professor said it was claimed by the person who presented the shell that the oyster deposits this secretion itself, when Master John Chinaman inserts these images. Mr. Buckland was sceptical, but said nothing till he had proved that the secretion was as much artificial as the little images themselves. It was a solution of the real mother of pearl, artificially applied and painted over the images.

How the Diamond Cuts Glass.—Dr. Wallaston ascertained that the parts of the glass to which the diamond is applied are forced asunder, as by a wedge, to a most minute distance, without being removed; so that a superficial continuous crack is made from one end of the intended cut to the other. After this, any small force applied to one extremity is sufficient to extend this crack through all the whole substance and across the glass; for since the strain at each instant in the progress of the crack is confined nearly to a mathematical point at the bottom of the fissure, the effort necessary for carrying it through is proportionally small. Dr. Wollaston found by trial that the cut caused by the mere passage of the diamond need not penetrate so much as the two-hundreth part of an inch. He found also that other mineral bodies, recently ground into the same form, are capable of cutting glass; but they cannot long retain that power, from want of the requisite hardness.

Force of Lightning.—In August, 1846, St. George's church, at Leicester, England, was entirely destroyed by the effects of a thunderstorm! The steeple was burst asunder, and parts of it were blown thirty feet; while the vane-rod and top part of the spire fell perpendicularly down, carrying with it every floor in the tower. Mr. Highton, in comparing the power of this discharge of lightning with some known mechanical force, states, that one hundred tons of stone were blown a distance of thirty feet in three seconds; consequently a 12,220 horse-power engine would have been required to resist the effects of this single flash.

Substances that Most Resist the Action of Cold.—Pure alcohol, ether, bisulphide of carbon, and glycerine do not freeze at any temperature to which they have ever yet been subjected. Ammonia freezes at about 45° below Fah. zero, and pure nitric acid at about the same point. Mercury freezes at—39° Fah., sulphuric acid and some other substances require also a temperature far below the zero of Fahrenheit scale to produce solidification. The union of any liquid, which by itself remains fluid at a very low temperature, with water, will raise its freezing point.

The Pilot Fish.—That little fellow, crossed with blue stripes, that is said to pilot the shark to its prey is really no pilot at all. The idea is a delusion. He is no more a pilot to a shark than the starling is to the sheep. Do we think the starling is in love with the sheep that it settles on its back? No; it is then busily ridding the sheep of its natural tormentors—its Norfolk Howards. Such an office does the so-called pilot fish fill in regard to the shark.

Utilizing Cotton Waste.—The experiment at Westville, Conn., of a factory for the extracting of oil from cotton waste has proved a decided success. By this process old grimy, greasy rags and waste cotton are rendered perfectly pure, odorless and merchantable. The waste of the Connecticut and Massachusetts cotton mills will more than supply the Westville Oil Extracting Works with materials.

New Use for Mica. A new use has been found for mica. It is now attracting public attention as a material for roofing buildings, for which purpose it has been found to be peculiarly adapted.

Good Health.

The Blood.

Blood, in its ordinary coudition, is always fluid; withdrawn from the vessels of the living animal and left for a time to itself, it separates into two portions, a semi-solid mass, and a liquid portion, in which the mass floats; the solid part is called the clot. This phenomenou (the formation of the clot) is due to the presence of fibrine in the blood; it is held in solution in the serum during life; but when this loses its influence over it, it solidifies, euclosing with it the globules; and thus forming the red gelatinous mass called the clot.

Blood is the special agent of nutrition, and is the general restorer of what is lost. But in addition it is proved, by simple experiments in blood-letting, and of transfusion, to form an essential stimulus for the performance of the functions of life. By severe loss of blood we become enfeebled and seemingly dead; but if, before this happens, the blood of another animal be transfused into the veins of the suffering individual, the vitality is restored.

The importance of the globules is also proved by the same experiment; for if simple serum be so transfused, death takes place. The fibrine of the blood also plays an important part; for when the blood is deprived of its fibrine and injected into the veins of a dog, the animal dies with symptoms resembling those of putrid liver. The influence of the blood over nutrition may also be readily demonstrated. Withdraw the blood more or less from an organ, and it gradually wastes away in proportion to the quantity withdrawn, while, on the contrary, the greater size of the muscles in those who employ them actively, and hence draw to them a larger amount of blood. To the important functions and uses of the blood, some physiologists go so far as to assert that "the life is blood," in that the entire principle of life exists in the blood.

A morbid condition of the blood is the fruitful source of many diseases. Cleanse the vitiated blood whenever you find its impurities bursting through the skin in pimples, eruptions or sores; cleanse it when you find it is obstructed and sluggish in your veins; cleanse it whenever it is foul. Keep the blood healthy and all is well; but with this vital fluid diseased, there can be no lasting health.

Poisonous Confectionery.—If a report just presented to the Newcastle (England) town council had been available at the time Christiana Edmunds was on her trial, it might have been found useful in support of the theory of her lunacy. No one but a lunatic, it might have been urged, would take the trouble to poison confectionery and thereby incur suspicion, where there are, ready-made to hand and openly sold in shops, sweetmeats artistically coated with deadly poison. That such is the case in Newcastle-upon-Tyne, is shown by a report of Mr. Pattinson, analytical chemist, upon which the local corporation have decided to take immediate action. Mr. Pattinson says he has examined various samples of sugar confectionery sold in Newcastle, and finds that nearly the whole of the articles colored yellow and orange are so colored by chromate of lead. Out of thirty-five different kinds of sweetmeats examined, obtained from twenty different dealers, twenty-eight were colored by this poison. Some of the articles contained upwards of a tenth of a grain of metallic lead, the engaging substance being supplied to manufacturers under the names of "lemon chrome" and "orange chrome." Mr. Pattinson adds that "Some of the confectionery contained plaster of Paris to the extent of 1¾ per cent., besides a good deal of wheaten flour." If parents were allowed their choice, they would doubtless prefer this last named adulteration to the lead salt mentioned above.

Mechanism of the Bones.— In the human skeleton there are commonly enumerated 260 bones, which present every variety of size and figure. But all these varieties may be reduced to three classes: the long and round, as the bones of the upper extremities; the broad and flat, as the bones of the skull; or the short and square, as the separate bones that compose the vertebral column. The long bones are adapted for motion, the flat for protection, and the square for motion combined with strength. Accordingly, the long bones are moulded into lengthened cylinders, and form so many levers, exquisitely constructed and combined. In the employment of the flat bones for the covering of some of the more tender and delicate organs, as the brain and spinal cord, the form of these bones adds to their strength, as in the vaulted roof of the skull; while in the construction of the vertebral column, composed of the short and square bones, which are so adjusted, as to afford a limited range of motion with a great degree of strength, so many and such opposite purposes are effected by means so simple yet so efficient, that no fabric constructed by human ingenuity approaches the perfection of this admirable piece of mechanism.

An Intelligent Druggist.—It is said a Syracuse druggist recently received the following prescription, with a request to put it up:—Fix kramps—Tinct kamfire, won ounce; tiuct lodenum, a little tinct hot drops, a few drops; tinct kyan pepar, five cents worth; klonform a little, but not much, as it is dangerous medicine. Dose, half-teaspuneful when the kramps come on.

Nourishment in Food.

The wholesome or unwholesome character of any aliment depends, in a great measure, on the state of the digestive organs, in any given case. Sometimes, a particular kind of food is called wholesome because it produced a beneficial effect of a particular character on the system of an individnal. In this case, however, it is to be considered as a medicine, and can be called wholesome only for those whose systems are in the same condition. Very often a simple aliment is made indigestible by artificial cookery. Aliments abounding in fat are unwholesome, because fat resists the operation of the gastric juice. The addition of too much spice makes many an innocent aliment injurious, because spices resist the action of the digestive organs, and produce an irritation of particular parts of the system.

In any given case, the digestive power of the individual is to be considered, in order to determine whether a particular aliment is wholesome or not. In general, we can only say, that aliment is healthy which is easily soluble, and is suited to the power of digestion of the individual; and, in order to render the aliment perfect, the nutritious parts must be mixed up with a certain quantity of innocent substance affording no nourishment, to fill the stomach; because there is no doubt that many persons injure their health by taking too much nutritious food. In this case, the nutritious parts, which cannot be dissolved, act precisely like food which is, in itself, indigestible.

It is a very mistaken idea that the nourishment in food is according to the quantity; a person may eat a great deal of some articles, and receive very little nourishment from them. The quantity of nourishment depends greatly on the aromatic flavor contained in food; and whatever is insipid to the taste is of little service to the stomach. Now, the difference between good cookery and bad cookery lies principally in the development of the flavor of our food; articles properly cooked yield the whole of it; by good cookery we make the most of every thing—by bad cookery, the least.

Power of Man to Endure Cold.—One who took part in a telegraphic expedition in Siberia writes as follows:—"I didn't believe that it would be possible for me to lie out in the snow, without shelter, in a temperature of even 20 deg. below zero, but I have done it once in 50 deg. below, and repeatedly in 45 deg. One of Bush's parties, in February of last year, passed the night on an open, barren steppe, with their spirit thermometer standing 78 deg. below zero, or 100 below the freezing point. Quicksilver they molded into solid bullets with four minutes' exposure to the air. It is true they did not dare to go to sleep that night, but I believe that, had they been properly fitted out with heavy furs and wolf-skin sleeping bags to tie over the head, they might have done it with perfect safety.

"I'm afraid you would think that I was availing myself of a traveler's privilege, and relating a very large 'yarn,' if I told you how comfortably I have slept on the snow in a temperature of 30 deg., 40 deg. and 45 deg. below. We are obliged to sleep in fur bags, of course, with our faces entirely covered, to take the utmost care to have our fur stockings perfectly dry; but I have slept in that way through the long Arctic nights as comfortably as ever I did in bed at home."

The Art of Walking.—In a graceful human step, the heel is always raised before the foot is lifted from the ground, as if the foot were part of a wheel rolling forward; and the weight of the body supported by the muscles of the calf of the leg, rests for the time on the fore part of the foot and toes. There is then a bending of the foot in a certain degree. But where strong woodeu shoes are used, or any shoe so stiff that it will not yield and allow this bending of the foot, the heel is not raised at all until the whole foot rises with it; so that the muscles of the calf are scarcely used, and, in consequence soon dwindle in size, and almost disappear. For the same reason in Paris where the streets have (few or) no side-pavements, and the ladies have to walk almost constantly on tiptoe, the great action of the muscles of the calf has given a conformation of the leg and foot, to match which the Parisian belles proudly challenge all the world—not aware, probably, that it is a defect in their city to which the peculiarity of their form is in part owing.

Bisulphide of Carbon on the System.—This substance is a deadly poison. Its vapor when inhaled converts the iron of the blood into sulphide of iron, causing death. It is a very volatile liquid; and its manufacture is quite dangerous from the above mentioned reasons. A vessel of it placed in a close room would cause death about as rapidly as carbonic acid or charcoal fumes. A cup full of the bisulphide placed in a tight apartment filled with grain will in a few hours kill not only every weevil but also its larvæ and eggs. It is a very useful substance, but at the same time, under certain conditions, an extremely dangerous one.

A correspondent of the *Scientific American* calls attention to the danger to be apprehended from the efforts now being made to free it from its very disagreeable smell, and says:— "Why on earth people want to smell bisulphide of carbon for, I cannot understand. The more disagreeably it smells the better, for thereby some warning is given of its presence.

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PRINCIPAL EDITOR.....W. B. EWER, A. M.
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SAN FRANCISCO:

Saturday, Jan. 4, 1873.

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FARMERS' CLUBS.—We have heard of the organization of several new Clubs in different parts of the State, and if the Secretaries of the same will report to us their proceedings, or we can obtain the same from the local papers, we shall always find room for them, and thus spread abroad the good that may be developed by their discussions. If the farmers of the State would unite under a grand central, union organization, and work together for their own interests and the general good, they could become a power in the land that would be felt.

THE CHRONICLE PRESS.—We were among the invited, to witness the performance of the new, *Chronicle* Press, now in full and complete operation in the basement of the building occupied by the proprietors of that popular and vigorous daily. To say that we were highly pleased, tells but half the story of our belief, for we doubt if there is a more perfectly working piece of machinery in the form of a printing press on the Continent. It wasn't the champagne that prompted this.

INTERESTING TO WINE GROWERS.—It will be seen by reference to our advertising columns that the California Vine Growers' and Wine and Brandy Manufacturers' Association are to have a meeting at Sacramento, on the 15th of January next.

They propose to have our products of the grape represented at the International Exhibition at Vienna, and to transact other business of importance, and a general attendance on the part of all interested in this great industry should be had.

EVERY farmer ought to plant at once a tract of land in forest trees for his own use.

A Year of Great Interest.

We expect 1873 to be a year of more than ordinary interest to the agriculturists of California. During the prosperous year just closed, innumerable projects have been conceived, that only require another year in which our garners shall burst with their fullness, to see them all in a condition that will interest not only our own people, but the people of the world.

The great question of, can we raise cotton? seems to have been pretty clearly established if not definitely answered in the affirmative. But still it wants just one more year with its greatly extended acreage of cotton, to satisfactorily establish it as a fixed fact; and now that we have a prospect of all the rain necessary for that or any other crop, 1873 will be looked to, to settle this important question.

Ramie, jute, opium and silk are among the products that another year will determine as to there adaptability to many localities in the State, where at present there exists at least a doubt. The present winter, should it continue wet, with accompanying floods, will almost settle the question of the stability of the levees that have been raised for the reclamation of the tule lands of the two great valleys.

Large districts of country will have been brought under cultivation by means of artificial irrigation, and the effect of winter, spring and summer irrigation, in ditches or spread out upon the surface, will, for the first time in the State on a large scale, be thoroughly tested, and we have no doubt its immense benefits clearly demonstrated. Its effect upon an extended cotton culture, on lands that without it would produce nothing, will be one of unprecedented interest, as affecting the value of large districts of our State.

In the live stock department, more than the usual interest has been shown in the importations of improved breeds of animals, that have found purchasers all over the State, indeed Oregon, Washington and Montana are in no respect behind us in their efforts to grow superior stock, and immense herds of sheep and cattle have found their way there to test the capability of their climate for the wintering of stock upon the natural grasses of the country, and great interest is centered in the result.

There is a fair prospect that both wool and mohair will find a market at our doors, at goodly rates above the ruling prices of last year. Should this transpire and the coming clip, with what was left over from last year, be pretty generally disposed of, and we have the anticipated yield of fruits and cereals, a greater interest will be felt, as to what California's future is to be, than has been since the golden interest of the early days.

We Mean Improvement.

We have now been with our readers for two years. We claim to have given a better paper during the last twelve months than before, and yet there is room for improvement. We shall strive to maintain our paper as the best of its kind in the world, for the farmers of the Pacific Coast. We have year by year an additional experience to profit by; we shall embellish our journal with finer, and a larger number of engravings than ever before, and have made the arrangements to do it. Our market reports will be made by our own reporter and can be relied upon.

If our friends will remind us of anything we omit, or will suggest that which to have noticed, would interest them, we hold ourselves ready to respond to the fullest extent in our power. We are satisfied that our readers appreciate the correspondence that weekly appears in our columns; and for this reason we hope to see it largely extended and over many new signatures.

TO OUR SUBSCRIBERS AND FRIENDS IN MONTEREY AND SANTA CLARA COUNTIES.—Our General Agent and Traveling Correspondent, Mr. L. P. McCarty, will visit the following places during the month of January:—Watsonville, Castroville, Salinas City, New Republic, Natividad, San Juan (South), Gilroy, San José, Santa Clara, Saratoga and Mountain View. San Joaquin and Alameda Counties will be visited by the same Agent during the month of February. We commend him to the kind attention of those on whom he may call, and hope he will be able to increase our already large lists of subscribers in the places named; and we will try and see that the RURAL shall meet their fullest expectations.

Pear Culture.

Experience has demonstrated that the pear withstands the vicissitudes of the climatic influences of California, even better than the apple; and that its culture in all parts of the State has met with complete success. It is undoubtedly better fitted to the warm sunshine of our long summers than the apple, though the latter may find its genial position at hights among the foothills and mountains where the pear would not as well succeed.

Warm sunny France has ever been the home and paradise of the pear, and from there we derived all of our best varieties, until at last a few kinds were originated in our own Atlantic country worthy of a place in the catalogues of good pears. With our climate, so strikingly genial for the growth of this excellent fruit, we ought to originate at least a few new varieties equal to the best, and we hope pomologists will turn their attention to this subject.

The pear, particularly the autumn and winter varieties, will bear transportation better than the apple, and bring a higher price both in the home and Eastern markets. Indeed, it has already become an export fruit for the European market, and one which will increase as the qualities for export shall become more fully developed by experiment, and the tastes of consumers consulted.

Of all fruits, perhaps no one is better adapted to general use, as an article of food. Its inviting appearance, sprightly vinous flavor, sugary, melting, aromatic taste and nutritious ingredients, both in its fresh and cooked state, should commend this fruit to an increased and extensive cultivation.

Scions for Grafting

Now is the time to make all needed collections of apple and pear grafts for use next spring and upon orchard trees, or any time upon the roots of trees taken from the ground to be cut up into three or four inch pieces, to be grafted at leisure and packed away in moist earth in cellar or outhouse to await the spring setting in the nursery row.

In the choice of scions never take from the water-shoots or suckers that start from the body of the tree and push up through the older branches; but preference should always be given to sound and fully matured wood, at the ends of the lower or more nearly horizontal limbs. Carefully conducted experiments have shown that trees grown from such scions are more likely to produce trees of a low, spreading habit than when taken from the central, top branches.

Cuttings should, if possible, be cut with half an inch of the previous year's wood, tied in bundles, made even at the butts, all properly marked or labeled so that no mistake can occur in regard to kinds. Set them upright in in moist earth, pressing each bundle firmly down into it, that it may come in contact with every scion, and keep them entirely shaded till wanted. There is much less mystery in the matter of tree grafting than many suppose, and can be done by the big boy of almost any farmers' family after being once shown how.

CORRESPONDENCE.—We like to hear from men who candidly give us their views on matters pertaining to all the diversified interests of the farm, the garden and stock-growing. We commend the plain, practical hints in the letter of G. S. B. in the present number. Shall we hear from others on the same or similar subjects? The few words from E. G. W., on the availability of the Fur of Rabbits, are well spoken, and we hope she will divide her leisure moments between the knitting-needle and the pen, and let the products of the latter find their way to the columns of the RURAL. And here we wish to have it distinctly understood that, when we say—Farmers, write for your paper—we mean the wives, daughters and sons of farmers as well, for we consider them all farmers; as the little boy thought the honors belonged equally to himself and mother when his father was elected fourth corporal. We think he was right, about it. Ladies, will you write for us?

Farm Life — Is another subject admirably treated of in our present number, by Mrs. N. B. We would like to receive further notes from the same pen.

ONE of the most attractive of our door-yard ornaments is pampas grass, and when in full plume is exceedingly showy.

New Books.

HOBB'S ARCHITECTURE.—There is certainly no excuse for ugly features in architecture in this country, if the publication of books of designs, ground plans, etc., will prevent the erection of such unseemly structures. The work before us is one of this description, and a really valuable one—indeed, it is quite in advance of most which have preceded it. It contains nearly one hundred ground plans and designs, most of which are somewhat costly but many of which are well adapted to persons of moderate means.

Madame De Stael defines architecture as "frozen music;" another writer styles it "crystallized sentiment." The outlines of a beautiful building are like "a joy forever." The individual who has no eye or taste for the appreciation of beautiful forms in architecture, is incapable of one of the highest types of enjoyment to which the human mind can attain. Such a person is to be pitied. All have not the means to create such sources of enjoyment for themselves; but even a peasant may look upon a queen. So may the poorest in the community have real joy in admiring the creations of those whom fortune has blessed with means and the inclination to provide such enjoyments.

The intent of the work before us is to create a love for choice architecture, and to assist those who may be about to build, and have means to indulge more or less in taste, to so expend their money that it shall be a perpetual joy as well as comfort and necessity. In looking over its pages the reader can scarcely fail to find some plan which will serve to convey an idea of what he wants. J. B. Lippincott, Philadelphia, publisher. For sale by A. Roman & Co., of this city.

UNITED STATES CONSTITUTION.—We have before us "A Concordance of the Constitution of the United States of America, with a Compiled Index, and Questions for Educational Purposes, by Chas. W. Stearns. M. D." The Constitution of our own country is made quite too little a study in schools, and by the masses of the people. One of the chief reasons of this neglect is perhaps due to the difficulty of finding this important document printed in convenient form, with proper helps for its study. The little book before us seems to be well fitted to meet this objection, and it should hence meet with a large sale. The "questions" are so framed as to make the study both an easy and interesting one.

THE BRONZE TURKEY.—Careful culture has produced from the common turkey a breed so distinct, and so superior in size and beauty of form, as to merit the attention of every amateur fowl breeder. The benefits to be derived from the culture of improved breeds of animals, is in nothing more apparent than in the turkey. We refer the reader to the advertisement of Geo. B. Bayley in our columns, for the particulars in regard to the "Bronze turkey."

ANOTHER FARMERS' CLUB.—We learn from the Secretary of the organization of the Stanislaus Farmers' Club. Head quarters, Branch township Post Office, La Grange, Stanislaus County. Officers—Robert R. Warden, President; J. W. Roberts, Vice president; S. M. Gallup, Secretary; Jos. Dominici, Weather and Crop Reporter. We expect to be furnished by the Secretary with reports of proceedings at the earliest moment for place in the, RURAL.

COFFEE.—Having succeeded in producing the growth of nearly all the kingdoms of Europe and States of the Union, growing more wheat than the Northwest, taller corn than Indiana and Illinois, higher trees than Maine, and larger onions than Connecticut, rivaling with her crude young vineyards the vintages of the old Rhine, and the world-famous champage districts of France, giving pampered fashion a more delicate silk than Italy, the protean and fertile Golden State is now embarking in coffee culture; and her enterprising and energetic sons tell us that in a few years their "cafetals" will produce more and better coffee than all the old countries of the earth put together. And it is more than likely that the Californians will keep their word in the matter, for they have never yet broken a promise of this kind, and in imagination we may confidently picture California coffee prized above "Java and Mocha" in the great Continental Exhibition of 1876.—*Phil. In.*

THE price of wheat still maintains the late rise, $2 per cwt. The prospect of another bountiful harvest has not affected it.

The Melon Sugar Question.

An Eastern exchange says: Professor Colton, of the New York *World*, and a chemist of large experience, puts a quietus on the melon sugar question. Thirty years ago when sugar was scarce in the West we used to make syrup from watermelons, but did not pay even then. Mr. Colton says:

A long experience in practical manufacturing operations has taught us not to accept any theory as a fact, if there is a possibility of proving it by actual trial. Hence, having known the watermelon in a section where it grows in the greatest perfection, we have been somewhat chary in accepting the glowing statements of the amount and quality of sugar to be derived from it put forth by one of our cotemporaries in the California land of wonders and plenty.

In fact, we went further, and tried the matter by practical operations. We went to Washington Market and bought some good, sound Southern melons, fresh from Norfolk. These we treated in accordance with the directions of the PACIFIC RURAL PRESS, and we know, in addition, probably as much as they do about boiling the true sugar-cane juice. The result of our experience was: 110 pounds of watermelons yielded fifty-six pounds of pulp; this by pressure yielded four gallons and a gill of juice, weighing eight pounds nine ounces to the gallon.

In boiling we skimmed off a gill or more of refuse. From the process we got one quart of very pleasant tasting syrup, but it has not crystallized yet, and shows no signs of doing so. Now for figures. Suppose a man raises 3,000 melons on an acre of ground; averaging six to a hundred pounds there would be 50,000 pounds, equivalent in the result to 500 quarts of syrup, or 125 gallons. If this molasses could be sold at wholesale for seventy cents per gallon it would yield eighty-seven dollars per acre; but as a new product it could not be sold for that price. Yet estimate at eighty-seven dollars per acre, and from this deduct expenses of raising the melons and making the sugar, and there might be fifty dollars profit per acre.

We do not believe that in practical operations it would amount to one-half that sum, and we confess we do not see in this "melon sugar question" the solution of our present difficulty of high-priced sugar and continued sparse supply. We may be wrong, but we still believe that bringiug under cultivation the millions of acres of good sugar lands in Florida, the southern parts of Georgia, Alabama, Mississippi, Texas, and we may add California, will much more surely produce us large quantities of good sugar than Utopian experiments with melons and beets.

There is not an acre of those lands which cannot be made to produce 2,000 pounds of sugar and thirty gallons of syrup, while many will yield more. What sort of competition would a melon sugar maker have with such a product? These experiments may be well enough in Germ ny, where they cannot grow sugar-cane, and where lahor is cheap, but all we need is to improve the great resources with which we have been blessed.

We do not need to try expensive experiments with melons as an uncertainty when we have an unoccupied area of 25,000,000 acres, which will grow true sugar-cane with perfect ease, and there is no part of our country in which the sorgum or imphee will not grow, and from which a better molasses can be made than from the melon.

Another View of It.

EDITORS RURAL PRESS:—With your permission I desire to look into this "quietus" of Professor Colton of the New York *World*, that "chemist of large experience," and see of what it consists. At his own low estimate of $87 per acre yield, he would deduct $37 as the cost of raising the melons and making the syrup, leaving $50 profit per acre; when the fact is an acre of melons can be cultivated and the product made into sugar for $25.

The Professor does not believe that "in practical operations an acre will yield $50, or half that sum." Now practical operations have taught us not to accept any man's—"we do not believe" as a fact, if there is a possibility of proving it by actual trial, and having seen it tried, we know the Professor is at fault. We know that melons for sugar making, will yield a profit of over seventy-five dollars per acre. The Professor also waxes eloquent over "Utopian experiments with melons and beets," when if the quantity of cane sugar produced from an acre is but 2,000 pounds, an acre of melons or beets will exceed it.

Lands in California will produce easily 20 tons of beets to the acre, or 40,000 pounds. The beets are now yielding by factory process, eight per cent of sugar, or 3,200 lbs. per acre, which is 1,200 pounds more than the Professor proposes get from sugar cane, and yet would speak of success in beet sugar making as a "Utopian periment."

But taki the professor's low estimate of profit as a s, viz., fifty dollars per acre, we would like to have him point to an acre of wheat or corn in the Atlantic States that has paid a larger profit than fifty dollars.

The Professor obtained one quart of "very pleasant tasting syrup," and yet says sorghum or imphee will make a better molasses than melons. We cannot accept his theory, on this point when experiments prove to the contrary. His quart of syrup would not crystallize; and he claims to know as much about boiling the true sugar-cane juice as we do. Doubtless he does, and yet knows little or nothin gabout boiling melon juice, as his failure to make a syrup that would crystallize would certainly indicate.

The Professor may yet live to see beet and melon sugar manufacture made a profitable branch of American agriculture, as it has long been in European countries. W. W.

The Angora Goat.

The fleece of the Angora goat is the mohair of commerce, and is rapidly becoming one of the staple products of California. We see no reason to change our opinion on the subject of its intrinsic value, or the adaptability of our climate to the successful growing of the animal, from what we said in our October 5th number and previously, that California will be the best mohair producing country outside of Asia.

We have given this subject more than a mere passing notice, and from the weight and quality of fleece produced here from pure bred animals, we are convinced that the climate of California, and the whole vast breadth between the Coast and the Rocky Mountains is even better adapted and will grow a finer and larger goat than the country of which it is a native.

It is therefore one of those interests that should be fostered and encouraged, and we take a pleasure in starting our first number of the fifth volume of the RURAL with notices of the Merino sheep and the Angora goat, with illustrations of both. All that is wanted to set the mohair business on a sure basis is a home market, with a factory for its manufacture into all the fabrics it is capable of being wrought into. Next to this is an agent or factor, who



'ANGORA GOAT "SULTAN 2D."

will buy the mohair at our doors, as it is now bought up and secured in the countries of Asia for an English market.

And this feature of the business will come with the increase of the product, so that there is sufficient encouragement even now, for a largely extended production of the goat in all its grades, but the higher and purer the blood the better.

In our delicate little engraving which we present, can be recognized the pure blooded Angora goat as bred by Mr. N. Gilmore, of El Dorado, El Dorado Co., from pure stock of his own importation. "Sultan 2d," which is here represented, was bred by Mr. G. from his imported ewe, "Dido," by imported buck "Sultan 1st," they being part of a lot of ten ewes and five bucks, imported by Gray & Gilmore in the winter of 1867-8.

This herd has now increased to seventy head pure, and 1,100 grades after having supplied a a number of persons throughout the State with both pure bloods and graded ewes for starting in the business. "Sultan 1st" took the first premium at the State Fair of 1870; "Sultan 2d" took the first premium at the State Fair of 1871 and 1872. Five of Mr. G.'s kids also took the first premium at the Fair of 1872.

The fleece as shown in the cut is only about half grown, as the photograph from which the engraving is copied was taken at the time of the State Fair last September, he having been shorn the 1st of April last, when he clipped 7½ pounds. As he has grown considerably since, he will doubtless clip from 8½ to 9 pounds next Spring.

We have heard a grower of mohair assert that there never was that goat grown in Asia that would yield 7 pounds of hair, but we are assured that it has often been exceeded in this State, and we have no reason to doubt it. California will yet beat the world on goats and mohair.

The Sulphur Banks of Lake County.

These are situated near the shore of an eastern arm of Clear Lake, about eleven miles from the town of Clear Lake and one and a-half miles from the celebrated borax lake, from which they are separated by a ridge of mountains. The sulphur is found in a decomposed, volcanic rock, which is very much fissured; from these fissures issue the steam and hot gases which deposit the sulphur. The gas is most abundant toward evening, at which time it is impossible to stay in the "work holes" for any length of time, on account of the excessive heat aud suffocating nature of the gases, which appear to issue at irregular intervals, for while examining some of the fissures containing sulphur, we could work for some minutes without inconvenience, when suddenly there would be au escape of gas, which would nearly suffocate us, causing dizziness and a desire to get out into the open air as soon as possible. These gas-escapes seem to have a fatal effect on quail and hares, as we found several dead in the fissures. They probably select these warm places on cold nights, and are killed by the noxious gases.

Evidences of solfatara action are evident along a line extending from the shore of the lake S. E. for more than half a mile, though the sulphur banks worked do not extend to half that distance. There are a number of mineral springs on the line of the "banks"—among them soda, alum and borax springs.

One cavity, opened in working for sulphur, which we called "The Devil's Teakettle" resembles the "Witch's Cauldron" at the Geysers. The water is not so hot, but it keeps up a continual sputtering, and makes about as much noise as the "Cauldron." One of our party took one look at it, and concluded he had got enough of the sulphur banks, and was quite anxious, like the Teutonic gentleman to "dhrive on," thinking like him, that the Satanic regions were "*not var vrom dis blace.*"

On the horder of the Lake near the reducing works is a hot spring containing borax, used by the Indians of the neighhoring rancheria for washing, the borax and the heat doing away with the necessity of using soap; the hot water and gas (carbonic acid) percolate up through the sand over an area of perhaps 100 feet square, part of the outlet being beneath the Lake. Localities can be selected of any desirable temperature from that of the water of the Lake to a temperature too hot to hold the hand in. During a recent stay of several days in the neighborhood, this spring was a source of comfort to our party, heing an excellent washing place on cold mornings. The company owning the banks are taking steps to ascertain whether the springs can be utilized as a profitable source for ohtaining borax; a well has been sunk some 50 feet from the works and 150 yards from the Soda Springs; strong borax water was struck at a depth of 18 feet.

Mr. Wm. Murdock has charge of the property; he employs six men and reduces something over two tons of ore per day; two furnaces are in use, and one out of repair. The retorts which will reduce about 200 tons before being renewed cost $500 each at the works; wood costs $3 per cord. When looking on while the workmen were "drawing" the furnaces it required but a very little stretch of the imagination to think one's self in the Lower Regions. There are other deposits of sulphur in that county and vicinity, of which more anon.

L. G. YATES.

Centreville, Cal., Dec. 25th, 1872.

TIMBER.—President Grant indorses the recommendation of the Commissioner of Agriculture, that in disposing of public lands, that one-tenth be reserved in timber where it exists, and that where it does uot exist, inducements be offered for planting this proportion. It is probable that the bill before Congress will be amended in accordance with the President's suggestion. From experience on the frontier, and knowledge of the circumstances of settlers on the public lands, President Grant is able to estimate correctly the probable result of such Legislation. He knows exactly what the average settler can do, or will try to do.—*Northern Enterprise.*

FARMERS' CLUB.—On Saturday a meeting was held in the Town Hall. The audience was not large, but those present evinced a deep interest in the proceedings. Gen. John Bidwell occupied the chair. Dr. W. P. Tilden and John Whiteside were chosen Vice Presidents and R. H. Allen, Secretary. Gen. Bidwell and Dr. Tilden addressed the meeting. A committee of five was appointed to draft a constitution and by-laws, to name permanent officers and to do all other things necessary for organization.—*Northern Enterprise.*

A GROVE of trees in five years would by pruning and thinning supply a family with wood, and would not cost much more to plant than the price of a year's fuel.

Copper-Faced Type.

Every type founder professes to have a formula peculiar to himself for the mixture of the alloy known as "type metal." They all agree that it is composed of metals mixed in about the following proportions, viz:—Lead, five-tenths; Antimony, three-tenths, and tin, two-tenths; to which is generally added from one to three pounds of copper to the hundred of the alloy. This mixture makes probably the most durable metal used for the purpose. It is not so brittle but that it can be bent slightly, as it is well known that a too brittle metal granulates quickly from the friction of printing and soon wears out.

Tiu is the metal that gives durability, but its cost is nearly fifty cents per pound with lead at six cents and antimony at twenty, or thereabouts; hence the economical type founder strives to get along with as little of the expensive metal as possible.

Type made fifty years ago was poor in durable qualities compared to that made to-day. It was not till cylinder presses came into use, and the demands of the daily Press called forth those type-dcstroying machines, the "Hoe Type-revolving Printing Presses," that the ingenuity of type foundries was taxed in vain to make a metal to meet the new demands.

About twenty-five years ago the ingenuity of inventors brought out several substitutes for the old "type metal alloy." Type made wholly of copper hy pressure in steel dies was tried; but the trouble with it was that the thinner letters like the l's, i's and points would bend and could not be made to keep their shape. Brass was also used, but it was destructive of the steel dies. India rubber, too, was used. But with all its imperfections they neither of them could displace the common type metal alloy. In 1850, Dr. Newton ohtained a patent in the United States and Europe for increasing the durahility of type, by depositing a thin coating of copper hy the aid of galvanic electricity upon the face of ordinary type. A company was formed at that time in New York, and continues to-dav in successful and profitable operation. Nearly every daily paper in the large cities of the Union use the copper-faced type. Its durability is about three times that of ordinary type, and the expense is twenty per cent. added to the type-founderss' prices.

That is to say, type for which the type founders charge fifty cents per pound can be copperfaced for ten cents additional. The process is one requiring more than ordinary care in the electrotyper. The type founders' page of type is locked up in a small brass chase having a flange upon each of two ends; it is then turned upside down, the chase resting upon a metal frame suspended immediately above a solution of sulphate of copper. The face of the type should just touch the solution, so that the copper should not be deposited more than halfway to the shoulder of the type. The object of the manipulator is to deposit as great a thickness of copper as he can without allowing it to become so thick as to make the type become one mass by the copper uniting between each separate type. A nice adustment of the battery power is necessary to attain this end. The temperature of the room in which the work is carried on is also an important element. The difference between the freezing point of water and 150 degrees Fahrenheit being as one to ten at the latter point in the amount of deposited metal. In New York the temperature is carefully adjusted by artificial means. The equable climate of San Francisco very much facilitates the operation here.

Of course the deposit of copper upon the face of the type gives the lines a heavier appearance when printed. In newspaper work this is no objection; nor do some printers think it detracts from appearance of book work, but its use is pretty much confined to the daily press.

Other metals besides copper have been suggested for making type more durable, but none have answered the purpose so well. Ahout twenty years ago some parties in England thought to evade the "Newton Patent" by the substitution of nickel. It was advertised as an improvement, but never come into use. Nickel is a difficult metel to deposit with the galvanic battery; it is very hrittle when deposited and hence is not to durable as copper. The color, too, beeing to much like type metal makes it difficult for the eye to detect whether the deposit is going on correctly or otherwise. Its cost is also an ohjective, being about four times that of copper.

PLANT trees in the garden, along the sidewalks; a few trees in the bleak pastures will improve the appearance of ranches, as well as serving in time for a grateful shade for stock in the long hot days of the dry season.

C. P. ADAMSON, who has a large farm on the San Joaquin, reports prospects in that section quite flattering. The rain-fall has been abundant, and the prospects for good crops never better.

THE hills are putting on their emerald robe.



The Year That is to Come.

BY MRS. F. D. GAGE.

What are we going to do, sweet friends,
In the year that is to come,
To baffle that fearful fiend of death,
Whose messenger is rum?
Shall we fold our hands and bid him pass,
As he has passed heretofore,
Leaving his deadly-poisoned draught
At every unbarred door?

What are we going to do, sweet friends,
Still wait for crime and pain,
Then bind the bruises, and heal the wound,
And soothe the woe again?
Let the fiend still torture the weary wife,
Still poison the coming child,
Still break the suffering mother's heart,
Still drive the sister wild!

Still bring to the grave the gray-haired sire,
Still martyr the brave young soul,
Till the waters of death, like a burning stream,
O'er the whole great nation roll;
And poverty take the place of wealth,
And sin and crime and shame
Drag down to the very depths of hell
The highest and proudest name.

Is this our *mission* on earth, sweet friends,
In the years that are to come?
If not, let us rouse and do our work
Against this spirit of rum.
There is not a soul so poor and weak,
In all this goodly land,
But against this evil a word may speak,
And lift a warning hand.

And lift a warning hand, sweet friends,
With a cry for home and hearth,
Adding voice to voice, till the sound shall sweep,
Like rum's death-knell, o'er the earth.
And the weak and wavering shall hear,
And the faint grow brave and strong,
And the true and good and great and wise
Join hands to right this wrong.

After the Accident: Mouth of the Shaft.

BY BRET HARTE.

What I want is my husband, sir,—
And if you're a man, sir,
You'll give me an answer,—
Where is my Joe?

Penrhyn, sir, Joe,—
Caernarvanshire.
Six months ago
Since we came here—
Eh?—Ah, you know!

Well, I *am* quiet
And still.
But I must stand here,
And will!
Please—I'll be strong—
If you'll just let me wait
Inside o' that gate
Till the news comes along.

"Negligence"—
That was the cause;
Butchery!—
Are there no laws—
Laws to protect such as we?

Well, then!—
I won't raise my voice.
There men!
I won't make no noise.
Only you just let me be.

Four, only four—did he say—
Saved? and the other ones?—Eh?
Why do they call?
Why are they all
Looking and coming this way!

What's that?—a message?
I'll take it.
I know his wife, sir.
I'll break it.
"Foreman!"
Ay, Ay!
"Out by and by"—
"Just saved his life."
"Say to his wife
Soon he'll be free,"
Will I?—God bless you.
It's *me?*

—[Scribner's for Jan.

For the Last Time.

There is a touch of pathos about doing even the simplest thing "for the last time." It is not alone kissing the lips of the dead that gives yon this strange pain. You feel it when you look last upon some scene which you have loved—when yon stand in some quiet city street, where you know that you will never stand again. The actor playing his part for the last time, the singer whose voice is cracked hopelessly, and who, after this once, will never stand again before the sea of upturned faces, dispnting the plaudits with fresher voices and fairer forms, the minister who has preached his last sermon—these all know the hidden bitterness of the two words, "never again."

How they come to us on our birthdays, as we grow older. Never again young, always nearer and nearer to the very last—the end which is universal, the "last thing" which shall follow all last things, and turn them, let us hope, from pains to joys. We put away our boyish toys with an odd heartache. We were too old to walk any longer on our stilts—too tall to play marbles on the sidewalk; yet there was a pang when we thought we had played with our merry friends for the last time, and life's serious, grown up work was waiting for us. Now, we do not want the lost toys back. Life has other and larger playthings for us. May it not be that these, too, shall seem in the light of some far-off day, as the boyish games seem to our manhood, and we shall learn that death is but the opening of a gate into the new land of promise?

Listen.

Do you wish to do something towards making your home happy? Do you desire that your brothers and sisters should be glad to have you with them, and that you should always be a welcome companion to your parents and your children? Do you want to have your society coveted everywhere, and to feel the pleasure? Would you like to help people to think well, and to have them save their best thoughts for you? Would it please you to get all the good you can out of the people you know?

If so, learn to listen.

But first learn what listening is—for it is not merely the exercise of the sense of hearing. The stupidest of us all can keep ears open and mouth shut. To listen properly means to make other people talk properly. That is a social definition, if it is not a Websterian one. The good listener is a cause of talking in others, and by a proper exercise of this valuable and too scarce gift, makes the diffident say what they think, and the verbose think what they say. For the greatest talkers are careful when they find they have a good listener. They know that they may not often be so fortunate, and they talk their best. The adept in listening may sometimes hear more prosing than he likes, but if he be skillful this will not often happen. When it is impossible to get anything interesting or useful ont of a man, he need be listened to no longer. Every one of sense will agree to that. But it is astonishing how many good things some very unpromising persons will say if they be properly and concientiously listened to.

To be sure it is very hard for some persons to listen. They have a gift of talking and they like to exercise it. But these are the very persons who should do a great deal of listening. They know what a luxury it is to talk, and they should give their families and friends a chance to learn the art. Besides, like farmers, they will often find much advantage in a rotation of crops. A season of listening is often a most excellent preparative for a season of talk.

It is often supposed that if a man has a good thing to say, he will say it, but this is not necessarily the case. Very often he never says it, because no one will give him a chance. He don't want to waste his speech on fools, and the smart folks want him to content himself with hearing what they have to say. This happens—not in connection with very good things perhaps, but with things that might lead to very good things—every day and every hour, in thousands of families, all over the land—to say nothing of society.

There are those who so seldom have a chance to speak to interested ears, that they gradually draw themselves into themselves, where, not generally finding much, they intellectually pine away.

To be sure, we should not fail to become good talkers if we can; but, do what we may, we can only make one talker of ourselves, whereas, by proper listening, we may make a dozen talkers of other people. —*Scribner*.

What Alexis Thinks of us.—It may be gratifying to know what Alexis, the prince, thinks of us, for at last we have it; but why did he wait until he got to Singapore before he said it, keeping us in suspense meanwhile? He says we are a country of splendid men and handsome women, and that he wants to visit us again. He declares that we not only have the most beautiful ladies in the world, but more in proportion to population than any other country; the only thing he complains of here is newspaper interviewers, who evidently tried him sorely or he would have forgotten it before reaching Singapore.

The Empress Elizabeth of Austria has written to the woman's rights club Vienna: "Ladies, take my advice, and keep away from politics. There is nothing but misery in it."

Velvet is more worn by our fashionable young ladies on the streets this winter, than it has ever been before.

An Awful Lonesome Man in California.

In the shanty, which in California's early days, did duty as office for the banking, postal and express business of Wells, Fargo, & Co., in Marysville, there sat, one Saturday evening, a misanthropic and dejected-looking individual, whose long and unkempt hair and beard, cowhide boots and rough dress bespoke the miner. For over an hour he sat there the picture of despair, with not a word or look for any one present. Miners came, left their "dust," took their coin in return, and exchanged greetings with all present save the one morose man whose apathy nothing, it seemed, could disturb. Finally there entered a young miner with a beaming face, who after completing his business at at the counter, turned to the agent in charge and remarked that on the previous Saturday he had some dealings with the bank, and thought that some mistake had been made on his account.

"Guess not," said the agent. "Our cash was all right, and I reckon we keep our books pretty straight."

But upon the request of the miner that the account should be examined, the account was looked at, and it was found that, through a clerical error, the miner had been paid just $50 too much.

"That's just what I make it," said the latter, "and here's your money." With this he threw down the gold, and received the thanks of the agent.

While this conversation was in progress, the misanthropic miner had preserved his looks of utter indifference; but when he saw the money actually returned, his face brightened up, he rose slowly, walked toward the honest miner with a slow and honest step and said:

"Young man, don't you feel lonesome in this country?"—*Patterson Guardian.*

Why American Women are Delicate.—Another reason of the delicacy of our women is the far greater style affected by all classes in dress, and the wearing of corsets during early youth. Naturally, if one has attained a full and fine physical development, tight corsets, heavy skirts close-fitting boots and weighty chignons cannot injure to the same extent as when these appliances of fashion are put upon the soft and yielding muscles of a young and growing girl. The noble ladies of England exercise many hours daily in the open air. They do not disdain to don heavy-calf-skin shoes and colored petticoats, in which to perform this duty. This, of course, would not alone make them as healthy as they are, were not their constitutions strengthened by a proper physical education before they are eighteen years of age, but it suffices to retain them in a good degree of health. Our fair Americans early in the day attire themselves in charming morning costumes, with white skirts; and then they are averse to soiling these by exercise, and the least dampness deters them from a promenade. American ladies think far more of dress and fashion, and spend more money and time on their toilets, than any women in Europe, not even excepting the French, from whom all our fashions come.—*Galaxy.*

Folding Linen.—The women of the old province of Anjou are celebrated for their art in folding linen. The renown is an odd one, but it has, nevertheless, bestowed no mean celebrity on the ladies of Angers. The art does not flourish now as it used, and is, indeed, nearly confined to the grand old housekeepers of the grand old chateaux of the place. The linen presses of a magnificent Gothic hospital still show, too, some chefs d'œuvre of the kind. The good sisters throw open the doors of their immense cupboards with a natural feeling of pride, and reveal to the astonishment and admiration of the visitors the wonders of their dexterity. In a vast sheet, folded into a trough, twenty-four sheep, formed of chemises, are drinking, guarded by a night dress in the shape of a shepherd, and so on. Linen castles, windmills, towers, and abbesses are frequent *tours de force* of these dexterous linen folders.

There is no greater everyday virtue than cheerfulness. This quality in man among men is like sunshine to the day, or gentle, renewing moisture to parched herbs. The light of a cheerful face diffuses itself, and communicates the happy spirit that inspires it. The sourest temper must be sweetened in the atmosphere of continuous good-humor.

Sorrow is General.—One can never be the judge of another's grief. That which is a sorrow to one, to another is joy. Let us not dispute with any one concerning the reality of his sufferings; it is with sorrows as with countries—each man has his own.

Young Folks' Column.

The Rabbit on the Wall.

The cottage work is over,
The evening meal is done;
Hark! through the starlight stillness
You hear the river run.
The little children whisper,
Then speak out one and all;
"Come, father make for Johnny
A rabbit on the wall."

He smilingly assenting,
They gather round his chair;
"Now, grandma, you hold Johnny,
Don't let the candle flare."
So speaking from his fingers,
He throws a shadow tall,
That seems the moment after,
A rabbit on the wall.

The children shout with laughter,
The uproar louder grows;
Then grandma chuckles faintly,
And Johnny chirps and crows,
There ne'er was gilded painting
Hung up in lordly hall,
Gave half the simple pleasure
This rabbit on the wall.

"'Twas My Mother's."

A company of poor children, who had been gathered out of the alleys and garrets of the city, were preparing for their departure to new and distant homes in the West. Just before the time for the starting of the cars, one of the boys was noticed aside from the others, and apparently very busy with a cast-off garment.

The superintendent stepped up to him and found that he was cutting a small piece out of the patched lining. It proved to be his old jacket, which having been replaced by a new one, had been thrown away. There was no time to be lost. "Come, John, come!" said the superintendent, "what are you going to do with that old piece of calico?"

"Please, sir," said John, "I am cutting it to take with me. My dear dead mother put the lining into this old jacket for me. This was a piece of her dress, *and it is all I shall have to remember her by.*" And as the poor boy thought of that dear mother's love, and of the sad death-bed scene in the old garret where she died, he covered his face with his hands and sobbed as if his heart would break.

But the train was about leaving, and John thrust the little piece of calico into his bosom, "to remember his mother by," hurried into a car, and was soon far away from the place where he had seen so much sorrow.

Many an eye has moistened as the story of this orphan boy had been told, and many a heart prayed that the God of the fatherless and motherless would be his friend. He loved his mother, and we cannot but believe that he obeyed her and was a faithful child.

The Ten Words.—The Jews call the Ten Commandments by the name of "The Decalogue," which signifies the "Ten Words." As these precepts cannot be learned in too many ways, we here give *the substance* of them in ten lines, poetically arranged, which will help the memory to recollect them in *full*.

1. I am the Lord thy God—serve only me;
2. Before no image bow thy impions knee;
3. Use not My name in trifles, nor in jest;
4. Dare not profane My sacred day of rest;
5. Ever to parents due obedience pay;
6. Thy fellow-creature, man, thou thalt not slay;
7. In no licentious conduct bear a part;
8. From stealing keep with care thy hand and heart;
9. All false reports against thy neighbor hate;
10. And ne'er indulge a wish for his estate.

An Item for Boys.—It is not necessary that a boy who learns a trade should follow it all his life. Governor Palmer, of Illinois, was a country blacksmith once. Thomas Hoyne, a rich and eminent lawyer, also of Illinois, was once a bookbinder. Erastus Corning, of New York, too lame to do hard work, commenced as a shop-boy in Albany. When he applied for employment he was asked, "Why, my little boy, what can you do?" "Can do what I am bid," was the answer, which secured him the place. Senator Wilson, of Massachsetts, was a shoemaker. Thurlow Weed was a canal-boat driver. Ex-Governor Stone, of Iowa, was a cabinet-maker, which trade the late Hon. Stephen A. Douglass also worked at in his youth. Large numbers of men of prominence now living have risen from humble life, by dint of industry, without which talent is as gold coin on a barren island. Work alone makes men bright, and it does not alone depend on the kind of work you have to do whether you rise or not; it depends on how you do it.

It is a curious fact that if the same letters of the same size precisely are painted on two boards, the one white on a black ground, and the other black on a white ground, the white letters will appear larger, and be read at a greater distance, than the black. This is what is called the irradiation of light. It depends on this that the impression made on the bottom of the eye by bright objects extends a little wider than the actual portion of the organ struck by the light, and, invading the space occupied by the lighter objects, makes the brighter appear larger than they really are.

"When a young man," said Ed. Delavan, "I was going with some gay young men on a drinking lark, when I suddenly turned about and left them. On the spot on which I made that hasty resolution to reform stands a part of my property—the Delavan House."

DOMESTIC ECONOMY

Table Customs.

EDITOR OHIO FARMER:—It is a sad fact that there are many families in the country in which exists a feeling of inferiority when thrown into the company of city or refined people. This feeling is not lessened when they are playing the part of hosts, and the awkwardness felt is in exact keeping with the home customs. Well-to-do families are not unfrequently found in the rural districts wherein there is a great want of system, order and politeness, and especially is this found at the table.

A lady from the city, or any well-regulated household, does not feel comfortable when seated at the table of a friend or simple acquaintance, as the case may be, and requested to "help herself or be at home," and she had a thousand times rather "be at home" than to reach over the table for this and that in place of being helped. It does not increase her appetite at all to have the madam cut bread from the loaf as it is wanted with the knife she is eating with, nor to see each member of the family cut from the butter with their individual knives, first drawing them through their mouths to make them clean (?) or to have the pie cut with an eating-knife and passed around, each taking a piece upon a greasy plate, and perhaps one-half filled with meat, potato, cabbage, etc.

I might enumerate any number of such indelicacies, far too-often practiced, but will not take up space to do so, but wish to simply add a suggestion as to the remedy. A family, to appear well to others, must be so systematized in its regulations that there is harmony at all times in action, if not in words. Cultivation is not necessarily dependent upon capital, for those the most humble in circumstances can have admirable harmony in their home affairs. Seventy-five cents will supply a table with a very neat silver-plated butter-knife, and every pantry is supplied with sufficient cutlery to afford an extra knife for the bread, meat, pie, and with sufficient table-ware to afford each a clean plate for pie, a cup for boiled egg, etc. The bread can be as well cut in the pantry and brought to the table properly sliced, as to be messed out as required; the pie can as well be served on small, clean plates from the pantry as in the manner above mentioned.

Now, some may say that this method is more trouble than profit, and not necessary to practice when only the family is together. I do not propose to argue the question at all, but will add, if not practiced when the family only is together, it never will be. The members of one's family should be the dearest objects of earth; the sons and daughters should be taught those rules in social life which will enable them to stand above ridicule and command respect, and every one is at liberty to adopt them, for they are free. I said, however, that I would not argue the question, and I won't.—*Ohio Farmer.*

INDIAN FRITTERS.—Take three tablespoonfuls of flour, boiling-water, the yolks of four eggs, the whites of two, hot lard or clarified dripping, and jam. Put the water into a basin, and pour over it sufficient boiling-water to make it into a stiff paste, taking care to stir and beat it well, to prevent it getting lumpy. Leave it a little time to cool, and then break into it (without beating them at first) the yolks of four eggs and the whites of two, and stir and beat all well together. Have ready some boiling lard or butter; drop a dessertspoonful of batter in at a time, and fry the fritters of a light brown. They should rise so much as to be almost like balls. Serve on a dish, with a spoonful of preserves or marmalade dropped in between each fritter. This is an excellent dish for a hasty addition to dinner, if a guest unexpectedly arrives, it being so quickly made, and it is always a great favorite. It takes from five to eight minutes to fry the fritters.—*Mrs. Beeton's Everyday Cookery.*

APPLE TAPIOCA PUDDING.—One coffee-cup of tapioca, covered with three pints of cold water, and soaked over night. In the morning set it on the side of the range, or stove, stirring it often, till it becomes transparent. If too thick, add more water, till it is as thin as good, clear starch. Stir in a small teaspoon of salt. Pare and core, without breaking, as many good apples as will set close on the bottom of a medium-sized pudding-dish. Fill the holes full of sugar, and a very little nutmeg and cinnamon; then pour over the tapioca, and bake slowly till the apples are soft and well done. To be eaten with hard sauce, which is made as follows: One cup sugar, two-thirds of a cup of butter, beaten together until perfectly smooth and white.—*Western Rural.*

APPLE SOUFFLE.—Always stew the apples nicely, then adding a little grated lemon peel and juice, and omitting butter; line the sides and bottom of a baking-dish with them. Make a boiled custard with one pint of milk and two eggs, flavoring with lemon and sweetening it to taste. Let it cool, and then pour into the center of the dish. Beat the whites of two eggs to a stiff froth (they can be left out of the custard), spread them over the top; sprinkle white sugar over them, and brown in the oven. The stewed apples should be about half an inch thick on the bottom and sides of the pudding-dish.

CARRIGAN CUSTARD.—Procure an ounce of carrigan moss, and divide it into four parts; one part is sufficient for one mess. Put the moss into water, and let it remain until it swells; then drain it, and put it into two pints and a half of milk, and place it over the fire; let it boil twenty minutes, stirring it continually; then strain it, sweeten it with loaf-sugar; put into cups, and grate nutmeg over the top of them.

YULE CAKE.—Take one pound of fresh butter, one pound of sugar, one and a half pounds of flour, two pounds of currants, a glass of brandy, one pound of sweetmeats, two ounces of sweet almonds, ten eggs, one quarter of an ounce cinnamon. Melt the butter to a cream, put in the sugar. Stir till quite light, adding a little allspice and pounded cinnamon. In a quarter of an hour take the yolks of the eggs, and work them in two or three at a time, and the whites must by this time be beaten into a strong srow, quite ready to work in. As the paste must not stand to chill the butter, or it will be heavy, work in the whites gradually, then add the orange peel, lemon and citron; cut in fine strips, and the currants, which must be mixed in well with the almonds; then add the sifted flour, and a glass of brandy. Bake this cake in a tin hoop in a hot oven, for three hours, and put twelve sheets of paper under it to keep it from burning.

HOW TO COOK HAM.—There is as much difference in the cooking of ham to make it good as in the preparation of any other meat for the table. My method is this: For a good size family take a medium sized ham, put it into luke warm water in a kettle and place it on the stove, covered as tightly as possible; allow no more steam to escape than is necessary. A ham weighing sixteen pounds I allow to boil from four to five hours, then to stand in the water until cold. If taken from the stove at night, I do not take from the kettle till morning. I use the same plan when boiling beef or tongue, and believe therein lies the secret of having nice tender and well flavored meat.—*Ohio Farmer.*

GINGER BREAD.—I take a cup of molasses and stir flour into it until it is very stiff indeed—till I can make it take no more, then put some salt and a teaspoonful of saleratus in a cup and dissolve in a little water; then fill the cup full of boiling water and pour the whole into the dish containing the molasses and flour and stir the whole until well mixed. Add three great spoonfuls of melted lard or butter, stir it well and the cake is ready to bake. It must be baked quickly to be good.—*Lizzie.*

CRULLERS.—Three eggs, one cup sugar, five tablespoons melted butter. Use flour enough for stiff paste. Roll out and cut into any shape you may fancy.

CHEAPER SEWING MACHINES.—There appears to be a prospect that the price of sewing machines will be reduced. The patent for the Wheeler & Wilson machine will shortly expire. During the last session of Congress there were several unsuccessful efforts made to have it extended, and the application for an extension is still before the Senate Committee on Patents, with little prospect of its being reported this Winter. In case the application for an extension be defeated, it is thought the price of sewing machines will be brought down to $20 or $25. In the testimony filed before the Committee, given by skilled machinists, it is stated that the average cost of manufacturing sewing machines is $7 to $12. This patent is owned by what is known as the sewing machine combination, but the application for extension of the patent is in the name of A. B. Wilson. Many of the smaller machine companies oppose the extension. There are, before the Committee, petitions signed by over twenty thousand persons, many of whom have from one to twenty machines in operation in manufacturing establishments, asking that the extension be refused. The old companies have made millions upon millions upon their patents, and it is now time that their monopolies should be done away with, and the public benefitted by throwing the business of making and selling machines open to competition. The question seems hardly to admit of argument.—*Call.*

THE BESSEMER SALOON STEAMBOAT.—The project of the Saloon for the avoidance of seasickness seems to have taken tangible shape since the demonstration of the fact that the anticipated results will follow from such a mode of construction. Mr. Bessemer has associated himself with Mr. E. J. Reed, a gentleman of means and scientific attainments, to carry out the project, and a company has been formed with a capital of $1,250,000. Two vessels are to be immediately constructed for the Channel navigation. In addition to the advantage of the comparatively motionless Bessemer saloon and promenade deck, they will embody every improvement for space, comfort and speed that the skill of the designers can introduce.

THE SIGNAL SERVICE AND THE FISHERIES.—General Myer, the head of the United States Signal Service, has intimated his desire to promote the interests of fishermen through the operations of his department, as we learn from the Gloucester *Telegraph*, by establishing stations which shall not only notify the fishermen of changes in the weather, but also of the movements of fish, such as mackerel, herring, etc., along shore. The idea seems to be an excellent one.

Practical Uses of Geology.

The object of geological investigations and the general result of such inquiries being understood, it remains to consider the various modes of its application to practical purposes in useful detail, so that we may clearly prove that this science, which not long ago amused the public mind, and alarmed the timid with vague speculations and unfounded theories concerning the origin of things, now involves much that is necessary to be known, and has become an essential part of sound education; being, in fact, as important to the engineer and miner as astronomy is to the navigator. Since, however, it is the case that geology embraces a wide range of subjects, some of which bear more directly on the natural history of living and extinct races of animals and vegetables, while others are more strictly mechanical,—and that the latter are those chiefly concerned in the practical application with which we have to deal,—a very brief summary of such facts may be useful in entering on a new department of the subject. It will appear, on a little consideration, that the facts in question are of very distinct kinds, and may be considered separately; for we may regard the earth's crust either as the place upon which, or within, various operations are to be performed, or we may regard it as the great depository of all useful and valuable mineral substances, of whatever nature. Thus the agriculturist will regard the earth and the rocks present in his district as providing the soil, and supporting the plant mechanically; but he may also look for valuable minerals to mix with his soil on the surface, and may be obliged to consider what hidden but determinable facts will interfere with or assist his draining.

So again, the architect and engineer will require to dig in some places for stone and clay, in order that they may erect some structure in another place, where it is important that the foundation should be sound, and where no unusual difficulties need be anticipated. And so also the miner, while he is merely anxious to extract mineral wealth, must also regard and carefully estimate the difficulties he will have to contend with, while piercing to great depths beneath the surface, or burrowing to a distance within a hill. Now in order to understand the application of geology thus presented, it is necessary to be familiar with certain principles and facts, relating chiefly to those masses of matter already described as rocks, and concerning which it is important that the practical geologist should know both their mechanical and chemical condition, and their mechanical position. Such facts duly appreciated, and the basis of geological science once laid, it is useful to notice how completely, not only the earth structure but the habits and even civilization of its inhabitants, corresponds to this geological condition. Thus in our own country it has often been observed that the inhabitants of the mountain districts differ much from those of the plains, while those of the lowlands vary according to the nature of the underlying rock, because that influences the cultivation. The geological structure and configuration of any country are the main foundations of its physical aspect; and the various operations of elevation, depression, and denudation, which it is the object of the geologist to study, are in affect the cause of all modification of the aspect and structure as originally impressed. Thus the mere fact of a line of hills in a country or a district, sloping gradually on one side and much steeper on the opposite side—or elsewhere, of hills rising regularly and with monotony—will of itself mark the physical cause of such appearance, whether it is due to a distinct elevation, or to the outcrop of some hard bed. Wherever distinct and definite physical features occur, some geological cause may always be traced; and on the other hand, every important geological event that has last happened in a district, is indicated by physical features.

A knowledge of this is often extremely useful to the traveler; for in this way he may determine the probable direction, or even the possible existence of rivers and mountain ridges, and also the places where natural mineral riches are likely to be found. The nature and use of geological maps and sections—of which many and excellent examples are produced by the geological survey, may also be recognized in their application to important practical questions constantly arising in agriculture, agricultural engineering, architecture, civil and military engineering, and mining. Each of these pursuits and professions having reference to material obtained from the earth, and also to the earth as the basis of operations, involves many facts of direct geological interest. It is only by a knowledge of geology, and of the mode of applying such knowledge, that much progress can be made in the higher and more suggestive departments of these sciences, and will not be considered that there has been any unnecessary consideration of details in what has been said concerning the nature of rock masses, their chemical composition, the mode in which they were aggregated, and the changes they have since undergone. These facts being the foundation of practical geology, are in every way worthy of careful consideration, and cannot be to well understood or too often thought of by practical men. Whilst the application of geology to agriculture, engineering, and mining, are direct and immediate, and require each in its turn the careful attention of the student, there is one other less manifest but equally connected with the subject, that may be regarded as preliminary. It is not alone to mechanical arts and appliances that the study of nature is essential. It is equally so to those who would represent the varied physiognomy of nature in its rocks and mountains, hills, valleys, and plains, and who for this purpose learn the arts of drawing and painting, and apply them to represent the forms and colors that please the eye and instruct the intellect. The artist as well as the engineer, and the critic in art as well as the artist, require knowledge and science, that the one may produce, and the other recognize and appreciate, a true transcript of nature.—*Anstead.*

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Farmers in Council.

San Jose Farmers' Club.

The Club met Saturday, the 28th, Jesse Hobson presiding.

At the request of the Club, the Secretary read from the Pacific Rural Press, a criticism.

Mr. Spencer, from the Market Committee, announced that the stalls in the City Market were fitted up and ready for the reception of produce. Thus far nothing had been received. Mr. Spencer notified the Club that unless the articles were brought to the Market for sale, the speculation would not be very profitable.

When the announcement of selection of question for next meeting was made, Mr. Berglen moved that the question of irrigation be postponed for one week.

Mr. Hobson asked the names of three of the best varieties of winter apples.

Mr. Berglen thought the Newtown pippin and white winter pearmain.

Mr. Kennedy said that one characteristic of the pearmain is its prolificness, it bears good crops every year.

Mr. Berglen said the pearmain dried out, and the Newtown pippin if it rotted, did so in spots, which did not affect the balance of the apple.

Mr. Cadwell suggested Smith's cider as an excellent apple to keep.

Mr. Hatch asked if the Tea Wheat had ever been cultivated in this valley. He said it had been introduced into New England a few years ago. It is a spring wheat, beardless, and superior for manufacturing flour.

Mr. Berglen said he thought it was the same as was called beardless wheat.

None of the Club seemed to recognize this grain by the name given, and Mr. Hatch promised to procure specimens for examination and test.

Mr. Hatch also asked the best variety of sweet corn raised for table use in this valley. The best variety he had ever seen is the mammoth sugar corn, and would liko to kuow if that variety had ever been cultivated here.

Mr. Cadwell said the best corn he had ever raised was the Evergreen corn. He had never seen the variety referred to by Mr. Hatch.

Mr. Hobson said he thought that the largest corn was the best for this climate.

Mr. Cadwell said that on dry soils a small early kind is best; a kind that will matnre before the dry season is too far advanced. He had sent East and procured some seed of what is known there as "Squaw Corn," and had got a large yield and a good quality.

Mr. Hatch said he had procured the "Mammoth Sugar" from Prof. Hastings. It was not very late. He had some seed with him that he would give to the members of the Club for trial.

Mr. Berglen said the worms troubled the green corn, nearly every ear being more or less affected.

Mr. Cadwell said that depended partly on the season and partly on the variety.

Mr. Dubois spoke in regard to the criticism of the Pacific Rural Press on the proceedings of the last meeting of the Club. He thought if the Club got out of bounds it ought to be called to order. He also thought the Club should thoroughly investigate the subject of grasses until they find a perpetual grass, or a substtute which will furnish green feed for stock all the year round. He was not certain there is such grasses, but he thinks there may be. He had noticed a grass in the Cory vineyard which had been green during all of the late dry seasons, but did not know if it was good for feed. He wanted information in regard to thia. He also wanted to impress on the minds of farmers the benefit to be derived from rolling the land after the crop is in; he wanted every one to try it.

Mr. Cadwell said he had prepared some thoughta on the advantages of our State over other States, but as there waa such a small attendance he would defer his remarks uutil next Saturday.

Mr. Settle said he was a member of the Committee on Experiments, and asked Mr. Duboia if he would undertake an experiment with mesquit grass. Mr. Dubois agreed to do so.

Mr. Kennedy moved that the seeds received by the Club from the Agricultural Department be turned over to the Committee on Experimeuta. Carried.

Mr. Settle said, in regard to grasses, he thought Californians were better capable of judging what is best for this country than men who have had no experience with our dry seasons.

Mr. Kennedy said there could be no donbt about alfalfa growing iu thia couutry, that it would keep green and make good hay.

Mr. Cottle said alfalfa hay in the market is worth $22 per ton when timothy or red top is worth $25, but the number of crops which can be harvested makes alfalfa the most profitable.

Mr. Dubois said his objection to the alfalfa was the fact that the gophers were extremely fond of the roots.

Mr. Berglen said his neighbor had planted a field of alfalfa, and his stock would eat all round it but never touch it. He thought alfalfa a humbug.

Mr. Cottle says wo have good enough hay, but what we want is green pasture, this is all the alfalfa is good for.

Mr. Dubois said he disagreed with Mr, Cottle on the hay question. He did not believe our wheat or barley hay is near as good aa timothy or red top. He thought we should have something better.

Mr. Cadwell said that in Illinois the farmers preferred wild hay to timothy, because the dust from the latter gives horses heaves. In regard to our wheat hay, he had seen cattle turned out on the stubble and get fat, eating it clear down to the ground. Cattle will not eat our wheat and barley hay well when cut too late, neither will they timothy.

Mr. Keunedy said that in Nevada couuty timothy and wheat hay come into competition, and one brings as good price as the other.

Mr. Berglen said that to fatten stock he preferred the dry hay or stubble; milch cows need green feed.

Mr. Dubois said that heaves in horses were caused by the climate and not by feed.

Mr. Hobsou spoke of irrigation, giving the possibilities of flooding the valley and adding to the productions of the soil.

Mr. Berglen thonght that when there was water enough in the creeks to irrigate the land, there was water enough in the land, and it did not need irrigation. He believed in letting the land rest every few years.

Mr. Hatch speaking of grasses, suggested the orchard grass, which has a large tap-root, and which he thought might keep green throughout the year.

Mr. Cottle said that he had read a statement in a responsible journal that proper irrigation would preserve the productiveness of land without auy use of manure.—*Daily Mercury.*

Sonoma County Farmers' Club.

Club met Saturday, December 21st, 1872.

The Committee on Library asked and obtained further time to report.

Mr. Whittaker supposed, that as the Club would soon meet in its new hall, that an entertainment should be given, of some character, by which funds could be obtained to furnish the hall.

Mr. Whittaker said it would cost $50 to pay for the benches alone.

After further discussion the matter was postponed until next meeting.

Mr. Rector suggested that the President now appoint six trustees to report on the feasibility of iucorporation—what steps to take, and upon the law which should govern. Mr. R. said that the trustees might be appointed, and if they thought the Club could incorporate they could perfect by the proper steps.

Mr. Maslin opposed the suggestion, and said that if the Club desired to incorporate, let the trustees be elected as provided by law and close the matter up, but there is no advantage in electing trustees upon the contingency of incorporating. If the Club wished further iuformation let a committee be appointed for that purpose,

Mr. Coulter said he understood that the Club had set this for the day to elect trustees as an incorporation. If we are ready to incorporate let us do it, and the trustees can report constitution and by-laws as they think best, but if we were not ready to elect, he would move that the election of trustees be continued and that a committee of five be appointed, with power to enquire into the law of iucorporation, the feasibility of incorporating, and report in writing to the Club,

Motion carried, and the President appointed Messrs. Coulter, Maslin, Rector, De Turk and Forsyth as the committee.

Mr. Thompson said he would like to hear from the farmers the prospects of the cropa.

Mr. De Turk said he had observed this season that generally wherever the ground was plowed it was in condition to be seeded. The ground appeared in better condition for plowing thau it had been for many yeara. He estimated that more ground, especially adobe soil, had been seeded iu the county at this aeason than had been in any previous year by tho same time.

Mr. Rector said he had auple opportunity to know. The farmers came to his mill and of course talked wheat. One thing they are agreed upon, and that was that the land was in better condition than ever beforo. As the farmers expressed it, it pulverizes better. My own land is in such fine tilth that you can sow small seed.

Mr. Forsyth said his own land was mellow as an ash heap.

A member said that a farmer iu Bouuett Valey informed him that his land was in better condition, not only for plowing, but for seeding, than it had been for fifteen years, and that the same was generally true of Bennett Valley.

Mr. Coulter said he found farmers generally engaged in seediug. The sowing of crops is more advanced than I have known it before so early in the year. I have done sowing my small grain and am saving a small portion of my land for corn. The good weather operates to the disadvantage of the Club, and it calls the husbandmen to their labors, aud the attendance at our meeting is small. He had also noticed that some farmers were preparing for other crops besides wheat and corn. We ought to experiment with other crops.

Sugar Beets.

Mr. Maslin said the remarks of the last speaker gave him an opportunity to ventilate his hobby. He hoped that a number of the farmers would experimeut with sugar beets, and if the soil waa found kiudly to their culture we might see in time a sugarie established in Santa Rosa. Some time ago a farmer near by had presented to Mr. Thompson, the editor of the *Democrat*, a small box containing saccharine matter from sugar beets raised by him, but the fact that saccharine matter could be obtained was of no value unless it could be proven that it was capable of crystallization. To secure the building of a sugarie in our midst we must show capitalists that we can raise the proper kinds of beets, that there is sufficient soil favorable to their culture in the vicinity of the factory from which an ample supply can be obtaiued, that the farmers will engage in the business of raising beets, and next, and most important, that the juice of the beets contain percentage enough of saccharine matter, and that it will crystallize into sugar. We must experiment so that the facts adduced will be certain euough to be of scientific value and leave nothing to be assumed.

Professor Carr told the speaker that it was not necessary to have the beets taken to a factory, but if a small amount of the juice was sent to the University it could be tested amply and surely for all practical purposes. Now if each farmer will sow a small portion and keep a record of the kind of soil, depth of sowing, time of maturing, product to the acre, distance of farm from the county seat, cost of raising, and report the same to the Club, the several lots could be tested, and when the result is obtained, if favorable, capitalists could be approached with the certainty that they would build a factory. We might not have to go beyond our own county for the capital. He hoped to see the day when this Club would be the means of building the factory and thus provide a home market.

Mr. De Turk said he hoped aome of the members would make the experiment. If he was sure he could get the true sugar beet he would sow some and keep a record as suggested.

Mr. Whittaker said that sugar beets could be raised was not a matter of doubt. He had raised them; had grown common beets to weigh 21 pouuds. For one, if a factory was erected, he promised to furnish it gratis the first year with the product of five acres. Whether the beets would produce sugar he does not know. Even if the juice would not crystallize we could lose nothing, for the beets were excellent feed for stock, and one year's growing might induce farmeis to raise food for stock and devote less land to grain growing.

Mr. Coulter said, sugar beets are a hobby of mine also. I have heard that some beets, or rather the sugar beets in some soils would not crystallize into sugar, and I believo in the necessity of proving beyond a doubt whether beets raised in this vicinity are capable of producing sugar. Let us try the experiment. I advocate the cultivation of tho beet since, by it, a great deal of alkali will be elimiuated from our soil. Some of it needs such a medicine. I understand that Mr. Hixon produced his beets upon red land; there is a great deal of red land in the county, and if experiment will show it favorable to the beet, it would be a boon to the commuuity. I hope that those who can will sow a little, and on every kind of soil on his farm.

Mr. Staley said, I live near Mr. Hixon and kuow how he prepared the syrup shown to Mr. Thompson. The beets had gone to seed, aud one of the hands was directed to gather the seed from a number of beets. For trial he chopped the latter to a pulp, and obtained a wash-boiler full; by slow boiling he obtained two common-sized milk-pans of syrup. After boiling the beets were too sweet even then to eat. The beets had stood a year and had gone to seed.

Mr. Davis said, I am a student at the University in the department of Professor Carr, and if any one will furnish the juico or syrup for analysis, I will take pleasure iu deliveriug it to Professor Carr. I return to the University in about two weeks. Several small bottles of the juice or syrup would be enough for all practical purposes.

Mr. Staley said, I will furnish enough juice from Mr. Hixon's beets and perhaps I can get some of his beet seed for distribution. Mr. H. did sell the seed for $1 per pound, bnt no doubt would contribute enough for experimental purposes.

Mr. De Turk said, if I devote time and labor to experiment I want to know that I have pure sugar beet, and the true Silesian variety. I know that we are frequently deceived in the purity and variety of seed purchased, and unless the seed is carefully grown and gathered, that is, the beet cultivated for seed and the latter grown to maturity and gathered clean, the experiment would have no value. I would like to know where we can get waranted genuine, clean sugar beet aeed.

Mr. Maslin—I will undertake to obtain the seed if they can be obtained. I will contribute that much to the experiment, if the farmers will carry it out. I do not think an analysis from Mr. Hixon's beets would be of any value. I am told that excessive growth is not favorable to a large percentage of saccharine matter. What we want is to ascertain the largest yielding capacity per acre of our aoils, and next, the highest percentage of sugar in the beets. Experimonts carefully and precisely conducted, taking nothing upon guess, can alone determine these facts, and these are the only facts capitalists require to know. I will say here that Professor Carr said that we need not be frightened by the large amount said to be required to start a augarie, that the capital said to be involved in augar beet factories was largely in exceas of the positive wanta of the business.

President Holmes said, I have in my possession several varieties of winter wheat aent to me by Senator Casserly. Whoever will take a package of the wheat and sow the same and report the yield and condition of cnlture to the Club may have one. It is important that the report shall be concsientiously made, as the result may be of infinite value to the farmers.

This is one means of usefulness possessed by the Club. It stimulates experiment and emulation, and makes the knowledge of each a common fund.

The followiug gentlemen applied for the wheat and promised to cultivate and report: Messrs. Peterson, Forsyth, Staley and Whittaker.—*Sonoma Democrat.*

Resistance of Building-Stone to Heat.

The great fires at Chicago and New York have attracted much attention to the relative values of different kinds of building-stone in resisting the heat generated in great conflagrations. Mr. Wight, after the Chicago fire, carefully collected such facts and evidence as seemed most pertinent to this question, and embodied the same in an address before the American Institute of Architects, at Bostou.

It is stated that in the Chicago fire none of the limestones stood the test of heat; but some were worse than others. The Illinois limestone "was, in very many instances, entirely calcined." "With regard to this stone," says Mr. Wight, "it was a common thing for it to explode when the heat came suddenly upon it and was very intense. It seemed to calcine with great rapidity, and I suppose the effect was very much like that seen in the manufacture of popcorn.

The limestones used for building consist essentially of carbonates of lime, or of carbonate of lime and magnesia—the latter being known as dolomite. When limestone is exposed to a red heat, the carbonic acid is driven off and the stone crumbles into "burnt lime." Limestone free from magnesia, however, will stand a much higher heat than the dolomite—the latter crumbling at 600° Fah., a temperature which leaves the former intact. Mr. Wight speaks of the so-called "petroleum stone," which was reported to be entirely consumed, but which, in fact, stood the heat very well. There was one church in Chicago built of this stone, in which the amount of oil was so great that the heat of the sun would draw it out soon after the stone was set up in a wall, and it would run down in black streaks. "The effect of the heat on the inside of the walls threw out upon the exterior all the oil it contained, which formed a thick, hard coating, about a quarter of an inch in thickness; and though the interior of the church was exposed to great heat, and every particle of wood in it was burned up so that there was not a scrap left in it, the interior sides of its walls were not greatly injured. In some places the stone had flaked off, and yet this stone stood the test better than any other natural stone used in the city."

Saudstones stood the heat best at Chicago, and proved the excellence of that material for fire-proof structures. The only building in the burnt district of the sonth side at Chicago, which stood intact, was of Cleveland sandstone. "In that building there was not a flaw, nothing cracked or broken." Sandstone is made up of from 80 to 90 per cent. of silica, the balauce cousisting of alumina, lime, magnesia, iron, etc. The oxide of iron is usually the cementing material.

Grauite, quartz, slate, and most other rocks of that class used for building purposes, are liable to crack, oftentimes in an explosive manner. This is due to the fact that they contain a considerable quantity of water, mechanically held within their interstices. Quarrymen and miners will often, on examining the walls of such rocks immediately after blasting, notice that they are more or less moist—the moisture being sometimes so great aa to collect in drops and even run down the face of the recent fracture. This moisture is retained in building blocks, aud when great heat is applied, being couverted into steam, canses explosions, as above. Sandstone ia quite free from moisture; hence, chiefly, its power to resist the action of heat.

Artificial stonea, compoaed of silicate of lime and alumina, with water chemically combined—not mechanically enclosed—are of the nature of sandstones, and are well-calculated to resist heat. It is said that large nnmbers of the Frear stone blocks which passed through the Chicago fire, and which do not contain any free water, are being used the aecond time in the construction of other buildings.

Bricks, if of good qnality, reaist the action of fire very well. If they contain material which vitrifiea readily they lose their atrength and succumb. True, they abaorb water easily, bnt they part with it so readily that no danger enaues from that cause. When good bricks are built into a wall of proper thickness they form about as indestructible a material as can be used for resisting a great heat.

We have not as yet seen any report upon the particular and comparative effect of heat upon the stone and brick material subjected to the heat of the recent Boston fire. Careful observations have no doubt been made, the results of which will doubtleas ere long find their way into print. Quite too little attentiou is paid by builders and architects to the heat resisting capacity of the stone they use. More attention is paid to the crushing strain which it will bear and the facility with which it may be worked. Mineralogy aud chemistry are quite as essential to the architect in determining the selection of his building materials as is the hydraulic press.

Our Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

TUESDAY, Dec. 31st, 1872.

With the present number of the RURAL PRESS the old year will have passed swey; a year of which the psst six months have beon particularly eventful ones for the farmers of California. We close the yesr with good prospects for what remains unsold of last year's wheat crop, snd owing to the bounteous rsin, begin the new yesr with excellent prospects for the coming harvest. Wheat, which st the beginning of the week was week on account of the rsin is agsin firm on account of the advsnce of three cents in the Liverpool msrket.

RECEIPTS.—Receipts since last Tuesday hsve hardly sveraged one half of those of the previous week, save only in the matters of Whest, Wool, Buckwheat and Barley. And this is true not only of those from the interior, but slso of those from Coast ports whence we hsve received no Whest, Potstoes or Oats, and only 380 bsgs of Barley. This is due partly to the rain, and psrtly to the holidsys—in the matter of potatoes, being induced by the low prices lately obtainable in this city.

We summsrise receipts of Bsy produce to date ss 6,413 qusrter sacks of Flour, 241,795 centals of Whest, 2,850 do of Barley, 100 do of Osts, 455 do of Buckwhest, 49 do of Corn, 317 do of Besns, 200 do of Corn, 25 do of Mustard Seed, 1,120 do of Bran, 445 do of Middlings, 1,053 do of Potetoes, 319 do of Onions, 1,290 of Hides, 352 bales Wool, 35 tons of Sslt, 10,470 gsllons of Wine, 441 tons of Hsy, 32 tons of Straw, 88 bbls and 153 half bbls of Beet Sugsr, snd 25 bsles of Cotton.

Wheat receipts at Oaklsnd Wharf hsvc sggregated 291 car loads, or 58,200 centsls.

The following receipts hsve come from Cosst ports: 2,699 sacks of Corn, 660 do of Mesl, 23 do of Castor Besns, 380 do of Bsrley, 25 do of Flax Seed, 751 Hides, 80 bales of Wool, 2 kegs of Wine, and 22 sacks of Besns. The Corn came from Huenema and Ssn Diego; the Meal, Besns and Wine from Ssn Diego, the Hides from Colorado River, San Diego, San Luis Obispo snd Santa Bsrbara; tho Bsrley from San Luis Oblspo, and the Wool from Sants Barbsra and San Diego.

From Valparsiso we have received 30 sacks of Alfslfa Seed.

BARLEY.—Barley has been weak for the lsst fortnight. It now, however, shows signs of improving somewhst and ssles have been made of choice Bay st 10c higher than were received lsst week. Other kinds however, remsin the ssme. We note sales of 400 sacks of good Coast at $1.30, 850 do of Bay Feed snd Cosst st $1.32½, snd 350 do of Choice Bay at $1.50.

FLOUR.—Flour hss fallen 25c per barrel for Extra during the week. There have beeu no exports during the week. We noto sales of 500 bbls of Oregon Superfine st $5.75; 300 do of Pioneer at $5.87½; 150 of do at $5 75; 5,000 bbls of Vsllejo Superfiue for Liverpool, per "Jsnet Ferguson," at privato rstes; 7,000 qr ssks of Superfine, free on board, at $4.20, and 250 bbls of Pioneer Extrs, at $5.87½.

HAY.—The supply of Hay is limited, and the best quality, partlcularly of whest, is scarce. The demand is falr, and prices rule as last week.

OATS.—Osts may be quoted at about the ssme figures as last week. Rcceipts have been very limited. We note the following sales: 300 sacks of Fsir at $2.15, and 650 of Choice at $2.25.

POTATOES.—Receipts of Potatoes hsve been unusually limited, there being no srrivals from Coast ports. In consequeuce the tone of tho msrket is much firmer thsn it has been for the last two or three weeks. We note sales of 650 sacks of Humboldt st $1.12½; snd 500 do of Pigeon Point, private. The receipts of Sweet hsve been for th is past year 50,000 sacks—sbout double the qusntity received last yesr.

WHEAT.—The risc of price in Liverpool has caused an unusual firmness in this msrket, the great rainfall and the hopes of an exceedingly abundaut harvest to the contrary notwithstauding. Having receded a couple of cents during tho week, it has agaln advanced and the highest ls quoted at $2.05 per cental. Wheat in the Liverpool market is now 12s. 6d. to 12s. 8d. for average California. Freights have fallen during the week and do not now exeed $3 per ton to Liverpool. We note sales of 1,370 sacks of fair and mixod at $1.87½; 1,800 sacks of choice shipping at $1.90; 3,375 sacks of do. and choice milling at $1.97½, and 500 sacks good at $2.

Exports have not equalled those of last wcek, though they have beeu moderstely large. They have iucluded to Liverpool per "St. Nicholas" 55,400 centals; per "Iron Duke," 43,150 centals, and per "Ericson" 44,291 centals; to Queenstown per "Lima" 26,848 centals; per "Monte Rosa" 40,183 centals; per "Arracan" 20,711 centals, and per "Ukrsiue" 21,559 centsls; making a total of 261,202 centals worth $474,190.

WOOL.—Wool remains as lsst week. About 100,000 lbs. were sold during the week ending Saturday 29th. The quantity sent overland by railroad durlng the year was 23,375,766 lbs., nearly a million pounds in excess of that sent durlng 1871.

GENERAL MERCHANDISE.

While retail business has been as last week, unusually brisk, wholesale business has been very dull, and there is little to report. We have received assorted cargoes from New York per "General Butler," "Malay" and "Anahuac," from Boston, per "Hazard," from New Zealand, per "Nebraska," and cargoes of Coal, Drugs, Lime, Chemicals, etc., from Shields per "St. Lucie," and from Hamburg per "Johanna Maria." We have received cargo of Ores, etc., from Colorada river, per "Newbern." Exports have consisted principally of Wheat, particulars of which are given elsewhere, and an assorted cargo for New York, Panama and Mexico per "Montana." Sales have included 1,300 casks of Cumberland Coal, principally per "Tamerlane," 680 do of Egg and 270 Lehigh per "John Bryant," 1,300 tons of Egg per "St. Lucie," 800 tons of Austrslian per "Silas Fish," and 700 tons of Seattle at $14; 25 casks of Sal Soda, 80 plpes of California pure Spirits at $1.05, and 100 boxes of Coke Tin at $14.

CITY MARKET REPORT.

DOMESTIC PRODUCE AT WHOLESALE.

SAN FRANCISCO, Tuesday, A. M., Dec. 31.

FLOUR.			
Alvso Mills, bbl.	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 25
Commer'l Mills	4 50	@	6 25
Golden Gate	4 50	@	6 25
Golden Age	4 25	@	6 00
National Mills	4 25	@	6 00
SantaClaraMills	4 25	@	6 00
Genesee Mills	4 25	@	6 00
Oregon	4 25	@	6 00
Vallejo Star	4 25	@	6 00
Venus, Oakland	4 25	@	6 00
Stockton City	4 25	@	6 00
Lombard. Sno	4 25	@	—
BEANS.			
Beans em'l w'ite	3½	@	—
do, butter	4¾	@	—
do, large, do	5	@	—
do, bayo	3½	@	—
do, pink	3¾	@	—
BROOM CORN.			
Per ton	$50	@	100
GRAIN, ETC.			
Wheat Cal. coast	1 85	@	1 95
do, shipping	1 90	@	2—
do, milling	1 95	@	2 00
do, Oregon	1 85	@	2 00
Barley, Dark C'st	1 25	@	—
do, Light	1 37½	@	1 40
do, Brewing	1 45	@	1 50
Oats, Coast	2 10	@	2 15
do, Bay	2 15	@	2 25
Corn, White	1 40	@	—
do, Yellow	1 50	@	1 35
Buckwheat	2 00	@	2 25
Rye	2 20	@	2 50½
DAIRY PRODUCE.			
Butter, Cal. fresh	60	@	—
do, ordinary roll	50	@	—
do, choice	60	@	—
do, new firkin	35	@	—
do, packed	37½	@	—
do, New York	32½	@	—
Cheese, Cal. new	15	@	—
do, Eastern	15	@	—
Eggs, Cal. fresh	57½	@	60
do, Oregon		@	—
do, Eastern	45	@	—
FEED.			
Bran per ton	26	@	—
Middlings	30	@	35
Hay	16	@	24
Straw	10	@	
Oil cake meal	35	@	—
FRESH MEAT.			
Beef, fr quality	10½	@	11
do, second do	8	@	9
do, third do	6	@	7
Veal	8	@	—
Mutton	7	@	—
Pork, undressed	5½	@	6
do, dressed	7½	@	8
HOPS.			
California, 1871	—	@	—
do 1872	37½	@	40
MISCELLANEOUS.			
Beeswax, per lb	32½	@	—
Honey	10	@	15
Onions	2½	@	2½
Flaxseed	3	@	—
Canary do	4	@	5
Mustard do, white	1½	@	2
do, brown	2	@	3
Peas	3 50	@	—
NUTS.			
Pesnuts per lb	4	@	6
Pecan nuts	18	@	—
Hickory do	10	@	—
Brazil do	16	@	18
Prince Almonds	16	@	—
Cocanuts, ₱ 100	12 00	@	—
Alm'ds h'rd shell	12	@	15
do, soft	23	@	26
POTATOES.			
Sweet, per lb	1½	@	—
Humboldt	1⅝	@	1¾
Monterey	1	@	1½
Tomales	1	@	1⅛
POULTRY AND GAME.			
Live Turkeys lb.	18	@	20
Hens, per dz	7 50	@	8 50
Roosters	7 00	@	8 00
Chickens	4 00	@	6 00
Ducks, tame, doz	10 00	@	12 00
do, Mallard	3 00	@	4 50
Geese, per doz	2 50	@	3 00
Quail, per doz	2 00	@	—
Hare, per doz	3 50	@	4 00
Rabbits, per doz	1 00	@	1 50
Lerks, per doz	50	@	75
Doves, per doz	50	@	75
Plover, per doz	50	@	75
Curlew, per doz	50	@	75
Teal, per doz	1 50	@	—
Snipe, Eng., doz	2 50	@	3 00
do, small, doz	1 00	@	—
Venison, per lb	8	@	10
PROVISIONS.			
Cal. Bacon, per lb	12	@	13
Eastern do	15½	@	12
do sugared	12½	@	—
Cal. Hams	14	@	—
Eastern do	16	@	—
Cal. Smoked Beef	10	@	11
WOOL, ETC.			
Native, per lb	12	@	20
California	25	@	28
Oregon	25	@	28
Hides, dry	18	@	20
do, green sslt'd	9	@	10
Tallow	8	@	8½

FRUIT MARKET.

Plenty of the season fruits. We are just beginning to get Los Angeles oranges and lemons, the latter from the Melsga seed. We will have large shipments soon. Oranges will turn out well this year, and will be cheaper than ever before. Grapes are out of the market. There are plenty of dried fruits in the market. Los Angeles lemons, per 100, $4.00. Of California raisins we will soon have plenty. One man this year put up 2,000 boxes, and they are now selling from 8 cents to 10 cents per lb.

FRUIT MARKET.			
Mex, Or. per 1000	45 00	@	50 00
Limes, ₱ M	15 00	@	20 00
Au'ln Lemons, box	9 00	@	16 00
Malaga do., bx	15 00	@	—
Bananas, ₱ bunch	50	@	3 50
Pineapples, ₱ dz	6	@	—
Apples, eat'g, bx	1 25	@	2 00
" Cooking	75	@	1 25
Pears, Eating	1 50	@	2 50
" Cooking	50	@	1 00
Pomegran'e, ₱ 100	—		none
Grapes, Mission	—		none
Rose of Peru	—	@	—
Blk Hamburg	1 50	@	2 00
Black Prince	—	@	—
Muscat of Al'x	1 50	@	2 00
Flame Tokay	1 50	@	2 00
Black Morocco	—	@	—
Wine Grapes	1¼	@	1½
DRIED FRUIT.			
Apples, ₱ lb	7	@	8
Pears, ₱ lb	7	@	9
Peaches, ₱ lb	10	@	12½
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	5	@	10
Pitted, do ₱ lb	18	@	20
Raisins, ₱ lb	8	@	10
Black Figs, ₱ lb	8	@	9
White, do	10	@	1 2½
VEGETABLES.			
Cabbage, ₱ lb	½	@	—
Garlic, ₱ lb	5	@	6
Green Peas	—	@	8
Green Corn ₱ doz	—	@	—
Marrowfat Squash per ton	10 00	@	15 00
Artichokes, ₱ lb	4	@	—
Tomatoes, river ₱ bx	—	@	2 00
String Beans, ₱ lb	8	@	—
Lima Beans		@	10
Peppers	—	@	25
Okra	6	@	7

LUMBER MARKET.

CARGO PRICES REDWOOD.			
Rough, ₱ M	$20	@	00
Rough refuse, ₱ M	16	@	00
Rough clear, ₱ M	32	@	50
Rough clear refuse, M	22	@	50
Rustic, ₱ M	35	@	00
Rustic, refuse, ₱ M	21	@	00
Surfaced, ₱ M	32	@	50
Surfaced refuse, ₱ M	22	@	50
Flooring, ₱ M	30	@	00
Flooring, refuse, ₱ M	20	@	00
Beaded flooring, ₱ M	32	@	50
Beaded floor, refuse, M	22	@	50
Half-inch Siding, M	22	@	50
Half-inch siding, ref, M	16	@	00
Half inch, Surfaced, M	25	@	00
Half inch Surf, ref, M	18	@	00
Half inch Battens, M	22	@	50
Pickets, rough, ₱ M	14	@	00
Pickets, rough, p'ntd	16	@	00
Pickets, fancy, p'ntd	22	@	50
Shingles, ₱ M	13	@	00
PUGET SOUND PINE—Retail Price.			
Rough, ₱ M	$25	@	00
Flooring and Step, ₱ M	37	@	50
Flooring, narrow, ₱ M	40	@	00
Flooring, 2d quality M	30	@	00
Laths, ₱ M	3	@	50
Furring, ₱ lineal ft		@	1c
Rough, ₱ M	$25	@	00
Rough refuse, ₱ M	20	@	00
REDWOOD—Retail Price.			
Rough Pickets, ₱ M	18	@	00
Rough Pickets, p'd, M	20	@	00
Fancy Pickets, ₱ M	30	@	00
Siding, ₱ M	27	@	50
Tongued and Grooved, surfaced, ₱ M	40	@	00
Do do refuse, ₱ M	27	@	50
Half-inch surfaced, M	40	@	00
Rustic, ₱ M	42	@	50
Battens, ₱ lineal foot		@	1c
Shingles, ₱ M	3	@	50

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	15	@	—
Flour Sacks ½s	16¼	@	—
" ¼s	8½	@	9¼
Stand. Gunnies	—	@	17
" Wool Sacks	60	@	70
" Barley do	17	@	—
Hessian 40-in gds	—	@	12
COFFEE.			
Costa Rica per lb	18	@	—
Guatemela	18	@	—
Java	22	@	—
Manilla	16	@	—
Rio		@	—
Ground in cs	25	@	—
Cbicory	10	@	—
FISH.			
Pac. Dry Cod, new			6
bundles, ₱ lb	—	@	7
Salmon in bbls	8 50	@	—
do ½ bbls	—	@	5 50
do 2½ lb cans	1 10	@	—
do 2 lb cans	2 50	@	—
do 1 lb cans	2 25	@	—
Pick. Cod, bbls	8 50	@	—
do ½ bbls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, bx ₱ lb	—	@	50
Mack'l, No. 1, ½ bls	—	@	11 00
" Extra	—	@	12 00
" in kits	2 25	@	2 50
" mess	—	@	3 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size	—	@	6
PAINTS.			
Stand. Wh. Lead	—	@	12½
Whitening	—	@	2½
Chalk	—	@	2½
Paris White	—	@	3
Ochre	—	@	3½
Venetian Red	—	@	3
Red Lead	—	@	11½
Litharge	—	@	11
RICE.			
China No. 1, ₱ lb	6½	@	7
do 2, do.	5½	@	6
Japan	6	@	—
Patna	7½	@	—
Hawaiian	9	@	—
SOAP.			
Castile, ₱ lb	12½	@	13
Local brands	6	@	7
SPICES.			
Allspice, per lb	17	@	—
Cloves	23	@	—
Cassia	30	@	—
Nutmeg	87½	@	—
Whole Pepper	18	@	19
Ground Allspice	—	@	22½
do Cassia	35	@	40
do Cloves	22½	@	25
do Mustard	25	@	30
do Ginger	22½	@	—
do Pepper	22½	@	—
do Mace	1 15	@	—
SUGAR, ETC.			
Cal. Cube per lb	—	@	12
Circle A crushed	—	@	12
do granulated	—	@	11½
Golden C	—	@	10½
do Extra	—	@	10½
Hawaiian	20	@	22½
Cal. Syrup in bls	32½	@	50
do in ½ bls	35	@	37½
do in kegs	40	@	45
SALT.			
Cal. Bay, per ton	6 50	@	15 00
Carmen Island	14 00	@	15 00
Liverpool fine	24	@	—
do coarse	19 00	@	20 00
TEA.			
Oolong, Canton	19	@	25
do Amoy	24	@	50
do Formosa	40	@	90
Imperial Canton	25	@	35
do Pingsuey	45	@	90
do Moyune	60	@	1 00
Gunpowder, Cant	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	1 00
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

TUESDAY, Dec. 31, 1872.

IRON.—			
Scotch Pig Iron, ₱ ton	$50 00	@	55 00
White Pig, ₱ ton	50 00	@	55 00
Refined Bar, had assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 07½	@	— —
Sheet, No. 24 to 27	— 08	@	— —
Horse Shoes	9 00	@	
Nail Rod	10½	@	
Norway Iron	9		
Rolled Iron	—		
Other Irons for Blacksmithe, Miners, etc.	5½	@	6½
COPPER.—			
Sheatbing, ₱ lb	— —	@	— 45
Sheathing, Yellow	— 38	@	— 40
Sheathing, Old Yellow	— —	@	— 13
Composition Nails	— 28		— 30
Composition Bolts	— 28		— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	18 00	@	— —
Platee, I C Charcoal	14 00		— —
Roofing Plates	18 50		— —
Banca Tin, Slabs, ₱ lb	— 50		— —
STEEL.—Englieb Cast, ₱ lb	— 20		— 22
Drill	20		— —
Flat Bar	20		— —
Plough Points	16		—17
Russia (for mould boards)	12½		15

Leather Market Report.

[Reported for the Press by Dolliver & Co.]

SAN FRANCISCO, Tuesday, Dec. 31, 1872.

Shipments of Sole Leather to the East are quite heavy, snd prices are firm, though there has been no advance. Domestic Calf Skin has advsneed 10 per cent., in consequence of the large smount destroyed, and French Skins are firm with an upwsrd tendeucy.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Country Leether, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$60 00@
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Lemoine, 16 to 18 Kil, ₱ doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 16 to 19 Kil., per doz	63 00@ 65 00
Cornellian, 12 to 14 Kil., per doz	56 00@ 60 00
Cornellian Females, 14 to 16 Kil	65 00@ 70 00
Ogeran Calf, ₱ doz	54 00@
Simon, 18 Kil., ₱ doz	60 00
Simon, 20 Kil. ₱ doz	65 00
Simon, 24 Kil. ₱ doz	72 00
Robert Calf, 7 and 8 Kil	35 00@ 40 00
French Kips, ₱ lb	1 10@ 1 30
California Kip, ₱ doz	55 00 to 70 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	18@ 23
Wax Side Leather, ₱ foot	20@ 22
Eastern Wax Leether	26
Whitteker's	@ 25
Johnson's Or	25 @ 25
Glounder, ₱ lb	@ 37½
Salmon, ₱ lb	37½@ —
Smoked, new, *	@ —
Pickled, ₱ lb	6 @ —
Rock Cod, ₱ lb	@ —
Cod Fish, dry, lb	12½@ —
Perch, s water, lb	@ —
Fresh water, lb	15@ 18
Lake Big. Trout*	37½@ —
Smelts, large ₱ lb	@ 15
Small do	12½@ 15
Silver Smelts	@ —
Soles, ₱ lb	40 @ —
Herring, fresh *	4 @ 5
Sm'kd, per 100	@1 00
Tomcod, ₱ lb	@ 20
Terrapin, ₱ doz	5 00 @8 00
Mackerel, p'k, ea	15 @ —
Fresh, do ₱	@ —
Sea Bass, ₱ lb	@ —
Halibut	62½@ 75
Sturgeon, ₱ lb	4 @ 5
Oysters, ₱ 100	1 00 @ —
Chesp. ₱ doz	75 @1 25
Turbot	50 @ —
Crabe ₱ doz	1 00 @
Soft Shell	37½ @ —
Shrimps	10 @ 12
Prawns	— @1 00
Sardines	10 @ —

San Francisco Retail Market Rates.

TUESDAY NOON, Dec. 31, 1872.

FRUITS, VEGETABLES, ETC.

Plenty of the season fruits. We are just beginning to get Los Angeles Oranges snd Lemons—tho latter from Malsga seed. They look well. We will have large shipments soon. Oranges will turn out well this year; will be cheaper than ever before. Grapes sre out of the msrket. There are plenty of Dried Fruits in the market. Los Angeles Lemons, per 100, $4.00. Of California Raisins we will soon have plenty. During 1872 one man put up 2,000 boxes, and they are now selling from eight cents to ten cents per pound.

Apples, pr lb	5	@	8	Carrots, ₱ doz	20	@	25
Pears, per lb	6	@	12	Celery, ₱ doz	75	@	—
Grapes	6	@	25	Cucumbers, †	—	@	—
Apricots, ₱ lb	—	@	—	Tomatoes, ₱ lb	8	@	10
PineApples, each	75	@1	00	Green Peas	—	@	10
Bananas, ₱ doz	75	@	—	String Beans	15	@	20
Canteleups	—	@	—	Cress, ₱ doz bun	—	@	25
Watermelons	—	@	—	Dried Herbs, ₱ lb	25	@	—
Cal. Walnnts, lb	15	@	20	Garlic	8	@	10
Cranberries, ₱ g	—	@	75	Green Corn, doz	—	@	—
Strawberries, lb	—	@	—	Lettuce, ₱ doz	25	@	35
Raspberries, lb	—	@	—	Musbrooms, ₱ lb	20	@	50
Gooseberries*	—	@	—	Horsersdish, ₱ lb	20	@	—
Cherries, ₱ lb	—	@	—	Okra, dried, ₱ lb	50	@	
Oranges, ₱ doz	75	@1	00	do fresh, ₱ lb	—	@	—
Limes, per doz	35	@	40	Pumpkins, ₱ lb	2	@	3
Figs, fresh Cal. *	15	@	20	Parsnips, doz	—	@	25
Figs, Smyrna, lb	25	@	50	Parsley		@	25
Asparagus, wb.*	60	@	75	Pickles, ₱ gal	50	@	75
Artichokes, doz.	50	@1	00	Radishes, doz	25	@	—
Brussel's sprts, *		@	10	Summer Squash	5		
Beets, ₱ lb	20	@	25	Merrowfat, do.	2	@	3
Potatoes, New ₱ lb		@	6	Hubbard, do	3	@	5
Potatoes, sweet,*	2	@	3	Dry Lima, shl		@	16
Broccoli, ₱ doz	1 50	@		Spinege, ₱ bskt.	10	@	—
Canlitlower, †	15	@	25	Salsify, ₱ bunch	10	@	—
Cabbage, ₱ doz	75	@1	00	Turnips, ₱ doz	25	@	—

POULTRY, GAME, FISH, MEATS, ETC.

Poultry is still in full supply and prices tend downward There are plenty of turkeys to be obtained below our quotation, say from 10 to 15 cents per lb. Fish are still dear and very scarce. There are no fresh water perch, mackerel or pickled salmon in market. Prawns and small smelt are scarce. Chesapeake oysters are plenty, as also are oysters from New York. The former are raised from plants near Saucileto, in Richarason's Bey.

Chickens, apiece	75	@1	00	Whitteker's	—	@	25
Turkeys, ₱ lb	20	@	25	Johnson's Or	25	@	25
Mel d&Canv'sbkl	10	@	—	Glounder, ₱ lb	—	@	37½
Tame, do	1 00	@1	50	Salmon, ₱ lb	37½	@	—
Teal, ₱ doz	2 50	@3	00	Smoked, new, *	—	@	—
Geese, wild, pair	75	@1	25	Pickled, ₱ lb	6	@	—
Tame, ₱ pair	2 00	@2	50	Rock Cod, ₱ lb	—	@	—
Snipe, ₱ doz	3 00	@	—	Cod Fish, dry, lb	12½	@	—
Quails, ₱ doz	2 50	@	—	Perch, s water, lb	—	@	—
Pigeons, dom. do	3 00	@	—	Fresh water, lb	15	@	18
Wild, do	—	@2	00	Lake Big. Trout*	37½	@	—
Hares, each	—	@	50	Smelts, large ₱ lb	—	@	15
Rabbits, tame†	75	@1	00	Small do	12½	@	15
Wild, do, ₱ dz	—	@2	00	Silver Smelts	—	@	—
Beef, tend, ₱ lb	20	@	—	Soles, ₱ lb	40	@	—
Corned, ₱ lb	12½	@	—	Herring, fresh *	4	@	5
Smoked, ₱ lb	15	@	—	Sm'kd, per 100	—	@1	00
Pork, rib, etc., lb	—	@	15	Tomcod, ₱ lb	—	@	20
Chops, do, ₱ lb	15	@		Terrapin, ₱ doz	5 00	@8	00
Veal, ₱ lb	—	@	20	Mackerel, p'k, ea	15	@	—
Cutlet, do	—	@	20	Fresh, do ₱	—	@	—
Mutton chops,*	12½	@	20	Sea Bass, ₱ lb	—	@	—
Leg, ₱ lb	—	@	12½	Halibut	—	@	62½
Lamb, ₱ lb	—	@	20	Sturgeon, ₱ lb	4	@	5
Tongues, beef, ea	—	@1	00	Oysters, ₱ 100	1 00	@	—
Tongues, pig, ea	75	@1	00	Chesp. ₱ doz	75	@1	25
Bacon, Cal., ₱ lb	16	@	18	Turbot	50	@	—
Oregon, do	18	@	—	Crabe ₱ doz	1 00	@	
Hams, Cal, ₱ lb	18	@	20	Soft Shell	37½	@	—
Hams, Cross' s o	—	@	25	Shrimps	10	@	12
Choice D'field	—	@	25	Prawns	—	@1	00
				Sardines	10	@	—

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. pr lb	60	@	65	Syrup, S.F. Gol'n.	45	@	50
Cheese, Cal., lb	17	@	23	Dried Apples	7½	@	10
Lard. Cal., lb	12½	@	15	Dr'd Cer. Prunes	9	@	10
Flour, ex. fam. bl	6 00	@6	25	Dr'd Figs, Cal	9	@	10
Corn Meal, lb	3	@	3½	Dr'd Peaches	8	@	10
Sugar, wh. crshd	12	@	13	Oils, Kerosene		@	50
do lt. brown, lb	9	@	11½	Eggs	—	@	70
Coffee, Sbarboro's family grind, lb			27½	Wines, Old Port	3 50	@5	00
Coffee, green, lb	18	@	22	do Fr. Claret	1 00	@1	25
Tea, fine blk, 50, 65, 75		@1	00	do Cal. do. bot	3 00	@4	50
Tea, finst Jap, 55, 75, 90		@1	00	Whisky, O.B. gal.	3 50	@5	00
Candles, Admant'el	7	@	25	Fr. Brandy	4 00	@10	00
Soap, Cal., lb		@	10	Rice, lb	10	@	12½
Can'd Oysters, dz.	2 50	@3	75	Yeast Powders, dz.	1 50	@2	00

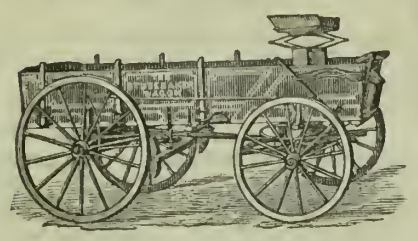
* Per lb. † Per dozen. ¶ Per gallon.

Plant Flowers.

The following sermon from the *Farmers' Advocate*, by "Theodore," will commend itself to our readers for its good sense and beauty:

Farmers' wives and daughters, here is a subject in which you all feel an interest. Taste leaps with joy at its discussion; pride approves the choice, judgment confirms it, health rejoices at the prospect, and the angels of the household will furnish willing hands for the accomplishment of the object. The object is for the queen of the household to surround it with shrubbery and flowers, make it attractive, healthy

STUDEBAKER WAGONS



Have become

The Standard Wagons of the Pacific Coast.

For Quality,
Durability,
Light Running,
Good Proportion,
and Excellent Style,

They Have no Peer.

Iron Axle,
Thimble Skein,
Header and
Spring Wagons,

Of all sizes, with heavy tires rivited on, always on hand and sold for $100 to $165.

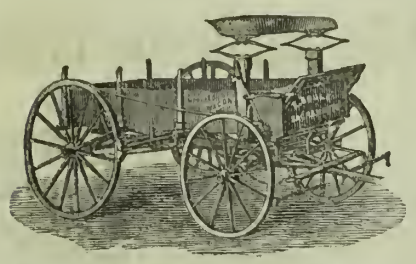
Having established a Manufactory to build Wagons, Beds, Bbakes and Seats, I am better prepared than ever to furnisb

Just the Kinds of Wagons Needed,

I make a specialty of the wagon trade.

The attention of Dealers is especially requested. Send for Circular and Price List.

16v3-3m **E. E. AMES**, General Agent.
Factory and Depot, 217 and 219 K street, Sacramento.



First Premium awarded at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best Improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
ap22-3m San Quentin, Cal.

Hill's Patent Eureka Gang Plow.



The following are some of the reasons why these Plows, are entitled to preference over any other Plow in use. They are made of the best material, and every Plow warranted. They are of light draught, easily adapted to any depth, and are very easily handled. They will plow any kind of soil, and leave the ground in perfect order.

FIRST PREMIUMS!

These Plows have taken First Premiums at the State Fair, at the Northern District Fair, at the Upper Sacramento Valley Fair, and the State Agricultural Society Premium of $40 for the best Gang Plow, after a fair test and competition with the leading Plows of the State.

Champion Deep-Tilling Stubble Plow,

Took the First Premium over all competitors at the State Fair, 1871. It furrows 14 in. deep and 24 wide.

This Gang Plow combines durability with cheapness, being made entirely of iron by experienced workmen, of the best material. Over three hundred are now in use, and all have given entire satisfaction.

Manufactured and for sale by the

SWEEPSTAKE PLOW CO.,

At SAN LEANDRO, CAL., under the personal superintendance of the Patentee, F. A. Hill,

And also by most leading Agricultural Dealers in the State. Send at once for Circulars, prices, etc. 21v3

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

MATTESON & WILLIAMSON,
14v2-3m Stockton, Cal.

P. DAVIS' WIRE AND PICKET FENCE.



Although about two hundred different styles of fences have been invented and patented in the United States within the past ten years, yet this Fence, for GENERAL FARM USE, stands at the head of the list. This is a Virginia invention, and the actual cost of the Fence complete in that State is less than fifty cents per rod. Three men can put up six hundred yards per day. Price of territory, and circular with full description of fence, sent on application.

WIESTER & CO.,
No. 17 New Montgomery street (under Grand Hotel), San Francisco.

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street.....SAN FRANCISCO.

IMPORTERS AND JOBBERS

—OF—

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

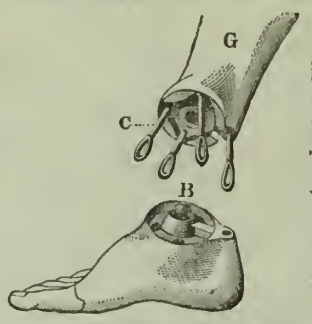
Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

MENZO SPRING,

MANUFACTURER OF DR. DOUGLAS BLY'S

PATENT ARTIFICIAL LIMBS.

Southwest corner of Second and Jessie streets, S. F.



THE BEST ARTIFICIAL LEG THERE IS MADE, with one exception, and that is

$100 Buys the Challenge Leg,

DR. BLY'S ANATOMICAL LEG,

with universal ankle motion. (The accompanying cut is its illustration).

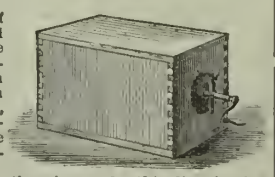
These Legs, besides being made of the best material, in the most artistic manner, are properly fitted to the wearer; and for this a practical guaranty is given. A trial, and satisfaction before pay is required.

For full price list, and descriptive circular of legs and arms, etc., call on or address

MENZO SPRING,
101 Jessie street, San Francisco, Cal.
20v4-1am-bp

CHURNS.

Those in want of BOX-CHURNS will do well to call at the old stand, 113 Commercial street, San Francisco, between Davis and Drumm, and examine our improvements before purchasing elsewhere.



The undersigned is the pioneer in this line, having manufactured them for the last ten years in this city.

☞ Patent applied for.

14v22-3m H. G. PRATT.

PUMPS AND STOVES.

A large assortment of FORCE and LIFT PUMPS; also, DEEP WELL PUMPS, RUBBER HOSE, Etc.

Celebrated Ranges—Union, Improved Richmond, and Eureka. A fine assortment constantly on hand.

No. 519 Market street, near First, San Francisco.
12v4-4m JAMES JOHNSTON.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGH BRED on either side you breed FORWARDS." —*Alexander*
"You get no FIGS from THISTLES"—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred Spanish Merinos from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.
Office and Rooms, in Webb's Building, 37 Second St., opposite the Grand Hotel.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.

—ALSO—



THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

40 Thoroughbred Angora Goats for Sale!

Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

Los Angeles County Lands.

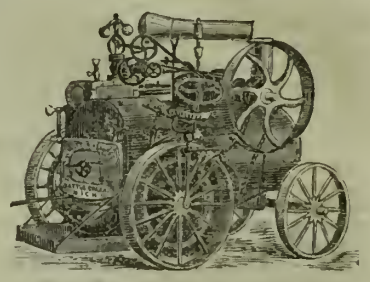
Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

KELLER & CO.,

CORNER 10TH AND K STREETS, SACRAMENTO.

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

READY'S PREMIUM GANG PLOW.

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

☞ Please call and examine. 17v4-1y

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

H & L AXLE GREASE.

TRADE MARK H&L Avoid Imitations

The attention of Teamsters, Contractors and is called to the very superior AXLE GREASE manufactured by

HUCKS & LAMBERT.

The experience of OVER TWENTY YEARS, specially devoted to the preparation of this article, has enabled the proprietors to effect a combination of lubricants calculated to reduce the friction on axles, and thus

Relieve the Draft of the Team,

Far beyond the reach of any who have but recently gone into the business; and as the H & L AXLE GREASE can be obtained by consumers at as

LOW A RATE

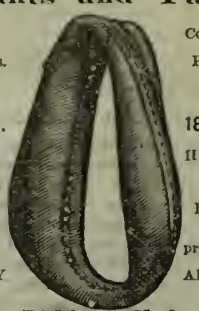
As any of the inferior compounds now being forced upon the market by unprincipled imitators, who deceive and defraud the consumer.

HUCKS & LAMBERT

Invite all who desire a First-class and Entirely Reliable Article, and which for Over 18 Years in this country has given such GENERAL SATISFACTION, to ask for the H & L AXLE GREASE. See that the trade mark H & L is on the red cover of the package, and take no other.
3v24-eowr

Merchants and Farmers,

Examine our HORSE COLLARS. Adopted by BEST IN USE. ALL GRADES. No complaints. No repairing. Don't believe FOR SALE BY Manufactured



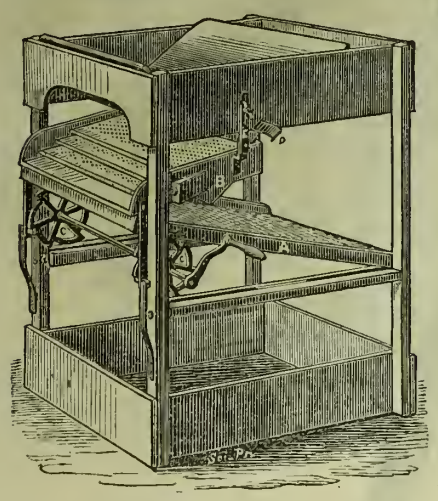
COPPER RIVETED Pat. Nov., 1861. U. S. Army. 18,000 SOLD. HEAVY & LIGHT. No ripping. Examine for yourselves. prejud'd partie ALL DEALERS only by

J. C. JOHNSON & CO.,
104 FRONT STREET, SAN FRANCISCO.
Dealers in Harness, SADDLERY, Leather, etc.
Liberal discount to the Trade. 19v4-3m

BRONZE TURKEYS,

Descended from stock weighing 62 lbs. to the pair—Premium Birds of N. Y. State Poultry Society.
Address W. CLIFT, Mystic Bridge, Connecticut.

HUNTER'S
IMPROVED GRAIN SEPARATOR.

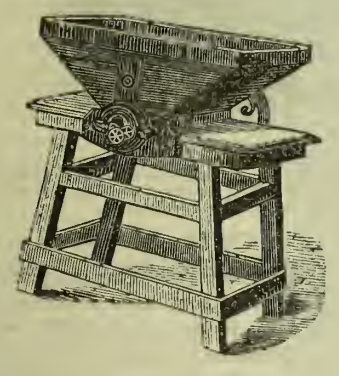


If you want clean grain, we invite you to call and examine HUNTER'S IMPROVED GRAIN SEPARATOR before buying any other machinery. The Improved machine is the most compact, simple and perfect Grain Cleaner now in use. It separates the Chess, Mustard, Barley, Oats, etc., from Wheat, and does its work rapidly. We keep constantly on hand the different sizes, and are prepared to show by actual test that it is the

Best Machine now before the Public.

It has never failed to take the First Premium at every State and County Fair where it has been exhibited at the East or on this Coast, for which we have the Diplomas and Medals to show.

THE CELEBRATED
CHALLENGE FEED MILL



For Farm use and Custom work. The only Practica Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

M. S. BOWDISH, General Agent,
With Hawley & Co., cor. California and Battery sts.,
16v4-3m San Francisco.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,
Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,



421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.
21v2-1y

H. K. CUMMINGS. 1858. J. M. MAXWELL. 1871.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.
4v23-1y

PARLOR GAME. **ACROSS THE CONTINENT** A TRIP TO NEW YORK FOR $2. Across the Continent.

A Beautiful Parlor Amusement. Fifty Chromo Scenes on the Overland R. R. "Across the Continent." Splendid gift for the Holidays; suitable for old or young. Sent to any address on receipt of $2. THISTLETON, 9 Post street. A new Comical Game, "A Wolf in the Fold," sent for $1. Agents wanted. de21-1m

Five Cents Paid Out for a
SILVER TIP
FOR A PAIR OF SHOES,

Adds more than their value than one dollar expended in any other way.

TO THE WORKING CLASS, male or female, $60 a week guaranteed; no capital required; full instructions and valuable package sent free by mail. Address, with 6 cents to start with sent free by mail. Courtlandt street, stamp, M. YOUNG & CO., 1 York. de21-4t

SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds,

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED,

Mesquit Grass Seed.

Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.
Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

RUSTIC AND WIRE BASKETS, FLOWER STANDS, FRUIT AND ORNAMENTAL TREES, ETC.,

AT THE OLD STAND.

Send for Catalogues. E. E. MOORE,
425 Washington street,
14v4-3m San Francisco, Cal.

SEED STORE.

SEVIN VINCENT & CO.,
No. 607 Sansome street.....SAN FRANCISCO.

Garden (80 Acres) at San Leandro.

Have the pleasure of announcing to the public, that having raised such immense quantities of Seeds this year, they are enabled to make a reduction of at least 30 or 40 per cent. on last year's prices. They have on hand a large assortment of CABBAGE PLANTS, BULBS, CLOVER, CANARY, HEMP, and all kinds of VEGETABLE and FLOWER SEEDS. 23v4-6t

CLEAN MESQUIT SEED.

1,500 to 2,000 lbs. for sale in chaff at

50 CENTS PER POUND.

Orders by mail promptly filled by
LOSSON ROSS,
14v4-3m 'Sebastapol, Sonoma County.

TREES AND PLANTS FOR SALE

—AT THE—

LIBERTY NURSERIES,

Petaluma.

I offer at moderate prices a general assortment of FRUIT, SHADE AND EVERGREEN TREES, AND SHRUBS.

Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

Send for Descriptive Catalogue and Price List.

Address W. H. PEPPER,
15v4 6m Petaluma, Sonoma County, Cal.

THOS. A. GAREY'S
SEMI-TROPICAL NURSERIES,

LOS ANGELES CITY, CAL.

I now offer a large and select stock of Semi-Tropical and Northern Fruits at GREATLY REDUCED PRICES.

Grafted Orange Trees a Specialty.

CHINESE DWARF MANDARIN.

Fruits when only three feet high. Very ornamental. Fruit of excellent quality.

Priced Catalogue sent free on application. Address

THOS. A. GAREY,
Los Angeles City, Cal.
Box 265. 17v4-3m

FLAX SEED AND CASTOR BEANS.

Pacific Oil and Lead Works,
SAN FRANCISCO,
Are prepared to

Furnish Seed and Contract for Next

Year's Crop of Flax Seed and Castor Beans at rates that, with proper cultivation on suitable land, will make them among the most profitable Crops grown.
For further particulars address

PACIFIC OIL AND LEAD WORKS,
3 and 5 Front Street.....SAN FRANCISCO.
21v4-3m

THE OLD
Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL AND FRUIT AND EVERGREEN and DECIDUOUS SHRUBS; also a large assortment of Choice and RARE ROSES too numerous to mention. Green House Plants, Flowers and Bulbs, Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
12v3-tf Washington street, Brooklyn, Cal.

SEEDLINGS AND ROOT GRAFTS

hould be ordered now. W. F. HEIKES, Dayton, Ohio.

Los Angeles Nursery and Fruit Garden,

LOS ANGELES.....CAL.

O. W. CHILDS, Proprietor.

Desires to call attention to his large and desirable assortment of

Orange, Lemon, Lime and Citron Trees,

POMEGRANATE AND OLIVE TREES,

Including a limited quantity of ORANGE, Grafted and Budded on Lemon Stock.

HAS ALSO ON HAND,

50,000 Choice English Walnut Trees,

From 2 to 10 feet high. Price, $10 per hundred. And a very superior lot of

Italian and Spanish Chestnut Trees,

1 to 6 feet high, at very low rates.

O. W. CHILDS,
23v25-4m Main street, Los Angeles, Cal.

Trees and Plants for Sale

—AT THE—

PETALUMA NURSERIES.

I now offer for sale a large and well selected stock of

Fruit and Ornamental Trees,



Hardy Evergreen Shrubbery and Greenhouse Plants.

Send for Catalogue and List of Prices.

Address WM. SEXTON,
23v4-3m Petaluma, Sonoma County, Cal.

FRUIT AND ORNAMENTAL TREES.

SMALL FRUITS,

EVERGREENS,

SHRUBS,

ROSES, ETC.

Dealers and Nurserymen Supplied at Low Rates.

Catalogues furnished on application

JOHN ROCK,
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Twenty Years in the Nursery Business in California.

A. D. PRYAL,
Nurseryman and Florist,

THREE MILES NORTH OF OAKLAND,
Near Temascal Creek.

Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental belts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, ht for forest culture; Oak Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A beautiful assortment of Roses and Lilacs; also Asparagus Roots.

All orders will receive prompt attention. Address

A. D. PRYAL,
26v4tf Oakland, Alameda County, Cal.

Mulberry Trees for Sale

— BY —

I. N. HOAG, Sacramento.

THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

For the Yard, for the Sidewalk, or the Roadside.

— ALSO —

Fruiting Mulberry,

Of all varieties, and for Silk Culture.

ALSO, FRUIT, SHADE AND ORNAMENTAL TREES,

Of every kind—grown in the best Nurseries in the State—for sale at the Lowest Prices.

Also, OSAGE ORANGE HEDGE PLANTS.

All orders promptly attended to. 26v4-3m

Grape Vines and Cuttings for Sale

—AT THE—

Vineland Vineyards,

NAPA COUNTY,.....CAL

The undersigned can furnish Grape Cuttings of the Choicest Varieties of Wine and Table Grapes.

Many of the Choicest Wine Grapes can be furnished in large quantities, at from $5 to $7 per thousand.

Rooted Vines, $2 per hundred or $15 per thousand, delivered at the Railroad Station.

Send all orders in early to

J. LEWELLING,
St. Helena, Napa County, Cal.
24v4-2m

PLANTS! PLANTS!

60,000 Evergreen and Flowering Shrubs

AT GREATLY REDUCED RATES.

Those intending to embellish their grounds will find it to their advantage to examine my stock and ascertain prices.

DAVID NEELEY,
Golden Gate Nursery, corner of Folsom and Twentieth Streets, San Francisco.
25v4-3m

Fruit, Shade and Ornamental

EVERGREEN TREES AND

Plants for Sale,

At the old stand, corner Oregon and Battery streets, Directly opposite Post Office, SAN FRANCISCO.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants

Ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

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Promptly attended to and packed with care.
Send for Price Catalogue.

AGENT FOR B. S. FOX'S NURSERIES, SAN JOSE.

Address THOMAS MEHERIN,
516 Battery Street,
SAN FRANCISCO.
P. O. Box 722. 25v4-2m

500,000
Fruit, Shade and Ornamental Trees, Plants, Etc.

FOR SALE AT THE

CAPITAL NURSERIES, SACRAMENTO.

Having a very large Nursery Stock, I can furnish Trees and Plants of all kinds cheap. Fruits guaranteed true to name. Send stamp for printed Price List, Catalogue, and instructions for hedge-growing. A large stock of Osags Orange Hedge Plants for sale. Letters of enquiry promptly responded to. Office and MAIN Tree Depot, U street, between Fifteenth and Sixteenth, Sacramento. Branch Yards, Sayles & Williamson, J street, Sacramento; Burney & Williamson, Modesto; and W. T. Wright, Agent at Colusa.

ROBERT WILLIAMSON,
25v4-3m Proprietor.

PACIFIC NURSERY,

Presidio Road, near U. S. Reservation (on the line of the Sutter street Cars), SAN FRANCISCO.

A Large and Well Selected Stock of New and Rare Plants for the

Greenhouse and Open Air.

FLOWERING AND ORNAMENTAL FOLIAGE PLANTS AND SHRUBS,

Evergreen Trees, Geraniums, Pelargoniums, Roses, Fuschias, Pinks, Gladiolas, Lilies, Coleus, Pansies, Primroses, in great variety. Also, Tuberroses, Verbenas, Cactus, Heliotropes, etc.

Orders from the country carefully attended to.

Address, through P. O.,
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1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

Send us your address and get our Descriptive Catalogues and Price Lists. Address

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Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

Address JAS. T. STRATTON,
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Eddy street, corner Powell and Market, San Francisco. Bouquets and Ornamented Flower Baskets. Plants in great variety.
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NEAR OAKLAND.

260 Acres, situated about four miles northeast of the City Hall, Oakland, and just above Fruit Vale, in Brooklyn Township. One hundred acres or more have been tilled. The whole is favorably located and well suited for a milkman's dairy. The dwelling house contains eight rooms, hard finished. Barn, 40x100 feet. It is bountifully supplied with sweet spring water, besides being watered by several creeks. There is also a fine sulphur spring, with a large and constant flow of mineral water.

A STONE QUARRY

Of well proved quality will be sold with the balance of the place if desired. It possesses special natural advantages superior to any other tract of land within the same distance from San Francisco and Oakland. The title is perfect, and the place has been in the possession of its present occupant for 12 years. Will be sold at a low price. Part of the purchase money can remain on security. The property should be seen to be appreciated. Apply to A. T. DEWEY, 338 Montgomery st., S. F., or to GEO. W. THOMPSON, on the premises.

THE PACIFIC RURAL PRESS.

A Call upon the Pacific Rural Press.—While at San Francisco we availed ourselves of the privilege of dropping in upon our friends of the Pacific Rural Press, one of our most welcomed weekly exchanges. The firm of Dewey & Co. has become a household word throughout the State, from the dignified and valuable character of their publications. These publications aim to meet the varied interests of California, and we are glad to know that they are all being sustained generously. During our trip through the State we met at nearly every point one or other of their issues.

Besides the Rural Press, they publish the Scientific Press, which ably serves the mining and other industrial interests of the district.

Recently they have added a monthly sixteen-page newspaper of special interest to wholesale and retail tradesmen, called the Pacific Coast Mercantile Director.

In all these enterprises we wish our friends abundant success, and we shall long remember their cordial greeting extended a stray editor sojourning a day or two in their beautiful city.—*Philadelphia Journal of the Farm.*

ARCHITECT J. J. NEWSOM No 430 MONTGOMERY St S.F.

THE
PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by Dewey & Co., Rural Press office, for $1.75, or sent postage paid for $2.00.

TO FARMERS AND RANCHMEN.

Improve the Breed and increase the Size of your

TURKEYS.

Try the Cross of the Bronze Turkey

WITH YOUR COMMON STOCK.

I am breeding from Fowls weighing 64 pounds to the pair, and have for sale a few Gobblers and Pairs.
Orders for Eggs received now.

One Bronze Gobbler running with ordinary Hens will make a difference of weight in a brood of 12 young Turkeys, eight months old, of five pounds each—that is, 60 pounds or 25 per cent.—making 15 in increased weight.

This breed of Bronze Turkey is remarkable for its hardiness as well as great size.

Give them a Trial. Perfect Satisfaction Guaranteed.

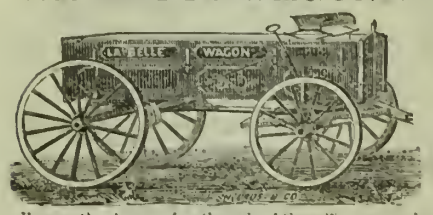
☞ Send for a Circular to

GEO. B. BAYLEY,

Importer and Breeder of Choice Fowls,

ja4-2t Box 659 San Francisco.

LA BELLE WAGONS.



Having the Agency for the sale of these Wagons, made at Fond du Lac, Wis., by Farnsworth Bros., Knapp & Co., we are prepared to furnish them, single or in any number, light medium or heavy 2-horse and 4-horse Thimble-skeins and boxes, and warrant them to stand well, and to be equal in all respects to the best Eastern-made Wagons sold here.

Orders from the Country will receive prompt attention, and Price Lists sent on application.

MEEKER, JAMES & CO.,

S. E. Cor. California and Davis streets, San Francisco.
Address P. O Box 654, only. 1v5-1m

THE SANTA BARBARA PRESS,

AN INDEPENDENT NEWSPAPER,

Devoted to the Interests of Southern California.

J. A. JOHNSON, Editor and Proprietor.

As the charming character of Southern California, and more especially that most favored section called Santa Barbara, becomes known to the world, it is not surprising that a widespread and growing interest in this region should be awakened. It is the constant aim of the Press to furnish perfectly reliable information on all points of interest to tourists, invalids and home-seekers, which we are now able to do with greatly increased facilities. While the Press seeks to promote the prosperity of all Southern California by all legitimate and honorable methods, it is more directly interested in the growth and coming greatness of Santa Barbara. The unequalled loveliness of the climate, its almost incredible healthfulness, the beauty of the scenery, the wondrous variety and fertility of the soil, the almost unlimited range of products which flourish there without irrigation, will be made known by facts which cannot be controverted, in the columns of the Press, from time to time. Any intelligent person can become familiar with this part of the State by reading the Press for a year.

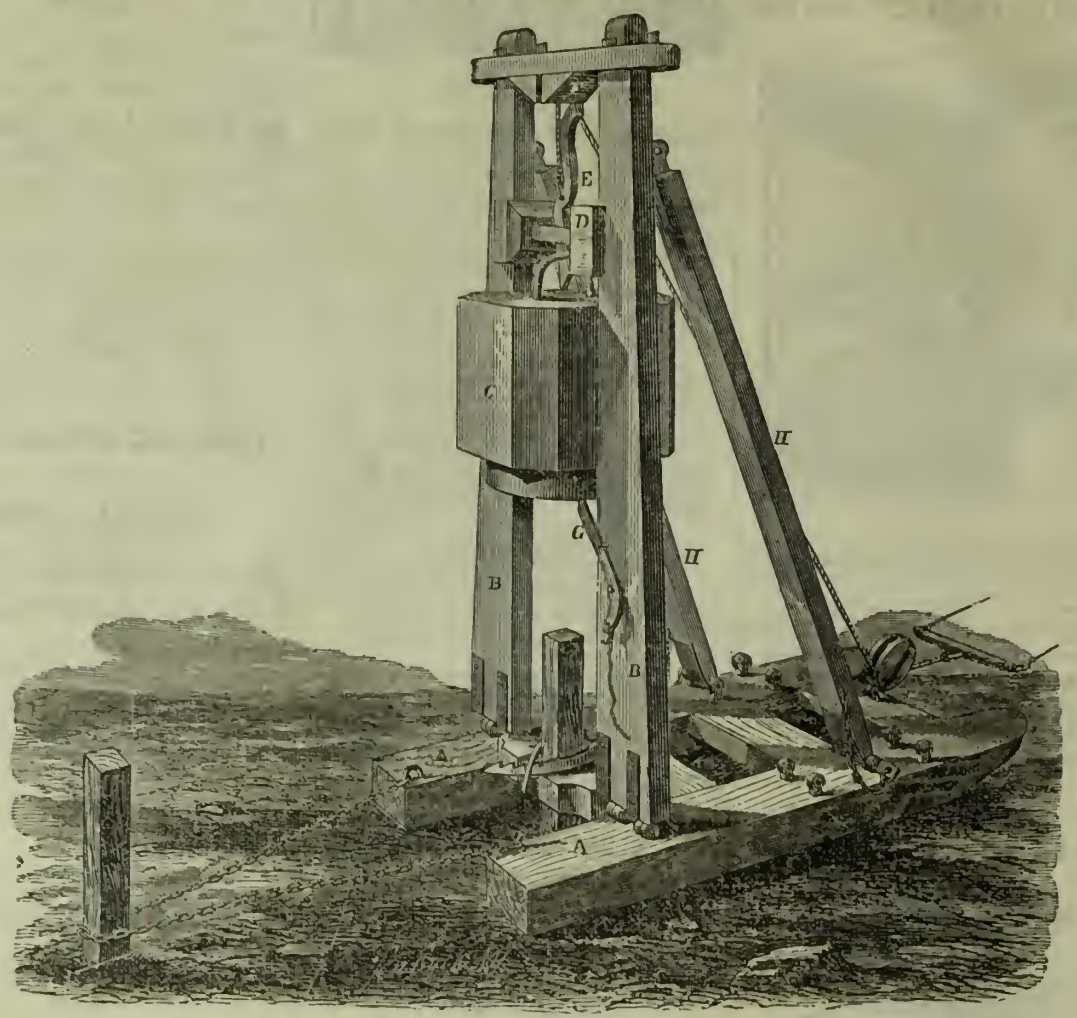
Terms of the Daily, per annum.....$6 00
Terms of the Weekly, per annum.....$4 50

Currency and Post Office Money Orders taken at par.

W. E. Loomis, L. P. Fisher and Thos. Boyce, San Francisco, are authorized to receive subscriptions to the Press.

A Word to Advertisers.—As a simple matter of fact, without a word of brag, it is claimed that the Santa Barbara Press has a much larger circulation than any other newspaper in Southern California, and is mainly read by the more thrifty families of that part of the State, and its advantages to advertisers are obvious. Our rates are moderate, and within the reach of every man who has a business worth advertising. L. P. Fisher and Thos. Boyce are our advertising agents for San Francisco, though we always prefer to deal directly with advertisers. Address simply Press, Santa Barbara, California. hplt

FENCE POST DRIVER.



This machine is built on runners, so as to be easily drawn from place to place. It is so constructed that it is readily adapted to hilly or level ground. A man and boy, with one horse, can drive one hundred and fifty posts per day. The machine is very simple; can be built at any blacksmith shop. We have circulars printed giving the exact size of each piece, from which any one can build the machine. It is meeting with great success at the East, and we have no doubt it will be appreciated by the farmers of this coast. We shall be pleased to confer with any one interested. If convenient, call at our office and witness the machine in operation.

WIESTER & CO.,

17 New Montgomery street (Grand Hotel Building), San Francisco.

HAVE YOU A FARM
FOR SALE,
TO RENT,
OR ON SHARES?

The CALIFORNIA LABOR AND EMPLOYMENT Exchange, having ample opportunities to dispose of farms or business places to the many immigrants who daily arrive in California, and whose first steps are invariably directed toward this institution, has opened a Land Department in connection with its Labor and Employment office.

Parties having farms or business places for sale will do well to send the fullest particulars to

California Labor & Employment Exchange,

637 CLAY STREET,

San Francisco.

"Male and Female Labor sent to all parts of the country." 17v4-2am3m

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PEERLESS POTATOES.

A small lot of PEERLESS POTATOES for sale at $1.00 per pound, which the undersigned will forward to any address, by mail or express, prepaid.

E. H. FRICK,

ja4-1m Pleasanton, Alameda County, Cal.

TREES
SEEDS
NUTS

Price List of Tree Seeds ready now. Sent to any address on receipt of stamps. Neat, Petite, Complete. Contains brief directions for treating Fruit, Evergreen & Forest Seeds. Retail Nursery Price List free. Whole sale to Trade only. Send $1.50 for Bryant's "Forest Trees," best book on Tree Culture. Address A. Bryant, Jr., Bryant's Nurseries, Princeton, Ill.

CALIFORNIA VINE GROWERS
—AND—
Wine and Brandy Manufacturers'
ASSOCIATION.

Will meet in Masonic Hall, corner K and Sixth streets, Sacramento, Wednesday, January 15th, 1873, at 2 o'clock P. M.

Duplicates of Wines and Brandies exhibited at last Fair will be examined, the Premiums then awarded announced and paid, the Premium List for next year agreed on, provision made for exhibition of our grape products at Vienna, steps taken to secure proper reduction of National Taxes, Essays read on various subjects of interest to the industry, and such other business as may come before the meeting transacted. The meeting will be continued from day to day so long as necessary. By order.

ja4-2t I. N. HOAG, Secretary.

Kelsey's Nurseries,

OAKLAND,

Alameda County,.....Cal.

CITY DEPOT, 615 BATTERY STREET,

San Francisco.

[Established in 1852.]

Containing the Largest and Best Assorted Stock of

Trees and Plants

On the Pacific Coast.

Embracing—FRUIT TREES AND PLANTS of all and every kind, SHADE AND FOREST TREES, EVERGREEN AND ORNAMENTAL TREES AND PLANTS, FLOWERING SHRUBS, HOT HOUSE AND BEDDING PLANTS, BULBS, Etc. Etc.

Send for Catalogues and Price Lists—Free on Application. 1v5-3m

Bay Nursery,

[Established 1852.] OAKLAND, CAL.

Office and Depot.....Broadway and Thirteenth.
Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Coast. Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarias, Weeping Cedars, Golden Arbor Vitæ, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rare merit. Tube Roses, Dahlias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m JAMES HUTCHISON.

Purchasers please say advertised in Pacific Rural Press.

THE PACIFIC RURAL PRESS has the largest circulation of any weekly journal published west of the Rocky Mountains, independent of a daily issue. Its readers are prominent among the most intelligent, industrious and thrifty classes throughout the Pacific States and Territories.

FRESH GARDEN SEEDS.

ALSO,

Grass and Clover Seeds

ALFALFA.

Trees, Plants, Roots, Etc.,

For Sale at Wholesale or Retail by

GEO. F. SILVESTER,

No. 317 Washington Street,

☞ Send for a Catalogue.

GUANO.

100 Barrels Guano for Sale,

In quantities to suit purchasers.

6v2-1y-16p GEO. F. SILVESTER.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all part of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county, California
5v3-tf

100 YEAR ALMANAC. FOR 50 CENTS we send, post-paid, an Almanac giving every Year, Month, Week and Day of the Centurigents. Also a Pocket Calendar for 1873. Extra inducements to CO., Boston, Mass. Address GEORGE A. HE[illegible]
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PACIFIC RURAL PRESS

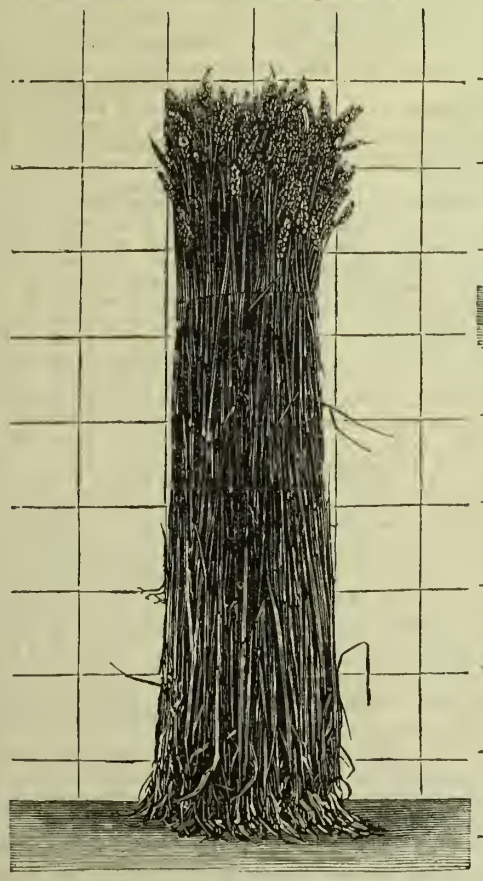
Volume V.] SAN FRANCISCO, SATURDAY, JANUARY 11, 1873. [Number 2.

Chemical Manures.

The immensity of the wheat crop of California will be continued as long as the seasons are propitions and the soil can be maintained to the proper standard of fertility; but repeated croppings with no return of fertilizers will eventually work the same injury to the soil and the product that the same management has produced in all ages and countries.

It is important in a country like California where the vastness of the area devoted to wheat precludes the possibility of keeping up the fertility of the same by animal manures that resort be had to those of a chemical nature, in which a man can almost carry the necessary annual fertilizers for an acre of land in a peck-basket.

Mineral Manure Without Nitrogenized Matter.



In France this condition of things has beeu approximately reached, and chemical manures are now as common and as necessary, and quite as serviceable, as barn yard manure to the soils of New York or New England.

In a valuable work entitled, "The School of Chemical Manures," by A. A. Fesquet, from the French of M. G. Ville a complete history of these manures, their preparation, their ingredients, mode of application and effects produced are given in detail, and are exceedingly interesting to those who entertain regard for the future of our wheat product.

We have not the room to give the constituents and the proportions required to make up a complete or perfect manure, but we intend to bring the subject to the atteution of wheat growers, that when the time shall arrive that something must be done, they may not despair of manuring their vast fields successfully.

After the long controversies of the opposite schools of nitrogenized manures *versus* mineral ones, and conversely, it is refreshing to find that they may be agreed upon the common platform—that every plant needs nitrogen as well as mineral substances for its food. This important result, as well as the ratioual manner of determining the natural fertility of the soil and the dominant substances for the food of plants, has been demonstrated by Professor Geo. Ville after thirty years of comparative experiments conducted in the field and in the laboratory, and checking each other. Moreover, at the present time, several hundred farmers in Europe follow the advice of the learned professor of vegetable physiology, and by tneir correspondence confirm the truth of his teachings.

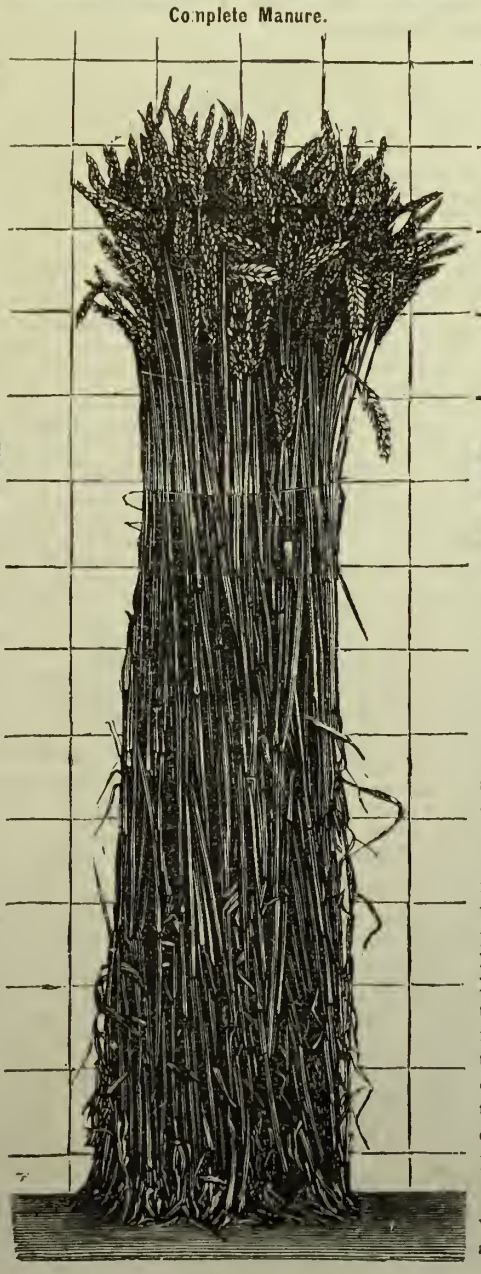
Chemical manures do not mean strange and unknown substances, new to the farmer; they simply include phosphorus, lime, potossa and nitrogen, that is to say, the useful substances found in any serviceable manure, compost, etc., from time immemorial. They are in a condensed form, nearly coustant in composition, and may be readily mixed in various proportions to suit the nature of the desired crop, or the degree of the natural fertility of the soil. Moreover, with them, the farmer will be less exposed to frauds than when he buys manures already mixed, which, too often, are but nondescript compounds.

Manuring with chemicals alone has been proved by Prof. Ville and his followers to be profitable; nevertheless, other manures and compounds may be used in connection with them, but their usefulness as plant food will be in the ratio of the phosphorus, lime, potassa and nitrogen which they contain in the soluble or available state.

Ground Without Manure.



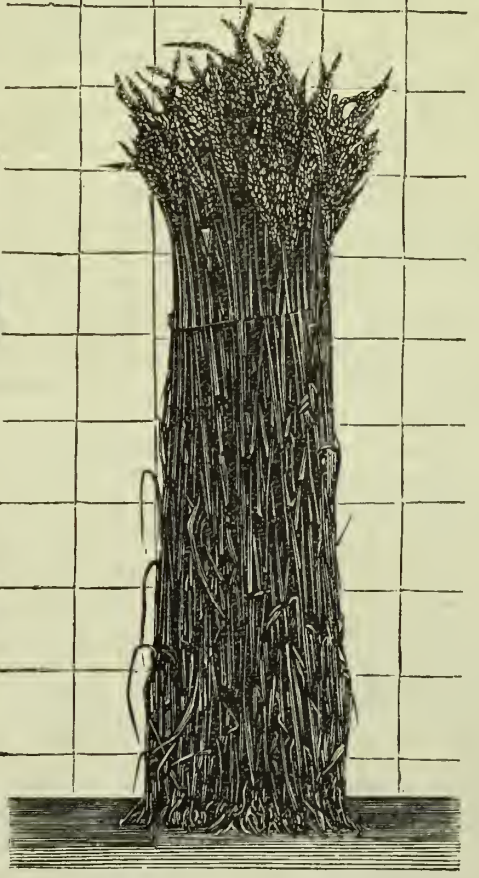
Complete Manure.



When once the farmer has arrived at a knowledge of the natural fertility of his farm by the aid of experimental fields, he will be able to compound his manures for each desired crop, without expending money for what is already in the soii, or omitting what is wanting. How much more desirable to do so, and to work with certainty, than to buy already mixed manures from the manufacturer, who, supposing that he is honest, can certainly know little, if anything, about the natural fertility of the soil, the previous manuring, or the rotation of crops on the farm of the purchaser.

In the engravings which we present are shown the relative effects of differently constituted mineral and nitrogenized manures upon the growth of wheat, in soils in all other respects precisely alike. Now if there is any object in raising four times the quantity of wheat on the same ground, with the same labor, and with only the addition of certain manures at reasonable cost, then will it pay to give attention to facts connected with the use of chemical manures as given in the little work to which we have alluded, and which is published by Henry Carey Baird, Industrial Publisher, 406 Walnut street, Philadelphia; price, $1.25, free of postage.

Nitrogenized Manure Without Minerals.



A special advantage pertaining to the use of chemical manures is, that they can be applied at anytime most convenient to the farmer, at seeding time, or any time during the winter or spring, previons to the last rains of the season and always with marked benefit; indeed, the effect of top dressing with chemical manures is most extraordinary. With ordinary barn yard manures such top dressing would be simply impossible, or if applied would often prove of little or no benefit, except to a succeeding crop; whilst the action of chemical manures is immediate. Farmers, whose lands are deteriorating under a too constant cropping with wheat, should give this subject a serious consideration.

Grape Cuttings.

Look out for spurious sorts at the hands of itinerant sellers. There is a demand for raisin grapes, and the cuttings from such vines are the only ones for which there will be likely any great demand. There are many large vineyardists that have any quantity of the very common Mission grape, a passable one for the table and for wine but wholly unsuitable for raisins.

Many have already contracted to furnish to the extent they are able of the more coveted varieties; and to supply the additional demand unscrupulous venders will hardly hesitate to palm off inferior varieties for the better sort; so that the proper and only sure way is to procure your cuttings from reliable men, advertising in the Rural Press, or others possessing entire responsibility.

Nothing can be more provoking than to give great care and attention for years to the culture of what you suppose to be a good variety of fruit, and then find on its first bearing, that you have been cheated out of your time, labor and fruit. One can hardly keep from feeling like expressing himself very emphatically towards the vender who has thus imposed upon him; nor could we blame him much if he did.

CORRESPONDENCE.

Logging on Puget Sound

Is a trade by itself, and a few of its tricks may be interesting to those readers of the PRESS who do a little log-rolling now and then.

Almost everywhere along the shores of the Sound you will find a boom of logs lying in a little cove, and not far away you will hear the sound of the chopper. Thus far they have been able to supply the mills with logs from points not far from tide water, and perhaps we should not convey an impression far from the truth in saying that for the twenty years they have been sawing there, they have only taken the timber half a mile back from the water. The Puget Sound Mill Co. has upwards of 200,000 acres of the best timber land which they have reserved, preferring for the present to buy logs.

Choosing a Claim

Is a matter of great importance, for one must consider not only the quality and amount of the timber, but must have the eye of an engineer to form an idea of the grades and the work necessary for road making, the safety and ease of the road as well as the quality and amount of the timber, are elements that enter into the calculation of profits. A logger can better afford to pay a stumpage of two dollars per thousand on some claims than to have others given him. Some conclude because others have made money at logging, that those who engage in that business are bound to win, but the record of such failures will show that minute knowledge and careful calculation are as important here as elsewhere.

The Crew

Consists of from 12 to 20 men and four or five yoke of cattle. With such a force of hands there has been as high as six million feet of logs taken out in a single season. Three million feet is a fair season's work for a crew of 15 hands.

The Swampers

Generally come first after the line of the road is chosen, to clear away the brush both for the main road and as the trees are chopped to clear away from each log to the main road. These are equipped with axes and bush hooks. Then comes the

Road-makers

Who grade the road, aiming to have a light down grade all the way to the water and to avoid any up grades or any steep places where logs will be apt to slide upon the cattle. When the road is graded they lay in the

Skids

Which are laid like railroad ties, half buried in the ground, but are twice as long, three times as far apart and are all made of hard wood and left round. In the summer time one hand goes ahead of the team each trip to sweep these sticks clean and oil them.

The Chopper

Must be a master of his business, for he is expected to fall as much timber as the team can draw out, and it is not uncommon for them to fall 15 or 16 hard wood trees in a day, that are from three to five feet through. They go above the large roots and cross grained wood to be found near the butt of the tree, and sometimes cut the stumps as high as 10 or 15 feet from the ground. They do all their chopping upon chopping boards, which are kept in place by notches cut 5 or 6 inches into the body of the tree. They use very light axes with short bits and long helves. They have one for the bark and another for the wood.

The Sawyer,

Like the chopper, is depended upon to keep the team busy. He carries his beetle, his wedges, axes and saw. It is his part to cut the trees into such logs as the team can handle. None should scale more than 3,000 feet and not as much unless there is a very good chance to get it to the road. The sawyer must use a great deal of care and judgement to avoid getting his saw pinched or his logs split where the tree lies upon rough ground. They often do not touch in more than two or three places. But the saw is the great perfection of crosscuts. He generally uses the Tuttle saw for fir logs, with teeth so coarse that the four which complete a set, occupy four inches on the blade. When the saw is filed the rakers are left nearly as long as the cutting teeth and then the point of the raker is swedged with a light hammer, so instead of presenting a square face to push out the chip, it cuts it out like a plane. The handle for the right hand is like the handles used on shovels and spades, and is set a little below the cutting edge of the saw, while that for the left hand extends up in the ordinary way. With these saws one man cuts as much timber as we have seen two cut in the east, and it is the experience of loggers that four men with one saw will cut as much as six men with two at each saw. One man uses a saw seven feet long, or more if the timber requires it.

The Barker

Has to chop the bark from one side of the log so that it will slip easily upon the skids and to chop off the end in the fashion of a sled-runner so that it will not catch upon anything.

The Teamster

Must be the first one up in the morning and the last one out at night and upon him rests the chief responsibility for the amount of work done as well as for the condition of the teams. He has four or five yoke of the largest cattle that can be had and plenty of barley hay from San Francisco to feed them on. They generally have a rough stable open at the sides. Each teamster has his assistant to fasten chains, help roll logs, and drive a part of the team when drawing small logs. To hitch to the logs, they have two chains, each six feet long, fastened to a ring in the main chain at one end and with a hook to drive into the log at the other. These were formerly made with a right angle but now are made with an acute angle, as that shape drives in easier and is not as liable to pull out. By fastening to a log in this way they are able to keep the smooth side always next the skids.

A late improvement in logging is the use of a tongue to prevent the logs sliding upon the cattle when moving upon down grades. This is attached by a spike driven into the end of the log and is only used for holding back. By this means some claims have been worked to a profit that were too rough to work without. Without the tongue logs have been known to slide and kill four cattle at once. In anticipation of such accidents, loggers generally aim to keep their cattle in condition for beef. Cattle have been sold the past season as high as $350 per yoke.

The Homes of the Loggers

Generally consist of two shanties hurriedly built; the one for cook house and dining hall and the other for sleeping apartments. Each man has his own blankets, (which he takes with him when he goes from one job to another) and his little bunk to put them in along the side of the room. They are arranged like "Standee bunks" in a ship. In the cook-house they generally get plenty of substantial food, but don't "go much on high-toned" displays of crockery and fancy dishes.

Wages

Have been fair for the past season. In this respect teamsters rank first, for as an old logger said to us, "You can't pay a good teamster too much nor a poor one to little." Seventy-five dollars per month is a fair price, but rather than let a first-rate teamster leave, they will sometimes pay ninety dollars. Next comes the choppers and sawyers who each get $60 to $75 per month. The rest get about $50 per month. The cook and teamster are employed the year around, but the others have to lose their time and pay board for the bad weather. They can just about make expenses during the winter months, they tell us.

The Amount of Timber per Acre

Is so great on some few claims as to astonish us, reaching away up beyond 300,000 feet upon some single acres. But it is a very fair timber claim that will average 40,000 feet per acre of such logs as they now think it worth while to cut. There is much left that is of a variety not in demand in market or that is hollow or injured by burning, or too large or too small. We think the main body of timber land in West Washington will be left to grow up to timber again as fast as one crop is taken off.

Prices of logs have been considered good the past season, ranging from $5 to $9 per M, according to average quality of timber and length. They are bought of the loggers generally by contract to be delivered at their camps and are towed away in booms by the steam tugs belonging to the milling companies that purchase them. The booms are made by enclosing an area of a quarter of an acre or thereabouts with logs fastened together at the ends and sliding logs in from the bank above until the boom is full. No trouble about rafting and in good weather no trouble to tow these booms fifty or a hundred miles to a mill anywhere on the sound.

Logging on Government Land

Has been somewhat hindered the past season by the many seizures that have taken place on account of Uncle Sam. It is a general understanding between loggers and mill companies that there shall be no competition at the government sales, and that the man who cuts the logs shall have a chance to bid them in at what is considered a fair stumpage and so get pay for his labor. This accounts for the acts of public sales, which we often see noticed at 50c.@90c. per thousand when logs are worth ten times as much. Loggers cut them when they feel sure that they will be seized and sold.

How Long will the Timber Last?

Is a question easier asked than answered. In a few years they will begin to run cars back into the timber to draw the logs to the water. They will probably use narrow-gauge railways with mules for locomotives. It is supposed that one team of mules will be able to draw as much timber as a logging team can get to the railway, where the distance by rail is not more than a mile or so. When this becomes necessary the price of logs must rise to pay the cost of hauling the extra distance by rail.

If they have gone back from the water half a mile in twenty years you can take the map and reckon for yourself how many years it will take to use up all the timber. Remember that the timber is said to be better a distance back from the water, and that the land already cut over is left to grow up again. On the other hand an increasing population is extending the demand for lumber, and other countries are depending more and more upon our supply. Would it be too much for us to reckon upon a timber-crop from Puget Sound once in a hundred years?

From Our Traveling Correspondent.

Ashland is a town on the stage line between Jacksonville and Yreka, and is a model place in more respects than one. Shut off by its mountain ranges to the north and the south from communication with the outside world, it is a place of home manufactures. There is to be found the woolen mill, the grist mill and the sawmill, and as if to be prepared for death as well as life, she has her tombstones of home manufacture and of native marble.

The Ashland Academy

Is the only institution of learning above a common school within a radius of a hundred and five miles. The building was started in the usual method, by contributions, under direction of a board of trustees, but was finally transferred to Mr. J. H. Skidmore as a private enterprise. He is an experienced and efficient teacher, and employs three assistants. Music and drawing are taught, and their school furniture and pianos will compare well with institutions of like grade anywhere.

The institution finished its first term with 150 pupils. The pupils seem disposed to make the most of their advantages, and we are informed that there has been no occasion for any discipline yet. It would almost be worth while to build mountains around every school house if that would secure such results. However, we shall not recommend such an experiment until thoroughly satisfied that this pleasant state of things is to continue. Ashland has a model post office, and appears to be the banner town of all that we have visited in regard to liquor drinking. We don't think they have enough whiskey to wash down their war stories with.

Percheron Horses

Are to be found nowhere else on the Coast. We have often heard in the columns of the PRESS of the famous horses of

Wm. C. Meyers,

And a few notes of his career as a breeder may not come amiss. He has been a horseman all his life, and since '62 has been breeding for large sized horses of good action, and hardy constitution. He brought a stallion from Ohio weighing 1,440 pounds that trotted a mile in 2.42. His colts were a fair type of the sire. In '64 Mr. Myers took 7 premiums at the Oregon State Fair, and in '65 he took 14. Next year he went to the State Fair in California, and took the 1st premium for the best six colts and for the best draft colt. Soon after this he thought he would take the 200 horses he had on hand and go east. They would sell for enough to give him a good start and he would find a better location. The horses suffered from change of climate, and he was obliged to hurry them off at a public sale. In advertising this he paid $200 for printers' ink, and found it an excellent investment. While looking for a new location, he found the very kind of horses he had been trying to breed, but after spending a great deal of time in looking for a better situation, both in the Western and Pacific States, he returned and bought the farm adjoining the one he left.

In Dec., 1870, he imported White Prince, Doll and Maggie, from Union County, Ohio. The first-named are thoroughbred Percherons and the last ¾-grade. The reception that these horses met with satisfied him that he was not supplied, and in Feb., 1872, he imported the beautiful dapple-gray, Napoleon, from Hon. N. J. Parrott, of Leavenworth, Kansas. These horses are all looking well, but Mr. Myers thinks, with the majority of good breeders, that it is a mistake to keep breeding animals in a starved condition. The appearance of the horses justifies the remarkable stories that we have heard of their speed and endurance under heavy loads in France.

We should judge that the average weight of this breed of horses in working condition was about 1,600 lbs. for the horses and 1,400 lbs. for the mares.

Breaking the Colts,

During the first summer, is one of Mr. Myers' peculiarities. He has a nice sulky with a pole to drive a span, and its very appearance is enough to bewitch a horse-loving boy. By making the acquaintance of his colts early and constantly handling them, they become noted for their mild dispositions. Some of the colts are worthy of special mention.

TEMPEST.—Foaled in March, 1872, is a full Percheron, from White Prince and Doll. He will weigh 800 lbs., and is a colt of promise.

MAY.—Foaled in May, 1872, is ⅞-Percheron, and weighs 600 lbs.

LOUISA.—Foaled in April, 1871, from full-blood Percheron mare and imported English draft horse; girts 6 ft. 8 in., is 5 ft. 6 in. long, and weighs 1,300 lbs.

RELIANCE.—A black stallion, foaled in May, 1871, is from a ¾-Percheron mare and imported English draft horse; weight, 1,200 lbs.

There is a poor-looking "kuss" of a mare running about the yard, which, if sold in her prime for forty dollars, would have been well sold; she has a half-breed Percheron colt which bids fair to make a horse weighing 1,300 lbs. to 1,400 lbs., and worth at least $200.

The fact that the Percherons have been so long bred in France as a distinct breed for business purposes, gives them great value for producing grade animals. This is the real basis upon which the high value of any thoroughbred stock must finally rest.

Mr. Myers has a herd of five Jersey cattle, that will be recorded in the next Herd Book.

The Ashlanders of Long Ago

Were a mighty race, judging from the geological remains exhumed from the gravel mines. Mr. H. E. Rockfellow has a piece of a mammoth's tusk which is five feet long and ten inches in diameter. It does not appear to have been more than half of the original tusk. He has three teeth of various lengths and each of them four inches wide on the grinding face. These remains were found in hydraulic mining in a gulch wash of gravel four feet from the bed-rock.

Ventura County.

EDS. PRESS:—Leaving the old mission of San Buena Ventura on the 21st, our course is northeast up the stream of the same name. The first mile or more is a staight road through the outskirts of the village with one-quarter of a mile of bottom land on the south side of the stream—for it is a verritable water course, this San Buena Ventura—with good water running all the way to the ocean all the year around, in this respect almost an exceptional case in Southern California.

Seven miles from town, in a sequestered nook and almost hidden in the embowering foliage of the live oak, sycamore and willow, is the residence of Thos. R. Bard. The surroundings and choice of location indicate that the owner is a person of taste and culture; and of course a reader of the RURAL.

Adjoining Mr. Bard's, on the north side of the stream, is the estate of Don Jose de Arnaz, some 6,000 acres of hill, valley and woodland, 2,500 acres of which is cultivated land. The Don lives in primitive style and speaks no English—subsisting off the product of his flocks. Surrounded on all sides by the encroaching Anglo Saxon, it is not strange that he is dissatisfied and wants to sell—demands $16,000. So pass away the old "patrones;" the $16,000 is probably only enough to cover the mortgage and leave a modicum to go to less ample quarters with.

As long as any of the simple original possessors have a foot of soil, the traders will sell them goods, and when the bill is getting too large take a mortgage. That is the River Styx to them financially, and is never recrossed. The mortgage is seldom redeemed, and the broad acres go to Shylock.

Seven miles above Mr. Bard's the valley widens out to a mile or more in width and four or five in length, and is called the Ojai (pronounced "Ohi") Rancho, a beautiful and picturesque locality surrounded on all sides by hills and lofty mountains that tower above the clouds. This morning, after a most refreshing rain in the night (¼ inch of water fell) the tops of the peaks to the north and east appeared above a stratum of clouds that seemed to be half a mile in thickness, though it may not be over a thousand feet. The valley is far enough from the ocean to be free from the coast fogs, and of sufficient altitude (900 feet,) for the atmosphere to be comparatively pure.

There is sufficient land in this and adjacent valleys to make comfortable homes for thousands, and no doubt will in time be densely populated, for water is abundant and good timber plenty, the soil productive and climate just bracing and frosty enough to prevent lassitude. All the hardier fruits, such as apples, peaches, grapes, etc., thrive. All that is lacking is people, good people, with money to buy the land at $15 per acre without any improvement—fifteen dollars cash and no grumbling, or will take a mortage and let a part go unpaid. But at the risk of offending the speculator we advise no one to buy land on time, with the expectation of making it off the land.

There are four families in the upper or main valley of the Ojai and eight in the upper or Rancho Viego. The importance of altitude has no better exemplification in its effect upon diseases of the lungs and throat than is to be found in passing from the sea coast to this upper valley; altitude, 13,000 feet, or 400 feet higher than the lower valley. The cases that have been immediately and permanently relieved by coming from the town to the first or 900 foot elevation are quite marked, but still more decidedly so in the 13,000 foot altitude.

But the wretched money grabbers about the towns endeavor to persuade invalids to dawdle about the vicinity of the petty marts of commerce, and waste their small remaining fund of vitality as well as their cash, many times until it is too late to go anywhere but to the cemetery—while the commonest dictates of humanity, it would seem, should suggest the immediate hurrying them away to the mountains. The superior dryness and purity of the atmosphere in these upper valleys must bring them into requisition soon as homes for invalids from all parts of the world. There is no doubt of the superiority of the climate of Southern California over any other known locality upon earth.

F. M. SHAW.

Ojai, Ventura county, Dec. 24th, 1872.

Stock Breeding.

Value of Merino Sheep.

EDITORS RURAL PRESS:—One hundred young thoroughbred merino ewes at a cost of $75 per head, properly cared for will yield a net profit of $3,390 per year.

100 sheep at $75 per head, cost	$7,500
Interest on $7,500 at 10 per cent	750
Natural loss	150
Cost of shearing	30
Cost of herding	50
10 acres alfalfa land will easily keep them, say it is worth $50 per acre, will cost	500
Interest on same, 10 per cent	50
Expenses of keeping up fences and taxes	20
Total	$1,050

CONTRA.

Increase 90 per cent. would naturally be 45 ewe lambs, and 45 buck lambs.

45 ewe lambs at $40 per head	$1,800
45 buck lambs, at $50 per head	2,250
Wool from 100 sheep 1,300 lbs. 30 cents per pound	390
Total	$4,440
Less total expenses	1,050
Net profit	$3,390

This estimate is based upon the market value of choice young ewes as sold and offered for sale by Severance & Peet, and what makes it more fair the increase is marked 50 per cent. below the market value of the same stock to-day, and the average price here and in the East for the past 10 years has been 20 per cent. above the foregoing estimate, and it is safe to say that the future prospects for extra fine stock of all kinds, and especially sheep is quite as flattering to-day as it ever has been.

It is a demonstrated fact that by crossing a first-class Spanish merino buck, with grade ewes, say an average of most large bands in this State, the weight of fleece may be increased 50 per cent. and even 100 per cent. in five years, and this fact explains how $100 and $200 can be paid for rams, and principal and interest returned to their owners so soon. Take 300 grade ewes, shearing an average of five pounds per head, would give a yield of 1,500 pounds, worth say 30 cents per pound, gives the owner a gross income of $450.

The first cross with a choice ram will yield 7 pounds per head, or 600 pounds extra wool which costs nothing except what is paid extra for the ram; 600 pounds at 30 cents gives their owner $180, actual profit which pays for the ram. Besides this the increase are worth 60 cents per head more to keep for wool which will give the owner $180 profit per year. The next cross will not of course be so marked, but will in ordinary cases amount to 50 per cent. of the first in ratio of increase, which would in a few years bring the flock up to an average weight of 10 pounds per head.

The thoroughbred Spanish Merino grow a greater a number of fibres to the square iuch, of the same quality and length of staple, than any sheep in the known world, and shear more pounds of wool same weight of carcass and same feed than any other breed: we instance Young Eureka's sire and grand sire, that sheared 25 pounds per year each. S. & P.

We give place to the foregoing for the information it contains, quite apart from any merit it may possess as an advertisement for S. & P.

Stock Breeding in California.

The Sacramento *Union* of a late date said: "It cannot fail to attract the attention that, while our State Fair this year shows very little if any improvement over last in thoroughbred horses, there is a most marked improvement in the show of fine cattle, and more of them on exhibition than ever before. It is also noteworthy that the people who come here to see the Fair were much more enthusiastic over the cattle show than usual. The crowds who rushed to the morning parade of stock were nearly as large as those attending the races. The fact is, more of our good farmers are giving close attention to breeding of neat cattle than of horses, and the climate is as good for the one as the other. Besides, the cattle business is the most profitable.

A thoroughbred horse at three years old is well sold at $400 to $500, unless his racing record stands high. The cost of such an animal is at least half his market value. A first-rate Durham heifer or bull calf at one year old is worth from $400 to $1,000, and the cost of raising it to that age is comparatively nothiug. A whole herd of cattle can be kept for not much more than it costs to keep one or two race-horsses. The profits of the horse are uncertain; of the herd of cattle they can be as surely reckoned beforehand as the value of the wheat or grape crop.

We do not disparage the bnsiness of cultivating thoroughbred horses for the turf. They have their excellent uses, and it is an honorable business, indicative of a high-toned and enterprising people. But no one need be put to the trouble of argument to prove that the cultivation of superior breeds of cattle is more profitable and advantageous to the State, and more assuring as to the true progress of our farming interests. We have been cultivating running stock with much care ever since 1859, but we are yet a good many steps behind the Eastern States. We have only of late years paid any considerable attention to the breeding of fine cattle, and our show in that line this year is robably the very best in the United States."

Raising Horses.

The severe work to which young horses are often subjected is the chief cause of thepresent great liability to disease. If they were well fed, and allowed to mature their constitution before being trained, they would, iu all probability, remain sound for a considerable time. Horses should roam at large till they reach their fourth year or until suoh time as humanity, and a due regard to the soundness of the animals, would point out as the proper period for putting them to work.

The system of crossing which has been adopted since the iutroductiion of thoroughbred stallions, appears to be a further cause of the degeneration of stock. Let his shape and qualities be good, bad or indifferent, the horse which possesses a sprinkling of blood is sure to be the animal which will be selected as a sire. His light action, showy appearar ce and high-sounding pedigree will be a sufficient recommendation to those who are ignorant of the various points and qualities which are connected with the strength, substance, durability, and disposition of the horse. Besides the same horse is certain to be put to a great number of mares of all sorts, shapes and sizes, without the slightest regard to adaptation of form and size of dam. which is absolutely necessary in order to procure a satisfactory result. Breeding from blood-stallions is highly commendable, provided it is done with judgment and discretion; but the practice of violent crossing is directly objectionable, and cannot be too strongly condemned. Extremes in crossing are very rarely successful; and it is really astonishing to see farmers constantly pntting their complete cart mares to thoronghbred horses, expecting to have foals of a class fit for fast work, whereas nine times out of ten they are fit neither for slow nor fast work.

By the practice here referred to, breeders expect to produce a horse combining both streugth and action; but they are frequently treated to an animal of such a nondescript form that he is fit "neither for the land nor the sea." In place of being a fair medium between sire and dam, he will take chiefly after the one in some parts, while in other places he will lean entirely to the opposite side, and he is consequently so badly balanced and proportioned that he is comparatively useless. His temper, moreover, is frequently characterized by a want of conformity to the purposes for which his owner might think him in other respects best adapted.—*Prairie Farmer.*

Rule of Law as to Unsoundness of the Horse.

There has been much discussion upon this subject and many rules laid down as to what constitutes unsoundness in horses. Mr. Youatt, in his work on "The Horse," gives the following rule:—"The horse is unsound that labors under disease or has some alteration of structure which does interfere or is likely to intere with his natural usefulness, The term 'natural usefulness' must be borne in mind. One horse may possess great speed, but is soon knocked up; another will work all day, but can not be got beyond a snail's pace; a third, with a heavy forehead, is liable to stumble, and is continually putting to hazard the neck of his rider; another, with an irritable constitution, and a loose, washy form, loses his appetite and begius to scour if a littld extra work is exacted from him. The term unsoundness must not be applied to either of these; it would be opening far too wide a door to disputation and endless wrangling. The buyer can discern, or ought to know, whether the form of the horse is that which will render him likely to suit his purpose, and he should try him sufficiently to ascertain his natural strength, endurance, and manner of going."

The above definition of Mr. Youatt is not broad enough. It will be observed that any alteration of structure from accident is not comprehended in it as it should be. In the leading English case upon this subject, it was distinctly held that the disqualification for work which renders a horse unsound, may arise *either* from disease or *accident.*

The late Professor Coleman says that "any deviation from nature is an unsoundness in a horse."

Mr. Chitty, in his work on contracts, lays down the following rule:—"The rule as to an unsoundness of a horse is, that if at the time of sale the horse has any disease which either actually does diminish the natural usefulness of the animal, so as to make him less capable of work of any description, or which in its ordinary progress will diminish the natnral usefulness of the animal; or if the horse has, either from *disease* or *accident*, undergone any alteration of structure that either actually does at the time, or in its ordinary effects wlll, diminish the natural nsefulness of the horse, such a horse is unsound."

LOOK TO YOUR JOURNALS.—A block of grain warehouses, including a large elevator, were recently destroyed by fire in Brooklyn, N. Y. The fire is supposed to have been caused by the over-heating of a journal box from friction. Loss, half a million of dollars.

Miscellaneous.

Electricity.

We are seemingly but little nearer a true solution of the nature of electricity now, than Franklin was a hundred years ago. Modern physicists have pretty generally concluded that it is only another form of motion, but this is only shifting the difficulty one step farther back; for who can define motion, or rather *force*, of which motion is the visible manifestation? Although we cannot define its nature, we are able to understand it far more fully, and to measure its effects and control its manifestations more snccessfully, than was thought to be possible at that earlier day. So many new terms have been introduced into this department of scientific research within a few years, that we think it may be of interest to our readers to define a few of these. The non-professional reader is sorely puzzled when he meets with such uncouth words as *volt*, *ohm*, and *farad*, or sees mention of primary and secondary currents.

The *primary* current is the current flowing directly from one element of a galvanic battery to the other.

The *secondary*, or *induced* current, is the current of electricity that is induced in a coil of insulated wire, when a magnet is suddenly introduced into its interior. It is also produced by revolving the armatures of electro-magnetic machines, by the Ruhmkorff coil, and in many other ways. Faraday was the first to study it.

Dynamic electricity is that produced by the galvanic battery, as manifested by the primary currrent. *Static* electricity is that produced by friction, and by the induced current in the Ruhmkorff coil. The two differ mainly in tension. By tension is understood the power of overcoming obstacles. Thus, static electricity will pass through the air for considerable distances, as is seen in the discharge of a Leyden jar, or a stroke of lightuing. But dynamic electricity is rarely produced of sufficiently high tension to pass through greater thickness of air than a fraction of an inch. The quantity of electricity that is concentrated into a single instantaneous flash in lightning is spread out over hours in the battery, and is consequently weakened in intensity, though the quantity remains the same.

A simple illustration may serve to make the differeuce more readily understood. If a ball of lead weighing ten pounds were dropped upon a man's head from a hight of sixteen feet, it would most likely injure him seriously. If, however, the ball of lead were converted into shot of a grain weight each, and these were allowed to fall in a continuous stream until the whole ten pounds had fallen, they would be scarcely noticed.

The standard of the resistance of bodies to the passage of electricity is called an *ohm*, from the name of the man who investigated the influence of resistances on electric currents. One ohm is equal to the resistance of 48.61 metres of pure copper or silver wire one millimetre in diameter, at the temperatnre of 65° F. When, therefore, a resistance of a thousand ohms is spoken of, we understand that a certain circuit opposes a resistance a thousand times as great as this to the flow of the current

The *volt* is the unit of tension, and is so called from Volta. It is about equal to the electromotive force produced by one Daniell's cell. Thus, two Daniell's cells coupled for intensity would have an electro-motive force equal to two volts. A Bunsen cell has an electro-motive force equal to about 1.8 volts.

A *farad*, so named from Faraday, who investigated the relations of electrical quntity, is the unit of cnrrent.

The question is often asked, How can a telegraph operator, sitting in his office, tell within a few feet where a break in the wire is, or rather where it makes a connection with the ground? The operator knows the resisanee of his wire per mile. Suppose, for instance, that it is fifty ohms. Now in the first place, he connects his battery with the wire, and also puts into the circuit a rheostat and a galvanometer. A rheostat is an instrument so consrncted that a greater or smaller amount of wire or resistance can be readily introduced into or removed from the circuit. Having adjusted the rheostat so that the needle of the galvanometer points to a certain division, the wire is removed from the circuit, connection being made directly with the rheostat and galvanometer, iustead of through the line and the earth. Suppose it is now found that more resistance must be introduced into the rheostat, in order to bring the needle to the same place; for instance, we have to introduce 500 ohms. The break must then be ten miles away; for the resistance of the earth is zero, and the additional resistance introduced must just equal that of the wire removed. In practice, the apparatns employed is a little more complicated than this, but the principle is the same.—*Boston Journal of Chemistry.*

RED LEAD GLASS UNFIT FOR INSULATION.—Prof. Henry Morton; in a recent lecture before the N. Y. Polytechnic Institute said that red lead, although one of the best of non-conductors, will render glass a very good conductor, if it enters into its composition. Such glass, which is usually of high refracting power, and therefore brilliant in appearance, is utterly unfit for purposese of insulation. This fact is of much importance to such as have to do with the oonstruction of electrical apparatus.

Metal Paper-Hangings.

Paper-hangings of tin-foil, a recent invention to which we have already allnded, seem to be gaining favor in Europe, and bid fair to secure a much more general use and wider application than was at first anticipated. *Chamber's Journal*, in alluding to this improvement, says:

The sheets are from 30 to 40 inches wide and about 16 inches long. They are painted and dried at a high temperature, and are then decorated with many different patterns, such as foliage, flowers, geometrical figures, imitation of wood, or landscapes. When decorated the sheets are varnished, and again dried, and are then ready for sale. Tin-foil is in itself naturally tough, and the coats laid upon it in preparing it for the market increase the toughness. The hanging of these metallic sheets is similar to paper-hangings, except that the wall is varnished with a weak kind of varnish, and the sheet applied thereto. Thus, in this way, a room or house may be newly painted, without any smell of paint to annoy or harm the inmates. Moreover, tin-foil keeps out damp, and as the varnish is a damp resister, the protection to the room is two-fold.

Experience has shown also that cornices, moldings and irregular surfaces may be covered with the tin-foil as readily as the flat surface; hence, there is no part of a dwelling house or public building which may not be decorated with these new sheets; and, as regards style and finish, all who saw the specimens exhibited at the reading of the paper were made aware that the highest artistic effects could be achieved at pleasure. The decoration of small tin plates for ornamental purposes has, we hear, been introduced into Cornwall—the county of tin. In this case, the color and pattern are printed on the plates by means of lithographic stones and rollers; but, to insure excellence and permanence, the plates must be heated. Difficulty was first experienced in keeping the plates at the required temperature, the upper part of the oven being always hotter than the lower; but it was overcome by fitting into the oven a vertical roundabout, which carried the plates from top to bottom of the oven during the whole process of heating. We think there are many purposes to which the plates could be applied beyond that of mere ornament.

THE SPECTROSCOPE.—A correspondent of the *Scientific American* says that notwithstanding the spectroscope is regarded by scientists as the most wonderful instrument of the age, and is doing more than all other instrumentalities today for the advancement of astronomical science, it does not tell the same story to all observers. The same light does not prove to be composed of the same substances when different men and instruments are employed, For example, to Prof. Young the corona seen during the eclipse of the sun is a permanent aurora, and deemed by him electrical in character; to Prof. Harkness the instrument suggests that the appearance is not in the nature of an electrical discharge, and its light not polarized, but that this mystical aureola of the source of light is incandescent hydrogen gas with vapor of iron.

RAINDROPS AND RAINBOWS.—According to Kolbe, the size of the drops in a rainstorm essentially modify the character of the rainbow that may be formed. He shows this by a squirting apparatus, which produces three kluds of drops simultaneously: the first, large and easily recognized as drops; the second, small, and whirling at first among each other, then falling in parallel directions to the ground; the third, very fine, and formiug thin clouds of spray, which rise in the air. In the last no trace of a rainbow can be observed, even in a darkened chamber into which a ray is admitted; the second kind gives a bow (blue and orange), distinctly visible, at a distance of three feet, but more distinct where the drops fall parallel than where they whirl together; the large drops give a bow with much livelier hues.

SELF-PURIFICATION OF FLOWING WATER.—Concerning the rapidity with which contaminations are got rid of by flowing water, Dr. Letheby asserts that sewage impurities will entirely disappear in a flow of a dozen miles. If, he says, ordinary sewage, containing say one hundred grains of solid matter to the gallon, of which solid matter probably something like fourteen or fifteen grains will be organic, be mixed with twenty times its bulk of ordinary river water, it will not contain, after a flow of ten or twelve miles, a particle of that sewage discoverable by any chemical process. Dr. Parkes also believes that flowing water thus purifies itself, but he does not undertake to say how far it must run to make the process of purification complete.

ORGANISMS IN CRYSTALLINE ROCKS.—Dr. Jenzsch, of Gotha, who has devoted himself for some years to microscopic lithology, announces than in various kinds of crystalline and volcanic rocks he has discovered minute animal forms in prodigious numbers in a fossil condition. Among them he finds infusoria aud rotiferæ intermingled with algæ, and he infers their formation in a large expanse of stagnant water.

SPECTRUM OF THE AURORA.—Vogel has determined that the spectrum of the aurora may with great probability be regarded as a modification of the air spectrum, the variability of the spectra of gases under different circumstances of temperature and pressure being well established.

Farmers in Council.

Important Meeting of the Board of Directors of the California Farmers' Union.

The Board of Directors of the California Farmers' Union held a special meeting January 3d, in the Committee room of the Mechanics' Institute. Those preseut were Gencral John Bidwell of Butte, President; J. R. Snyder of Sonoma, W. H. Ware of Santa Santa Clara, T. Hart Hyatt of Solano, Vice Presidents; A. T. Dewey, Treasurer; aud I. N. Hoag of Yolo, Secretary.

Address by General Bidwell.

The President, in calling the meeting together, said the meeting had for its object the devising of means by which the cost of moving and marketing the crops of the spproaching season might be reduced, thus enabling the farmer to realize a larger percentage of profit. The charges for sacks aud freight to a market at home or abroad were at the present time so great thst the farmer was scarcely remnuerated for his labor of production; and this state of things did not so mnch arise from natural causes as from the exorbitant exactions of those by whom the material for sscking, the money to move produce, and the means of transportation were provided. It was the interest and the duty of the farmers, by combineo action, by organization, by finsncial or political power and influence, to endeavor to protect themselves; to demand, exsct and enforce justice and common honesty from those with whom they deal. "In my opinion," he coutinued, "there is but one way for the farmers to succeed in the accomplishment of these objects, and that is

The Organization of Local Clubs,

And the steady support of the State Club in its efforts in their behalf. If the farmers in all portions of the State will come together and form local clubs, and put themselves in correspondence and business relations with the State Farmers' Uniou, in such a manner as to authorize the officers of this association to act for and bind them under necessary moral and financial obligations, in my opinion, the relief which they seek can be obtained, to a great degree at least, and industrial prosperity msy become general throughout the State.

But while the farmer remains aloof from his neighbors—while he continues to act ou the selfish individual policy—other classes, such as importers and manufactnrers of agricultural tools and implements, importers and manufacturers of sacks, common carriers, grain dealers, commission merchants and money loaners, will unite for the advancement of their own interests and ends, and will take nndue and unjust advantages of the farmer; will oppress, prey upon him, and eat out his substance, and continue to keep him poor and dependent. Farmers now, unorganized, are weak and in a great degree helpless, and they have but little courage to mske an effort to free themselves or better their condition; but

Let 100,000 Farmers of this State Unite Together,

And act as oue man, through an honest and reliable orgsnization, demauding only common justice, but exacting this to the last degree, and with a firm and united front, and there is no power in the land that can prevent the attainment of their just demands. The farming interests of the country need some wholesome legislatiou to place them on an equal footing with other occupations, and to relieve them from the exactions of heartless monopolies; and if farmers will but uuite to send the proper men to represent them in our legislative halls, both State and National, will see to it that our judicial and executive offices are filled with honest, efficient and reliable men, it will then be but sn easy matter to secure snch legislatiou and such constitntion and execution of the laws as their interests and the best interests of the State demand. For the purpose of emphasizing the idea, I repeat, and I wish I could sound it in the ears of every farmer in the State, the only salvation of the agricultural interests, the only safety to the individual interests of the farmer, is in union of interest and union of action.

Discussion by the Members.

Major J. R. Snyder, of Sonoma, delivered an address, in which he advocated greater care to be exercised, in the selectiou of County Supervisors, improvement in the public roads, the buildiug of warehouses at shipping points in the various counties, and the adoption of a coöperstive system of farmers' warehouses.

A communication from Mr. W. A. Fisher, President of the Napa County Club, was read by the Secretary. The writer expressed confidence in the Board of Directors, and suggested subjects for consideration. One of these wss the taxing of growing crops. This subject was also offered for consideration in a resolution of the Santa Clara Club, presented by Mr. W. H. Ware. Both communications were placed on file, and a committee was appointed, consisting of T. H. Hyatt, A. T. Dewey, and W. H. Ware, with instructions to report on the matter at the evening session.

The Board adjourned to meet at half-past seven.

Evening Proceedings.

Mr. T. H. Hyatt, reported the following resolutions as the result of the committee's deliberations:

Resolved, That it is the sense of this Board that the taxing of growing crops is unjust and oppressive, unfair in the extreme, and if legal, the law upon which such tax is based should be repealed; and we call upon the local clubs throughout the State to have this law abolished at the next session of the Legislature.

The resolution was unanimously adopted.

Secretary Hoag on ths Farmers' Position.

Mr. Hoag said that as Secretary of the Union he had corresponded with the several Clubs of the State, and had asked suggestions as to the matters which they desired the Union to set upou; but he found a geueral feeling that the State Club should lead the way and snggest modes of relief and the plans by which snch relief should be secured. They expected practical and tangible results, and until the Union, through its officers, showed itself competent to bring about such results for the benefit of the farmers, so that they could see and feel them in a financial way in their pockets, it was hardly to be expected that they would come forward with much alacrity to organize local Clubs or sustain the State organization.

He for one believed that with a little good business management immeuse benefit might be secured to the fsrmers, and that very soon. The first thing to secure was the certainty that the grain-growers of the State shall be furnished with the necessary sacks in which to move the crops of grain at the lowest possible figure.

The next was that the money necessary to harvest and market thst crop to good sdvsntage should be guarauteed to all the members of the Clnb at reasonable rstes of interest, upon their giving good security; and the third wss cheap transportation both within and outside the State, to whatever point it might become necessary to ship the grain. He would therefore offer the following resolutions, which, he believed, expressed the sentiments of the Board, and which would show that they were in earnest:

Resolved, That to promote their best interests, as well as the general good, the farmers throughout the State should at once orgsnize local Farmers' Clubs.

Second—That all clubs be requested to send to the Secretary of this Board at Sacramento a list of their officers and members, and their post office addresses, and that new clubs do so as soon as they may be organized.

Third—That, to secure sacks and the money necesssry to msrket, and move the coming harvest, as well as transportation, at the lowest possible figure, there should be on the psrt of the farmers early, general and earnest organization and coöperation.

Fourth—That the President and two other members of the Board, to be named by him, constitute a Committee on Finance, whose business it shall be to ascertain the best terms upon which sacks and necessary accommodations can be obtained, and to act in reference to the matter as their judgment may dictate.

These resolutions were adopted unanimously, and Mr. Dewey and Mr. Hoag were appointed on the Committee.

The meeting was then adjourned until Saturday eveuing.

The Committee reported good progress, and said thst definite answers would be obtained on Monday.

Authority was given the Secretary to issue a circular to the Clubs and farmers of the Stste, setting forth the advantages to be secnred by immediate organization, and perfecting business arrangements. It was resolved to call a special meeting of the Union, to meet in San Francisco, on Wednesday, the 9th of April next, st 2 o'clock, P. M.

A vote of thanks wss passed to the Mechsnics' Institute, for the use of the rooms, and the Board adjourned, to meet again on the call of the President.

Stanislaus Farmers' Club.

Eds. Rural Press.—Having the sack question up for consideration in our Club, we wonld like on some points information, which our inland sitnstion mskes it difficult to get at:

What is the manufacturing capacity of the mills in the State for the supply of sacks, and whst percentage did they supply? What is the tariff on imported sacks, or protection to the manufsctnrers? How much can the tsriff be reduced for the benefit of the farmers, and still let the manufactories run and live? At what price can the various Clubs subscribe for sacks to be furnished next harvest season?

Will the Oakland Club or the State Club—(if we have such an institution) make arrangements to receive sack orders from the inland Clubs, and order for us on good security, or receive lists for sacks and negotiate through some dealer to forward our demauds and furnish at the lowest per cent.; would not this be the best plan for the next season, as it is late now to effect and mature other plans?

How many sacks have been imported the past year? Hss the experiment been tried to ship wheat in bulk as they do East, and with what success? this is the great consideration for the farmer.

Respectfully,
Wm. Gallat, Secretary.

Dec. 28th, 1872.

The foregoing contains several very interesting and important queries, to which, it will require some little time to perfect answers. In the meantime we shall be pleased to hear from any who may be informed upon the subjects touched upon.

Santa Cruz Farmers' Club.

The Club met on Saturday afternoon, December 21st.

Mr. Locke, from the Committee on Unequal Assessments, made a majority report. Mr. Cshoon not being prepared to report, the whole subject wss lsid over to the next meeting.

Dr. Anderson, from the Committee on the "Horse Disease," presented the following report:

Report of the Committee on the Epizootic, affecting Horses on the Atlantic side of our Continent. Read before the Santa Cruz Farmers' Club, Dec. 21st, 1872.

From time to time we hear of some great disease traveling over the country with great rapidity. We are less fortunate if we hsppen to be in the track of that disease. We call such things epidemics, which means literally "upon the people." When affecting domestic animals it is called epizootic—"upon animals."

Thc disease so widespread in the States, east of the Rocky Mountains, among horses, is one of the epizootic kind. It is nndoubtedly meteoric in its origin. By meteoric we mean something that exists in space, perhaps independent of the earth's influence. This horse disease commenced in the northesstern part of the United States, and hss pnrsued a regular course toward the sonthwest. Such is the character of epidemics in all ages—they have traveled in certain directions, pnrsuing a regular course without regsrd to oceans, mountains, earth-surface, climates, or seasons.

What the nature of this mcteor may be, has been a question for many ages. Hitherto no analysis of the air, no chemical test, could discover auything characteristic.

Lately, in a course of experiments, Professor Tyndall has demonstrated that the air which constsntly surrounds us, which we are continusIly breathing, is loaded with living organisms which are of necessity constantly passing into our lungs—that the dust of the air of London is organic and not as he had supposed of the same nature as the ssnd of the desert, inorgsnic and incombustible.

He was led to these experiments in testing the effects of light on different vapors. Dust was exceedingly troublesome, but when he snceeded in eliminating all dust from the air by means of heat—burning it out—he found that light passing through the experimental tube was invisible, owing to the absence of illuminated psrticles. Iu other words, without these organic particles, light would pass through our air without being seen; they render that force visible. This seems to be the reasonable conclusion of Prof. Tyndall.

The air being full of organism which do not affect human existence unfavorably, or may even be essential to life, some sudden chsnge of these germs, some new development, some new organisms appearing, may affect animal organs.

This horse disease first shows itself in the air pssssages, affecting first the nose, then the throst and lungs. Some call it a species of influenza. From all we can gather, it is identical in its pathology with pleuro-pneumonia, rinderpest, and other diseases of a like character. Not that its first effects is the same, that may be quite different. Bnt the disease originates—sets in motion—other pathological disturbauces, secondary effects, which become serious.

We learn that this epizootic is by no means alarming at the onset, and thst with simple hygienic remedies—freedom from hsrd work, quiet exercise, proper food and grooming, the horses are soon well. Bad treatmeut or bad constitutions are followed with scrious effects.

Now, it is held by naturslists that each organ of the body has its proper life, and that it consists of minute centers of action which have been called cells, globules, organic units, germs granules, and other names.

The particles constantly floating in the air only become deleterious, at times to certain of these organs. The epidemic that produces influenza may be the same that at another time would produce cholera. It is a fact thst an epidemic influenza prevailed very extensively in the United States in 1831. It started in Europe and passed rspidly from the northeast, crossing New England into the Middle States, affecting more than half the human population, laying the foundation for many fstal cases of pulmonary disease. The next yesr appeared the Asiatic cholera, following nearly the same track.

At oue time horses and cattle and other domestic animals are subject to this influence. At other times particular organs suffer.

These organisms are so exceedingly minute that only the brightest ray of light will reveal them. The particles which we call "dust," seen in a ray of light entering a dsrkened room sre of the same character. They live and grow in the air and that is as much their home and soil, so to speak, as the organisms that grow from the surface of the earth.

These facts suggest to us several important points. We cannot avoid the coming of these epidemics any more than we cau avoid the earthquake or the hurricane. It is not likely that this horse disease will reach us except by a change of course. Its direction is southwest, and would pass to the south of California. But we know not how broad its track msy be. It is possible for it slso to be propagated by the transfer of diseased animals to unaffected districts. The mountains offer no barrier. As to remedies we have no certain panacea.

We may be sure, however, that these organisms are subject to pretty much the same laws as other organic matter—growth aud decay, and that something msy be done to prevent their entering the animal system, or to destroy or neutralize them after they have entered. It is quite evident that they fix themselves first upon the mucous membrane of the air-passages and there propagate and pass iuto the circulation, or, perhaps, pass directly iuto the system.

Professor Tyndsll found that the air could be clearcd of these particles in several ways. First, by burning them; second, by filtering the air through cotton. It is also probable that some vapors and gases would prove destructive, and thns clear the sir of their presence.

The use of medicinal sgents as snlphnr, quinine, iron, chlorine, the products of tar, etc., may be found of great value. Breathing the air throngh a cotton or silk filter might be fouud practicable, at least for a few days during the prevalence of one of these epidemics. Temperatnre might hsve a favorsble effect on this disease. There should be warmth enough to prevent any chill being felt. Then, again, if a room could be so arranged as only to admit air through a heated medium, as a furnace, or tube, these dangerous organisms would be entirely destroyed.

There are numerous remedies that might be suggested, and means of mitigation, possibly of prevention. We should particularly bear in mind the fact that this is a diseasc of great debility at the onset. There is a depressed condition of the animal—drooping head, watery eyes and disinclination to exertion.

The most tender treatment should be adopted; no harsh remedies should be administered; no bleeding or violent purgatives. The strength of the animsl should be husbanded. By these mesus the animal force will soon rally and overcome the invasion.

Vapor from heated or burning tar has been mentioned and we should have much confidence in this remedy. Allowing the smoke to peuetrate in pretty thick vapors throughout the building, and even making the horses breathe at intervals the air heavily charged with tar vapors would act favorsbly in destroying the growth of these organisms. Tar as we know, contsins many products such as creosote, carbolic acid, etc., destructive to the lower forms of life. Hence its excellent disinfectant properties.

Over exercise, drastic remedies, badly ventilated stables, exposure to cold or wet, will induce a disintegration of the blood, and the horse will die of rapidly developed dropsy, glanders, or some analogous disease, apparently after sll primary symptoms of the disease have snbsided.

Thus we have merely hinted at the nature of this disesse, its csuse, and its remedies. The subject is one of interest and of vast importtance. We cannot afford to omit auy effort that might be useful in saving so faithful an animal as the horse. Our country has lost millions of dollars already by this epidemic, besides the valuble services, for a time, of this domestic snimal. A knowledge of the cause and a correct system of treatment wonld save our State from an immense loss in case the epidemic should reach us.

Respectfully submitted,
C. L. Anderson,
V. Humphrey,
C. M. West,
} Committee.

San Jose Farmers' Club and Protective Association.

[Reported for the Pacific Rural Press.]

Meeting of Jau. 4th, 1873. The President gave notice that in one month he would offer an amendent to the Constitution, msking the election of officers occnr in May, to sgree with the recommendations contained in the circulsr issued by the Departmeut of Agriculture. Mr. O. Cottle said he had received a copy of the proceedings of the Agricultural Congress held in St. Louis last May, together with some other papers which he snpposed were intended for the Club; they contained some suggestions and recommendations, aud were referred to a Committee consisting of Messrs. Cadwell, Brown and Erkson.

A communication from the State Union was read, inviting the Club to suggest any topic which it desired to have considered, at a meeting of the managers to be held in San Francisco on Jan. 3d.

The question of commencing suit to make the citizens of incorporate cities and towns pay County Road tax was adopted for discussion next Saturday—and the reports of the Committee on the same.

Irrigation.

Mr. Brown said that irrigation greatly increased the conditions favorable for animal and vegetable life, there is no question abont that, but the point to decide is the best means of obtaining the desired end. He thonght forest trees affect the electrical conditions of the air and make it favorable for rain; he thonght it wise therefore to recommend the plantiug of

forests especially, as they would be valuable for the timber produced. He objected to the present mode of farming, as it robbed the land; we continually are taking off without putting anything back—irrigating would remedy that, as the water used would carry on fertilizing materials.

Instead of depending on the rains of treacherous seasons, he would have reservoirs built on all the mountain streams, and accumulate the waste water that runs off to irrigate and make our valley fertile in dry seasons. It would be a good investment. They are trying it in the Sacramento and San Joaquin valleys. It will enable our farmers to have green feed for their dairies, and they could wet their straw stacks and make them into suitable and valuable manure to enrich the cultivated fields.

Mr. Buryland thought the amount of water that could be collected from the various streams in our valley, would not be sufficient to make the plan suggested by Mr. Brown at all practical, and even if we could get plenty of water, he does not consider it advisable to irrigate; it spoils the soil. The best thing we can do is to take the cream from our virgin soils and rush ahead and spread civilization. There is ample room on the vast plains of South America and Africa.

Mr. Holloway thinks it will not pay till we get the valley divided up into small farms. He believes in the economy of irrigation; it would make good schools and good roads, and give us all the other advantages they have in cities. He thinks the system of land monopolies must be broken up. He loves to see an independent spirit. He don't believe that forest trees bring rain, but thinks we have plenty of water, if we only save it, and believes it will be done sometime.

Mr. Hobson believes in irrigation; it will kill off the squirrels that have been such a nuisance. Much of our valley is now irrigated by means of wells, and look at the profits of our strawberries and other productions raised by means of irrigation. He thinks that farmers ought to progress and that the area irrigated should be increased as fast as possible, till our valley becomes a wonder to the world.

Mr. Dubois thinks there is a good deal of humbug in the irrigation question, and would like to know who would take stock in such a wild scheme as building dams and laying pipes in our hills. It will do to talk about irrigating from here to the bay where there is water, but there is no water to be had from other places, and he would not use it if there was.

Mr. Haskell don't want to have such an idea go out as the sense of the Club, for we would like to appear intelligent. It is nonsense to say that irrigation is not desirable in our dry climate.

Mr. Fowler believes in winter irrigation, has seen it tried to a limited extent with success.

Mr. Hatch is inclined to think that if the ground was thoroughly pulverized to a great depth it would the more readily admit of what rain fell sinking into the soil, and would also retain the moisture better; that perhaps in this may be found the true secret of properly cultivating our dry soils.

Adjourned.

Farmers' Club of Sacramento.

The Sacramento Farmers' Club met Saturday, January 4th, President, W. S. Manlove. In the absence of the Secretary, G. T. Rich was appointed Secretary.

Our Carrying Trade.

The subject of the "carrying trade" being under discussion, Judge J. H. McCune addressed the Club. Following is his address, with the exception of a few introductory and indirect remarks:

It is in the hope that I may in some small degree contribute to the direction of public opinion that I enter upon the discussion of this subject of the tax on our industry resulting from the condition of the carrying trade, particularly in reference to our railway system. It is a new element in political economy not yet thoroughly understood by any one. The first locomotive ever used was driven by steam from Manchester to Liverpool, October 6th, 1829. A little over forty years have elapsed and there are probably 130,000 miles of railroad in operation. The railroad has become an active agent in civilization and development. We cannot ignore the fact that railroads are a necessity to our welfare, and under proper guidance and control may be made wholly beneficent

The power must exist, and enlightened reason dictates that we must direct it so that its results shall be good and that coutinually. What we as farmers have particularly to do now is to examine the system with reference to freights and fares. All the railroads of our country are at present controlled by corporations existing under the laws of different States, and these companies have an overshadowing influence in our Government, as well as in directing the affairs of each locality through which a road passes. In the meantime this power is wielded by a few men; and these men not wholly patriotic and unselfish. In theory these railroad companies are public, in practice private. They take land by condemnation for public use, and levy their tax in the way of freights and fares at pleasure. It may be that the word tax is too strong This cost of transportation is distributed between the consumer and producer. It is evident that if the cost of transportation is wholly in the discretion of the common carrier he will raise the price till his profit satisfies his cupidity, limited only by a sum which would prevent the producer and consumer from using his line. The carrier would not desire to kill the goose which laid the golden egg, but he would appropriate all the eggs. The actual cost of transportation would be a legitimate charge on the producer and consumer. All that part of the fare and freights above that legitimate charge would be an arbitrary tax.

How to rid ourselves of this tax levied at pleasure is a very difficult question, though not of impossible solution. At present, this tax is levied by men practically beyond, over and above control. The fact that the tax is indirect; that its advocates can plausibly urge that it is by contract only it is paid, are no reasons why we should not scan the question closely. Cotton-growers, tobacco dealers, sugar manufactures and ironmasters scan the tariff-bill closely because it reaches their prosperity and turns it into adversity if not properly adjusted. Why should we not be as diligent?

The fluctation of prices, caused by changes in a tariff, of itself is a curse, because it deranges the steady flow of trade. Why shall not we examine the varying tariffs of charges for transportation, and if possible protect ourselves from injury, if not ruin, from fluctation in prices of transporation and discriminations in favor of certain men or places?

We cannot leave this matter to the companies themselves, or trust to competition as it shall spring up. Competition is only possible for limited times. Self-preservation will demand that competition be not pressed to a ruinous extent, and no companies can long keep up such a contest. Combination will result, and then the public must keep up two roads, and enable each to realize a dividend. In that case the last state of the people is worse than the first.

A Farmers' Railroad.

We may build narrow-gauge roads in self-defense. But a full-fed, powerful, exulting competitor can compel you to run it at a loss, and how long can it be kept up? If the farmers themselves could and would own such competing road, and only run it to carry their own freight, they would in many districts save money. Let your farmers' clubs obtain statistics, and they would probably show that you have paid annually, above legitimate charges, enough to pay the interest on the cost of such a competing road. But if you build your narrow gauge, what assurance have you that the stockholders will not, in course of time, sell out a majority of stock to men who will combine with competing roads. Inducements will be very strong in that direction.

It may be that some plan may yet be devised to make the stock unassignable, or to annex it to your several farms, passing title only by a sale of the farm, and thus place the stock out of the control of any moneyed power. In that case you might possibly get a road permanently competing, and under the control of a class who are directly interested in keeping freights and fares at a low figure.

No legislation has hitherto been devised which will cure the evils alluded to. Atttempts have been made in England and in the United States in the direction of allowing corporations to make only a certain per cent. on their capital stock. Forthwith the corporations invented a plan to water their stock to any required state of dilution, and the law failed to take effect. Besides, practically, in England as well as here, the railroad companies are too strong for "visitation" and an inside view of the transaction of the companies cannot be had. Can a law be framed establishing a scale of fares and freights which will cure the evil we complain of? This is a difficult question to answer in the present state of our information. We must look at it like men. We cannot shut our eyes against the light we have. We cannot without danger go wrong. We feel and know that discriminations are made against certain localities, and that freights and fares are kept at rates ruinous to the producers.

Freights and Fares.

In fixing the freights by law these things should be considered: 1—the distance the freight is sent; 2—the quantity sent; 3—is bulk to be broken; 4—is a car devoted to one termination; 5—considerations of space; 6—a discount to a heavy dealer; 7—the difficulty of moving bulky articles; 8—does the freight or travel extend beyond the State.

In the matter of fares attention must be paid: 1—the speed of transportation; 2—comfort; 3—the distance; 4—the frequency of individual travel (commutation.) Keeping these things in view an act might be framed to operate as a temporary expedient. It would be a mere anodyne. A thorough diagnosis of the disease will show that none of these expedients will be found a specific. We need more thorough reform and the measures must be radical. These things if accomplished would still leave the companies with all their power for harm as well as good, and the power is immense. Political schemers are allowed to use this power in your elections and in their turn your officers reciprocate and in matters of interest to the corporation become subservient. The Erie Railroad makes a Tweed, a Connolly, a Barnard or a Cardoza possible, and official action enriches both parties at the expense of the people. Particularly is this combination felt in matters of legislation; not in the United States alone but in England and among most nations in Europe. Pennsylvania, New York, New Jersey and most Eastern States come so near being governed by the corporations that they may be said to rule in all matters they seek to control, and in the West there is a struggle going on the result of which is yet doubtful.

That these corporations seek to control is severely denied by their apologists. In a daily paper published in this city (*Record*, July 27th, 1872) the matter is put thus thus: "We are not, recollect, defending corporations or claiming that they do not manipulate politics in their own interests. Neither are we prepared to say that there is no choice but between the downright subsidy and the subscription plan. But we are convinced that the real issue in regard to those two schemes involves nothing less than a selection between government by a plutocracy and government by a mob. The great corporations represent the plutocracy. * * But being representatives of capital, which is always cautious and prudent, they may be trusted to guard the interests they control from such depreciation as will affect their value and credit. On the other hand the mob rule which must follow the subscription scheme is guided and governed by no sense of responsibility and checked by no commercial or business considerations."

Plutocrats and Mobocrats.

Exactly what classes are included in the word *mob*, is not clearly seen, but the question is thus fairly put as understood by those who seek to control the entire carrying trade. The whole people is divided into two classes, plutocrats and mobocrats, and government by the former is advocated as the safer. I do not now stop to analyze this theory. It is suggestive, and I leave it with you with the remark that we, as farmers in such a contest, are interested with the mob. Freights are never cheapened by putting the whole business in the hands of one man, or a combination of men, and giving them power to establish their own rates of fare. And in this struggle which is already inaugurated and which must go forward, we cannot be silent, disinterested spectators. We must assist, and our assistance ought to be well directed. This discussion will, I. trust, have the effect to unite us in a common cause and place us side by side with men moving in the same direction in other parts of this and sister States. The Democracy aroused are fierce, and when united and their force well directed opposition must go to the wall. In this matter of government we can't afford to surrender.

We may not agree about remedies, and to-day I have not time to discuss that. Above all, in anything we propose, we must be just. Nothing should be done which would lessen the number of miles of railroad in use, or that will prevent the construction of more, unless in the single instance that we may object to the use of our private funds in the construction of roads owned by private corporations.

Improved Cast Iron Wheel.

H. Still came before the Club and exhibited a Bergeon improved gang-plow or agricultural cast iron wheel, the improvement of which being that the journal or hub boxing is movable, so that when one box is worn out a new one can be keyed in at an expense of fifty cents, thus saving a great deal, as the principal wear in a wheel is in the hub. An ordinary cast iron wheel lasts for two seasons, but this wheel will run till the rim wears off and that would be many years. On motion of Greenlaw, the improvement was regarded by the Club as a valuable one.

The revision of the Constitution was postponed until the next meeting.

James T. Day, of Brighton, was elected a member.

Greenlaw moved that the subject of our "Carrying Trade" be continued till next meeting, and the motion prevailed. Judge McKune will lead off in the discussion.—*Sacramento Union.*

Santa Clara Valley Agricultural Society. San José January 2.—The Santa Clara Valley Agricultural Society held its annual election of officers to-day, with the following result: President, W. C. Wilson; Vice-Presidents, S. Peebles, J. P. Sargent; Directors, Wm. O'Donnel, S. B. Emerson; Treasurer, C. T. Ryland; Secretary, D. J. Porter; all re-elected with the exception of the Secretary. The Treasurer's report shows a balance of $3,083 in the Treasury. The next county fair will commence on Monday, September 22.

Tulare County.

Editors Rural Press:—I wrote you a letter Dec. 15th, telling how all the leaves were still on the trees and vines, and tomatoes untouched by frost, but keeping it a few days to find certain authority on the grain question other things prevented its being finished, and since then we have had one week that made ice on some of the tubs every night from one-eighth to three-eighths of an inch thick, which, though it stripped the trees and vines, did not kill all the volunteer potatoes or do any damage to the peas. Now we count our winter over, though there will probably be some frost yet, and the rains have began in good earnest, one-fourth of an inch on Sunday night, three-quarters more in the gauge Wednesday morning and one this morning brings the total up to two inches, enough to bring up the grain and grass and keep it growing some time. This year farmers who sowed in the dust will have a decided advantage, as by the time those who have not sowed can get theirs in, ours will be up and well rooted. I have in a little of three varieties of wheat, and two of oats to see how they will each do here, but I am particularly interested now in the question of feeding grain to hogs.

Which Will Pay Most,

To cut and thrash barley at an expense of 30c. per 100, and cook at an expense of 5c. per 100, or to let the hogs harvest for themselves? Who will try the experiment? Say enclose one acre or less, weigh your hogs and when they have finished the grain, weigh again to see the difference, having the grain fairly estimated, or let it be an average of the field you harvest; next, feed to a similar lot of hogs the same quantity of grain, cooked well, for there is probably much difference whether the grain be well or only half cooked. That would be the kind of experiment for a state experimental farm to try with each kind of grain.

Isaac B. Rumford.

Plano, Tulare Co., Dec. 26th, 1872.

Sacramento Beet Sugar Factory.

In the Sacramento *Daily Record* Supplement, of Jan. 1st 1873, is the following:

This factory is located nearly three miles from the city, in a locality peculiarly convenient for its operations. The full working capacity of the mill was brought into action last year, but the beet crop failing, the production of sugar fell short. Some 1,450 acres of ground, in all, are in use for the factory. The buildings are large and well arranged, the machinery is of the most approved pattern, and the fitting up and arrangement of the works is admirable. The main building is 150 feet in length, rising at it its highest point 63 feet. Outbuildings for boarding and lodging workmen, care of animals in use, tool shops, cooper shops, etc., are numerous. The cost of the factory thus far, for its erection and outfit, has exceeded $250,000. The beets sown and raised by the factory proprietors, yield about 12 per cent., on the average, of saccharine matter. The quality of sugar turned out is superior to that produced from beets grown in any other section of the State.

The destruction of the beet by the army worm has been a serious drawback, but such a misfortune is not again anticipated for some years to come, as the worm seldom makes successive attacks. On the grounds of the factory houses are erected for feeding the refuse of the beet, mixed with usual feed, to a large number of cattle. It proves most excellent feeding for beeves, hogs and sheep. Several thousand head of stock have been fatted already at the works. The motive power for the factory consists of five engines, aggregating 500-horse power. The reduction of the beets in the boiling process consumes about eleven cords of wood daily as fuel. Some 160 men are usually employed at the factory. The yield of beets from the factory grounds is estimated at 7,000 tons for the year.

It is not the purpose of this sketch to describe the process of working, but its observation will doubly repay a visit to the factory. The Superintendent is Captain S. Ehrenstein, a German gentleman, with a large experience in the manufacture of sugar.

Beet Sugar at Sacramento.

We are informed that the Sacramento Valley Beet Sugar Company will enlarge their operations the present year. It will be remembered that the company put under cultivation to beets last year, on their own land and that of others in their immediate vicinity, nearly 1,200 acres.

It is now proposed, indeed the company have determined to increase their area of beet lands the coming season, by planting an additional 400 acres at Davisville, some ten miles distant from the sugarie, on the line of the Sacramento and Vallejo railroad. In this connection we remark that the sugar from the Sacramento works, now in use in San Francisco, has not its equal in the best cane sugar from the refineries.

Black Hawk Beet Sugar Factory.—We learn from the Sank Co., Wis., *Pioneer*, that work at the beet sugar factory at Black Hawk, in that county, is progressing in a satisfactory manner. The percentage of sugar produced has increased three-quarters of one per cent. over last year's yield. The sugar made—white coffee, and loaf sugar, can compete with any other sample. The only trouble complained of is a lack of care in the cultivation of beets during the season of growth.

Opium Culture.—Some time ago we printed a statistical article showing the wonderful profits accruing from the cultivation of the poppy and the production of opium. It is probably ten-fold more profitable than any other branch of agricultural industry. The climate and soil of the great San Joaquin valley are exactly similar, it is stated by those who know, to those of the valley of the Ganges, the greatest opium producing district in the world. There is no doubt that this valley is suited to the production of opium. We hope that the culture of the poppy will be tried and that the experiment of producing opium, so easily made but so important in its nature, will receive the attention and efforts it deserves. If we can produce opium we have a mine of wealth richer than Golconda or the fabled Land of the Golden Fleece. Try the experiment.—*Tulare Times.*

Home and Farm.

The Tiller of the Soil.

As I have given the description of our various soils and climate within the radius of ten miles of the city, I will refer to the earliest settlers, improvements, adaptation of the soil, market, and other points pertaining to the subject on hand. Perhaps in all the annals of history of our country—the intense excitement, the dream of wealth, glittering of gold dazzling the imagination — California never had no equal. Thousands left their old homes, sacrificing property to gain the promise land to better their circumstance in life, both financially and physically, adopting our land as their homes, making up a part and parcel of society, engaging in the duties that each are capable of filling, fostering our institutions of learning, tilling her virgin soil, developing her mines; thereby placing her as one of the bright stars in the galaxy of human progress, enlightenment and predominant will and energy of any race on the face of the globe.

As all are endowed with facilities of learning, art and manufacture, each and every one helped to build up a new and undeveloped country. Prominent among the whole class stands the thrifty, self-energetic tiller of the soil. Gold was once king, as cotton was king of the south, but foremost now stands the production of her soil. Grain, her staple wealth, reigns king of the West, shipping abroad her thousands of tons and building up her commercial interest to one of strength and power; her fruit, the finest of the world, her mammoth vegetables, all completely placing her foremost in agricultural products, as well as her mines of wealth. While the mechanic, merchant and tradesman follow their legitimate business, the farmer chose the open plains where a broader field lay open for cultivation, to sow, reap, plant and gather the fruits of his own labor.

Government and Grant Lands.

For the success of a new country, it requires population and public domain, emigrants with energetic spirit to develop her resources, and push ahead in every new enterprise that opens before them. California has been a child of sorrow; being kept back in growing to that state of maturity, especially in agricultural pursuits as she should, and to-day she feels the curse of the grant system that covered her land —like network, previous to the entry as a State in the Union. Keeping her as if chained from rising in the position which she should occupy in the eyes of her sister States, depriving the actual settler from retaining her land, and thereby seeking a home where his rights are more respected. Such has been the disadvantages that our city had to contend for years, and kept many from making their homes with us, but after years of litigation and expense the rights of possession and title the Courts of law have regulated to some extent, placing the occupant on a firmer basis than before.

But without the limits lay land subject to entry laying along the river southward, and passing up through the highland to the foothills.

Occupation and Improvement.

Land was first occupied along the rivers near the borders of the city being near access to market, but in 1853-4, population increased. The extent of opening and improvement kept pushing back to the highlands, when in 1855-6 a reaction took place, one after another entered their lands, influencing others to follow till now every quarter section is occupied, fenced and many beautiful knolls of rising ground dotted on the plains may be seen with neat cottages, while those whose taste is cultivated for beauty and adornments laid out their grounds in neat form, and arranging flowers and ornamental shrubbery in forms of artistic skill to the beholder. Mother Earth first felt the workman's plow turning up her virgin soil, and receiving the seed to germinate and spring forth from its hiding place to light. Orchards and vineyards set out, converting the once desolate plains to one of thrift and life.

The Object of Selling Near a Market.

Those who know anything of the situation of Sacramento from the earliest period to the present time, can see the fact is fully demonstrated that her centre of trade throughout the principal points of the State, Oregon and Nevada, with her railroad branching from every available place, traversing through mountains, vales and sandy desert, to the Eastern terminus, all centering to our city, the point where she first broke ground; which a man of any business capacity can see at a glance the advantage gained by locating near the centre of trade, bringing in their produce in exchange for trade and traffic, and shipping to other markets thousands of miles distant her wool, wines etc.; and so thought many that located within an hour's ride, and had an eye to the future greatness that laid in store for them, as they produced from her soil grain, hay, fruits and vegetables; manufacturies of wine and brandy, with a continued outlet and demand for same, losing no time with saving of expense compensated well, and in the mean time their land was yearly growing in value, which now within five to ten miles cannot be had less than thirty dollars to ninety per acre, and improved farms from $5,000 to $15,000, showing within fifteen years the value derived by locating near a good market. G. R.

Sacramento Co., Dec. 30, 1872.

Japan.

Japan is a wonderful country. What we call civilization was introduced, to a limited extent in Japan, some two hundred years ago by the Dutch, who were permitted to send two ships a year there and trade with the natives. They were obliged to submit to many restrictions, and to forfeit their self respect in doing so.

The Catholic priests made many converts, until in an evil moment they were led to take sides in a civil war, and the party with whom they allied themselves being defeated, the Catholic priests were banished from the country and their religion suppressed. Hence arose the custom which prevailed for a long time of trampling the cross under foot. Civilization then retrograded until a treaty of commercial alliance between the United States and Japan was signed in March, 1854. In 1856, Nagasaki and Hakodadi were opened to foreign commerce, but it was not until after nine years' intercourse with foreigners that Japan gave indications of adopting many of the elements of Western civilization. Since then the Japanese have introduced into their country the steam engine, the telegraph, and a national system of education—all important steps toward freedom.

The antiquated feudal system of the Japanese under which so much power was held by the hereditary nobles, and the country continually threatened with civil war and anarchy, has been abolished, and all governmental authority has been vested in the Mikado and his ministers. The sale of young women for the purposes of prostitution has been prohibited under severe penalties, and other great social and political reforms have been accomplished.

But the most remarkable news is that brought by mail a short time since, that next month an elective parliament is to be established. This is to consist of 600 members, and there are to be two Houses, but whether both will be elective, similar to those of the United States, was, at the time of the departure of the mail, not clearly understood.

The Japan *Gazette* says: "It is an experiment of the deepest interest; and nothing that has yet been done by the Government is so big with mighty consequences as this. Surely all praise is due to the Government which has led the people step by step to freedom, and which now places so large an amount of power in their hands." We are in the habit of thinking that this truly wonderful people are semi-barbarous.

This is a grave mistake. In the manufacturing of many wares and other ingenious contrivances, they are our superiors, but we have not the time or space to enumerate, and will therefore only allude to one thing in which they excel. They understand most thoroughly the art of dwarfing plants and trees. They have peach and other trees which are only one foot in height, and still bear fruit. While we can teach them much we can also learn much from them.—*Gold Hill News.*

The Ideal Farmer.

Ralph Waldo Emerson, in one of his essays, thus portrays the glory of the farmer:

"The glory of the farmer is that, in the division of labor, it is his part to create. All the trades rest at last on his primitive authority. He stands close to nature; he obtains from the earth the bread and the meat. The food which was not he causes to be. The first farmer was the first man, and all historic nobility rest on possession and use of land. Men do not like hard work, but every man has an exceptional respect for tillage, and the feeling that this is the original calling of his race, that he himself is only excused from it by some circumstances which made him delegate for a time to other hands. If he had not some skill which recommended him to the farmer, some product for which the farmer will give him corn, he must himself return into his due place among the planters. And the profession has in all eyes this ancient charm, as standing nearest to God, the First Cause. Then the beauty of nature, the tranquility and innocence of the countryman, his independence, and his pleasing arts—the cares of bees, of poultry, of sheep, of cows, the dairy, the care of hay, of fruits, of orchards, and forests, and the reaction of these on the workman in giving him a strength and plain dignity, like the face and manners of nature, all men acknowledge. All men keep the farm in reserve as an asylum, where, in case of mischance, to hide their poverty, or a solitude, if they do not succeed in society. And who knows how many glances of remorse are turned this way from the bankrupts of trade, from mortified pleaders in courts and senates, or from the victims of idleness and pleasure? Poisoned by town life, and town vices, the sufferer resolves: 'Well, my children, whom I have injured, shall go to the land, to be recruited and cured by that which should have been my nursery, and now shall be their hospital.'"

Walnuts in Los Angeles.—The Walnut crop is quite an item in Los Angeles County, where more attention has been bestowed upon the propagation of the walnut than in any other part of the State. The crop this season, the *Express* says, amounts to 60,000 pounds, as against between 40,000 and 50,000 last year. Fifty thousand pounds of this year's crop had been sold at ten cents per pound.

Practical Hints to Housekeepers.

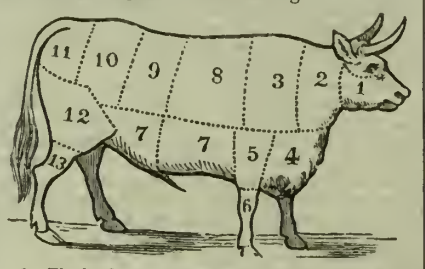
BY CATHARINE E. BEECHER.

Every woman, at some period of her life, may need the instructions of this article. Many a widowed mother in our new settlements has had to train her young sons to do every thing on which life and comfort depends, and our wide prairies and forests will witness thousands of similar instances in days to come. For such especially this is prepared.

This article was first written at Cincinnati, by aid of business men experienced in such matters. It has been rewritten at Hartford, Connecticut, with aid and counsel from intelligent butchers and grocers.

Fig. 1.—Beef.

The animal, when slaughtered, should be bled thoroughly. The care taken by the Jews in this and other points draws custom from other sects to their markets. The skin is tanned for leather, and the fat is used for candles and other purposes. The tail is used for soups, and the liver, heart, and tripe are also used for cooking. The body is split into two parts through the backbone, and each half is divided as marked in the drawing.



1. The *head*; sometimes used for mince-pies; sometimes it is tried up for oil, and then the bones are used for fertilizers. The horns are used to make buttons and combs, and various other things.—2. The *neck*; used for soups and stews.—3. The *chuck-rib* or *shoulder*, having four ribs. It is used for corning, stews, and soup, and some say the best steaks are from this piece.—4. The *front of the shoulder*, or the *shoulder-clod*, which is sometimes called the *brisket* or *rattleran*, used for soup and corning.—5. The *back of the shoulder*; used for corning, soups, and stews.—6. The *fore shin* or *leg*; used for soups.—7, 7. The *plate pieces*; the front one is called the brisket (as is also 4), and is used for corning, soups, and stews. The back plate piece is called the *flank*, and is divided into the *thick flank*, or upper *sirloin*, and the *lower flank*. These are for roasting and corning.—8. The *standing ribs*, divided into *first*, *second*, and *third cuts*; used for roasting. The second cut is the best of the three.—9. The *sirloin*, and is the best roasting piece.—10. The *sirloin steak* and the *porter-house steak*; used for broiling.—11. The *rump*, or *aich-bone*; used for soup or corning, or to cook *a la mode*.—12. The *round*, or *buttock*; used for corning, or for *a la mode*; also for dried beef.—13. The *hock*, or *hind shank*; used for soups.

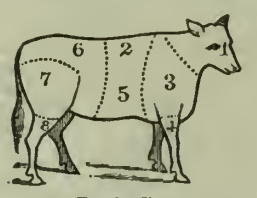


Fig. 2.—Veal.

The calf should not be slaughtered until it is six weeks old. Spring is the best time for veal. It is divided as marked in the drawing.

1. The *head*, sold with the *pluck*, which includes the *heart*, *liver*, and *sweet-breads*.—2. The *rack*, including the neck; used for stews, pot-pies, and broths; also for chops and roasting.—3. The *shoulder*. This, and also half the rack ribs of the fore quarter, are sometimes roasted, and sometimes used for stews, broths, and cutlets.—4. The *fore shank* or *knuckle*; used for broths.—5. The *breast*; used for stews and soups; also to stuff and bake.—6. The *loin*; used for roasting.—7. The *fillet*, or *leg*, including the hind flank; used for cutlets, or to stuff and boil, and to stuff and roast or bake.—8. The *hind shank*, or *hock*, or *knuckles*; used for soups. The *feet* are used for jelly.

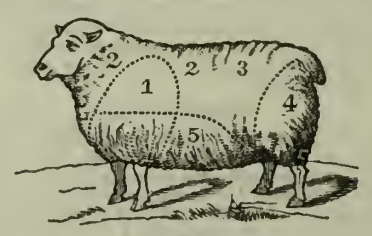


Fig. 3.—Mutton.

1. The *shoulder*; for boiling or corning.—2, 2. The *neck* and *rack*; for boiling or corning.—3. The *loin*; is roasted, or broiled as chops.—4. The *leg*; is boiled, or broiled, or stuffed and roasted. Many salt and smoke the leg, and call it smoked venison.—5. The *breast*; for boiling or corning.

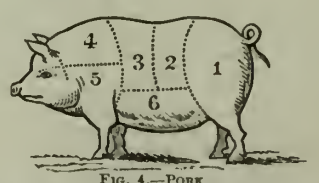


Fig. 4.—Pork.

1. The *leg*, or *ham*; used for smoking.—2. The *hind loin*.—3. The *fore loin*.—4. The *spare-rib*; for roasting; sometimes including all the ribs.—5. The *hand*, or *shoulder*; sometimes smoked, and sometimes corned and boiled.—6. The *belly*, or *spring*, for corning or salting down. The *feet* are used for jelly, head-cheese, and souse.

DIRECTIONS FOR MARKETING.

In selecting *Beef*, choose that which has a loose grain, easily yielding to pressure, of a clear red, with whitish fat. If the lean is purplish and the fat yellow, it is poor beef. Beef long kept turns a darker color than fresh-killed. Stall-fed beef has a lighter color than grass-fed. Ox beef is the best, and next, that of a heifer.

In cold weather, it is economical to buy a hind quarter; have it cut up, and what is not wanted immediately, pack with snow in a barrel. All meats grow tender by keeping. Do not let meats freeze; if they do, thaw them in cold water, and do not cook till fully thawed. A piece weighing ten pounds requires ten or twelve hours to thaw.

In selecting *Veal*, take that which is firm and dry, and the joints stiff, having the lean a delicate red, the kidney covered with fat, and the fat very white. If you buy the head, see that the eyes are plump and lively, and not dull and sunk in the head. If you buy the legs, get those which are not skinned, as the skin is good for jelly or soup.

In choosing *Mutton*, take that which is bright red and close-grained, with firm and white fat. The meat should feel tender and springy on pressure. Notice the vein in the neck of the fore quarter, which should be a fine blue.

In selecting *Pork*, if young, the lean can be easily broken when pinched, and the skin can be indented by nipping with the fingers. The fat also will be white and soft. *Thin* rind is best.

In selecting *Hams*, run a knife along the bone, and if it comes out clean, the ham is good, but if it comes out smeared, it is spoiled. Good bacon has white fat, and the lean adheres closely to the bone. If the bacon has yellow streaks, it is rusty, and not fit for use.

In selecting *Poultry*, choose those that are full grown, but not old. When young and fresh killed, the skin is thin and tender, the joints not very stiff, and the eyes full and bright. The breast-bone shows the age, as it easily yields to pressure if young, and is tough when old. If young, you can with a pin easily tear the skin. A goose, when old, has red and hairy legs; but when young, they are yellow, and have few hairs. The pin-feathers are the roots of feathers, which break off and remain in the skin, and always indicate a *young* bird. When very neatly dressed they are pulled out.

Architectural Skill of Birds.—When the writer resided in Central New York, a pair of Baltimore orioles were accustomed to build a nest every season on the swaying branch of some tree near the dwelling. A ladder was once ascended simply to inspect their architectural operations. The birds had chosen a forked horizontal branch from which to suspend their nest. They had found a few pieces of wrapping-cord about a yard in length, one end of which had been put three times around one branch, while the other end was securely attached to the other branch, making a miniature swing. Another piece of the yarn was attached to the same branches, but at different points, so that the pending portion crossed the first cord, and hung down just as low. The ends of the cords were wrapped around the branches with as much skill as an expert sailor secures the ends of his lines and hawsers. The extremities were tucked beneath the supporting cord, at the upper side of the branch, so that it was impossible for either end of the cord to slip, as the greater the weight applied where the nest was to rest, the tighter the ends of the suspension cords would be held. After these cords were secured to the branches, other cords, strings, spears of dried grass, long horse hairs, and tow were woven and interlaced from cord to cord in a circular form, in a most ingenious manner. When the nest was finished, it appeared like a minature sack almost ten inches deep, suspended beneath a forked branch. The birds entered at the top of the sack.

When Will Farming be More Profitable? When the lands are divided up and sold in small farms instead of being held in monstrous monopolies, and rented to poor men whose labors make the landlord rich; when our public servants get a *fair* salary for their services; "when railroads are built and run for the benefit of the public, instead of a few; when it is thoroughly disreputable to be a defaulter when city customers know pure milk from white sweetened water; when tobacco is neither grown nor used; when corn, rye or grapes are eaten instead of being converted into alcohol to waste the lives of mankind; when nations don't spend enough at war to make the whole world a garden; when the common people learn the laws of health, and the natural rights of man, so that the doctors and lawyers will have time to stick to their farms; when the churches of the whole world cost a great deal less than the schools and public libraries —then there will be no trouble in making farming profitable.

The Best Bee Hive.—At the Bee Keepers' Convention, held at Kalamazoo, during the Michigan State Fair, the above question was submitted to a committee, who reported that the best bee hive was one with a broad chamber not exceeding twelve inches, or less than ten inches in depth, and to be of such a form that contains not less than 2,000, and not to exceed 2,500 cubic inches of space; and that the surplus honey space above be of the same size, in order to use the same sized frames, or small honey boxes with frames. That the entrance should be small in winter, allowing of not more than two bees to pass each other at a time, and the ventilation upward to be regulated at pleasure, as no strong current of air should pass up through the hive, that being highly injurious to the bees. There is no question that this is the best hive; but how much of this is patented is an unsettled question.

Useful Information.

The Cause of Paint Cracking

One says because there is too much oil in it; another not oil enough; another thinks because it has dried too quick and soon. The fact is, says the *Coachmakers' Journal*, that more paint cracks from the use of oil, and hasty work than anything else. Some, in fact a good many painters persist in mixing their paint very elastic although, thinking that they will have a tough elastic coat like rubber, that will give to the swelling and shrinking of the wood, without cracking, and scarcely break apart, if the panel of a buggy were split in two. Well we will admit that in that way they can get a very elastic coat, and if it would remain that way and never dry, it would be the thing, but the paint will dry sometime. Any material will contract in drying. Their elastic body of paint will continue to dry and contract until its elasticity gets to its utmost limits, then it will give way and spread apart in great gaping cracks.

To paint up a job with elastic coats of paint, it should go through a very long process, and the different coats be put on tnin and not put on one coat of paint until the previous coat is perfectly dry. Putting on a number of heavy coats of paint or rough stuff as fast as they are fairly set will cause cracking of the worst kiud either before or after varnishing. Paint is too often supposed to be dry, when it is really not half dry. Six months of good drying weather would be a short time to get a coach body ready for the varnish on the elastic or tacky principle, and that is not all there is to contend with; in the oil process, the oil will sweat through the varnish and cause it to lose its brilliancy or luster.

The quick process, or flat coating, can be hurried so that it will crack, and crack badly. Our few limited ideas about obviating cracking are all summed up in a few words, viz: let every part of the wood be thoroughly piimed with a good fresh priming; prime inside and out, so the weather cannot act on the wood; let the priming get perfectly dry; then mix every coat of lead and rough stuff with japans and varnishes that will dry firm and hard; put enough in to bind the paint well and no more; have every coat dead color; do not put on the coats too heavy; let every coat be bone dry before putting on another; put on enough of coats to fill the grain of the wood, and make a perfect surface, and no more, then you will have a body of paint that is firmly bound together, and thoroughly dry, and when paint is thoroughly dry it can shriuk no more (it only shrinks when drying) and if it don't shrink it cannot crack, and in this kind of a body of paint there is no moisture or oil to sweat out and destroy the luster of the varnish. Painting of this description will not crack until the joints of the wood begin to give away and let the water and damp atmosphere in and swell the wood along the edges of the joints and cause the paint to crack from the swelling and shrinking of the wood. Varnish may crack on the top of the best painting.

If the paint is uot well protected by varnish it will perish in time, sooner or later, owing to how well it is protected. The ravages of time will destroy anything that is temporal. Now-a-days, painters will paint jobs in two weeks, and wouder why it cracks; the blame is generally laid on the material or anything else but the right cause.

Curious Case of Spontaneous Combustion. We have from France a well-attested case of spontaneous combustion, the particulars of which are thus given in the "Comptes Rendus" of the Academy of Sciences. On one of the hottest days of last summer, M. Wattier-Guérin, a manufacturer of Ribemont, happened to observe a light smoke rising from an oaken beam which had for a considerable time stood in the courtyard of his premises, one end leaning against a wall. This beam was some twenty feet in length and six by nine inches square, and stood perfectly isolated, with the exception that an old well-cover made of boards, sheet-iron, and slates, leaned against it. On comiug nearer, M. Mattier saw that the beam was on fire, but gave out no flame, the surface presenting the appearance of an extinguished coal fire. By blowing upon it, it was found to be burning vigorously. The fire did not commence at the lower extremety of the beam, but at the point where it came in contact with the well-cover. Thence it spread upwards, advancing in the form of a V, and finally involved the entire thickness of the beam, extending over ten feet in length.

Artificial Volcanoes.—A Viennese chemist, Hochstetter, has been experimenting upon the artificial production of volcanic eruptions in miniature. His process is based upon a certaiu property possessed by sulphur, in virtue of which that substance, when melted under the vapor of water having a pressure of three atmospheres, absorbs a certain amount of the water, and then the latter, as the sulphnr cools, escapes in shape of steam. Thus, if you take a hundred weight of sulphur, and subject it to the above treatment, when cooling begins a superficial crust is formed; if then you make au opening in this crust, there will be a succession of explosions and emissions of steam and sulphur. If the course of an hour a cone will be formed, having a diameter of ten or twelve inches at its base, and two or three inches in hight, closely resembling the oone of a volcano, formed by the successive currents of lave.

Mirror Photographs, as they are called, are silvered glass with a picture pasted on the back. There is no silver where the picture is seen, but on the sides there is enough metal to give the effect of a mirror. A person could have his photograph taken and so placed upon silvered glass as to enable himself to see what the camera had made of him and what reflected light disclosed. If platinum were to be employed in place of silver, the thin film would show no picture by transmitted light, but by reflected light the image would appear. Such a device as this would be capable of extensive application in show wiudows and interior counting rooms. Glass partitions could be so arranged that persons sitting behind them could see all that was going on in a store while they would themselves be invisible. It is thought that if a thin gelatin print were to be pasted upon the glass, an engraved picture could be produced by means of the sand blast, which could be subsequently silvered or not, according to the purposes to which it is to be applied. Elegant results could be obtained in this way for many ornamental purposes.

The Great Wall in China.—Mr. Seward, in speaking of the great wall in China, which he examined during his late trip at the East, says: "The Chinese have been for the past two or three thousand years a wall-making people. It would bankrupt New York or Paris to build the walls of the city of Pekin. The great wall of China is the wall of the world. It is forty feet high. The lower thirty feet is of hewn lime-stone or granite. Two modern carriages may pass each other on the summit. It has a parapet throughout its whole length, with convenient staircases, buttresses, and garrison-houses at every quarter of a mile, and it runs, not by cutting down hills and building up valleys, but over the uneven crests of the mountains, and down through their gorges a distance of a thousand miles. Admiral Rodgers and I calculated that it would cost more now to build the great wall of China through its extent of one thousand miles than it has cost to build fifty-five thousand miles of railroad in the United States. What a commentary it is upon the ephemeral range of the human intellcct to see this great utilitarian enterprise, so necessary and effective two thousand years ago, now not merely useless, but an incumbrance and an obstruction."

To Make Court Plaster.—To make court plaster, soak isinglass in a little warm water for twenty-four hours; then evaporate nearly all the water by a gentle heat, dissolve the residue in a little proof spirits of wine, and strain the whole through a piece of open lincn. The strained mass should be a stiff jelly when cool. Now, extend a piece of silk on a wooden frame, and fit it tight with tacks and thread. Melt the jelly and apply it to the silk thinly and evenly with a hair brush. A second coating must be applied when the first has dried. When both are dry, cover the whole surface with two or three coatings of Balsam of Peru, applied in the same way. Plaster thus made is very pliable, and never breaks.—*Rural New Yorker.*

Ornamenting Lamps.—I wonder if many readers are aware what a pretty effect may be produced by pasting with mucilage autumn leaves and ferns on the inside of porcelain shades. I refer particularly to the student lamp. Of course they should be the brightest, smallest specimens, and may be arranged either in clusters or a wreath all the way around. They should be prepared in the usual way, pressed or ironed. I brush mine with linseed oil, but I am not sure that is essential. They will remain bright two or three months, and when faded can be easily soaked off with warm water and replaced with others.—*Rural New Yorker.*

Wetting Coal for Heating Boilers.—M. Seidler refutes the opinion, so generally prevailing that wet coals burn better or produce more heat than dry ones. If the blacksmiths sprinkle their coal dust near the blast pipe with water, they merely do it to keep the top layer in shape. Wet coal burns as slowly as green wood, evidently from the fact that the water must evaporate before the fuel will burst out in flames. The author always obtained more steam by employing dry coal, and in a comparative trial, extending over a week, he saved fourteen tons of coal by not wetting it.

A Beautiful Experiment.—When fifteen to twenty grammes of granulated silver is introduced into a perfectly dry tube of hard white glass, with from thirty to forty grammes of bisulphide of carbon, and then hermetically sealed, on warming gently and then shaking in the dark, sparks are observed in the liquid, which by continued shaking may be rendered quite luminous. Pouring water on the tube causes the luminosity to disappear, but on shaking it becomes visible. This is a beautiful experiment. Iron and aluminum produce similar effects, while platinum, copper and zinc do not.

Artificial Skins for Sausages—In Wurtemburg there has been started a rew industry, which consists in the manufacture of skins of parchment paper for sausages. This artificial product is considerably cheaper than the natural one; it is not subject to fermentation, and is distinguished for its cleanliness. It is made by means of machines, in the thickness of ordinary writing paper, and sent to any address through the Post Office.

Good Health.

Cundurango and Sarsaparilla.—The famous cundurango, from which so much was expected in the cure of cancer, is said to have derived its name from the circumstance that the condor, (cundur) wheu bitten by poisonous snakes, eats its leaves as an antidote to their poison; hence *cundurango*, signifying condor vine. Its use in Europe as a remedy for cancer appears to have been attended with very doubtful success.

The Philadelphi *Medical Times* in speaking of this plant remarks that "It was not the curing of cancer, but it was the obtaining of a profit of somewhere about 1900 per cent. ($38 per pound on an article costing not $2 per pound), that animated the advocates of cundurango. The bubole has, however, been pricked; and we presume that Messrs. Bliss & Keene, more in sorrow than in anger, watch the fading glories of their great specific. They are making a feeble stand, or some one is trying to do so for them, on its auti-syphilitic powers; this will perhaps work off the stock they have on hand, but it will hardly do more.

One point of curious dissimilarity may be noticed between the medical history of this article and that of its analogue, sarsaparilla; namely, the comparatively short time required for the explosion of the claims of the former. The explanation is undoubtedly to be found in the free aud constant reports of the results of experiments all over the world, which modern means of communication alone could render possible. Sarsaparilla held its own in country neighborhoods, retired towns, and remote places, long after it had been tried and found wanting at the great centres of medical science. Cundurango is known as a stupendous failure wherever it is known at all."

Phenomena of the Brain.—One of the most inconceivable things in the nature of the brain is that, although the organ of sensation, it should itself be insensible. To cut the brain gives no pain; yet in the brain resides the power of feeling pain in any part of the body. If the nerve which leads to it from the injured part be divided, we become instantly unconscious of suffering. It is only by communication with the brain that any kind of sensation is produced; yet the organ is itself insensible. But there is a circumstance more wonderful still. A certain portion of the brain itself may be removed without destroying life. The animal lives and performs all those functions which are necessary to simple vitality, but it has no longer a mind. It cannot think or feel. It requires that the food should be pushed into its stomach; once there it is digested, and the animal will even thrive and grow fat. We infer, therefore, that a part of the brain is simply intended for the exercise of the intellectual faculties, whether of the lower degree, called instinct, or of that exalted kind bestowed on man, called reason.

Now and Then.—The *Pulse of Health* says, in relation to, and deprecation of, what it calls "Sensational Hygiene": Certain facts are so patent—as for iustance, that the present cookery is far better than that of twenty years ago; our clothing warmer in winter, cooler in summer, and every way more sensible than that of the last generation; our modern houses incomparably more convenient and comfortable than those they replace; our habits of life, in every essential respect, more healthy, cleanly, and refined than those of any other nation or age; and, finally, as the direct outcome of these improved conditions, the average of life is so steadily increasing—these facts are so obvious and pertinent that the necessity for exaggeration, dogmatism, and sensational half-truths concerning hygiene, if such necessity ever did exist, certainly exists no longer.

Phosphated candy is the latest novelty in the medicated line. It is based on the popular, though not yet well established idea, that there is a brain wasto of phosphorus which ought to be made good by some special or medicated food. Phosphoric acid, associated with iron, is sometimes prescribed by physicians; and the idea of disguising the unpleasant nature of phosphoric acid by admiuistering it in candy is certainly ingenious and may be advantageous. We are a nation of candy eaters and as bonbons are popular everywhere, perhaps we may as well employ them as an agreeable vehicle for taking disagreeable medicine, as indeed is already done to a considerable extent.

Activity and Health.—Men who have half a dozen irons in the fire are not the ones to go crazy. It is the man of voluntary or compelled leisure, who mopes and pines and thinks himself into the mad-house or grave. Motion is all nature's law. Actiqn is man's salvation, physical and mental; and yet nine out of ten are wistfully looking forward to the coveted hour when they shall have leisure to do nothing—the very siren that has lured to death many a "successful" man. He only is truly wise who lays himself out to work till life's latest hour, and that is the man who will live the longest, and will live to most purpose.

How to Walk.—A smooth, long step, the weight of the body on the loins, where nature intended it should be, and the legs propelled from thence, without either stiffness at the knee or obtrusive motion of the hips, is, probably, the ideal of walking, and such one finds both in a highly trained woman and the untaught perfection of a South Sea Islander."

A Strange Disease.—Intense radiation of heat in the great desert of Sahara produces extraordinary effects on insects as well animals and men. When a caravan starts out to traverse that wide waste of desolation, flies follow on in prodigious multitudes, attracted, no doubt, by odor from the camels, but they soon drop dead by the intensified heat. Fleas, burrowing in hair, straw, or sacks, are killed off rapidly. But the most singular of all is the malady to which men are incident after being exposed a short time to burning sauds and a vertical sun on that arid and life-forsaken region. It is called ragle—a kind of brain fever. The stricken traveller is delighted, amused, and made extensively happy by exhibitions of fantastic forms. He secs mirages, palm-trees, groups of tents, shady mountains, sparkling cascades, and misty forms dancing delightfully before his entranced vision. From all that can be gathered upon the subject, it appears that a certain condition of atmosphere, wholly free from moisture, with intense solar heat, produces effects on the brain similar to hasheesh. Both exalt the nervous system, and speedily destroy all desire to exist, deprived of that unnatural excitation of the brain.

Taking Cold.—If a cold settles on the outer covering of the lungs, it becomes pneumonia, inflammation of the lungs, or lung fever and in many cases carries off the strongest man to the grave within a week. If cold falls upon the inner covering of the lungs, it is pleurisy, with its knife-like pains and its slow, very slow recoveries. If a cold settles in the joints, there is rheumatism with its agonies of pain, and rheumatism of the heart, which in an instant sometimes snaps asunder the cords of life with uo friendly warning. It is of the utmost practical importauce, then, in the winter weather, to know not so much how to cure a cold as how to avoid it.

Colds always come from one cause, some part of the body being colder than natural for a time. If a person will keep his or her feet warm always, and never allow himself or herself to be chilled, he or she will never take cold in a lifetime; and this can only be accomplished by due care in warm clothing and avoidance of drafts and exposure. While multitudes of colds come from cold feet, perhaps, the majority arise from cooling off too quickly after becoming a little warmer than is natural from exercise or work, or from confinement to a warm apartment.—*Sci. Am.*

India-Rubber Cloth in Skin Diseases.—From a note translated by *The Doctor*, we learn that since 1868, M. Hardy, of Paris, has been employing india-rubber cloth in place of poultices or local baths. He employs pieces of cotton, covered with a layer of caoutchouc, and forming an impermeable tissue. This is only applicable to the extremities and to the head; and for the latter region he makes use of vulcanized india-rubber caps. After a certain time, the part enveloped becomes not disagreeably warm, and then an abundant sweating takes place, under the influence of which the crusts, and the squames which cover the skin are removed, the epidermis spreads over the ulcers, and the skin becomes softened.

The results obtained are similar to those obtained by poultices, but preferable for many reasons. Daily experience of the Hopital St. Louis shows a great rapidity in the modification of the skin; two or three days of application suffices completely to cleanse the scalp when covered with abundant scales of eczema, etc. After forty-eight hours' application of the india-rubber cloth upon hands attacked with chronic eczema, with fissures and cracks in all directions, the wound becomes cicatrized, and the skin recovers its suppleness.

New Cure for Rheumatism.—There are a thousand pretended cures for rheumatic and neuralgic affections, not one of which is found to effectually eradicate them. If a remedy could be devised to answer that end, its discoverer would be entitled to the thanks of the world, and might amass for himself a collosal fortune. A therapeutist of London thinks he has hit upon it, in the administration of hot sand baths. He claims that its advantage consists in the fact that it does not suppress perspiration like the hot water bath, but rather increases it, and does not interfere with the respiration like the steam bath or Turkish bath. The body can endure its influence for a much longer time, and a much higher temperature can be applied. It can be used for infants, and permits of easy application to a part or to the whole body. Sufferers who are willing to resort to almost any expedient to relieve the intense pain of these diseases, will ascertain the efficacy of the recommended cure by giving it a trial.

Is Carbolic Acid Poison When Pure.—Hamberg has ventured to assert that pure carbolic acid is not a poison, and that the poisonous properties of ordinary commercial acid is due to impurities in it. To this view Husemann takes exception, and publishes the results of a series of experiments made with rabbits, in which all specimens of carbolic acid acted as poison, whether taken into the stomach or injected into the circulation.

Laxative Mixture.—Prof. Lindsley says the best remedy he has ever tried in habitual constipation, is to take a half drachm of Epsom salts, dissolved in half a pint of water—adding ten drops of Elixir of Vitriol—*one hour before breakfast.* The smaller the dose the better, provided it will operate. It may be taken for weeks till a cure is effected.

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SAN FRANCISCO:

Saturday, Jan. 11, 1873.

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THE RURAL ALABAMIAN.—We have received the December number of this excellent agricultural monthly. It is published at Mobile, where the climate is more nearly like that of California, than any point north, where similar journals are published; hence, we find it treating of farm and horticultural products more nearly in conformity with our own views, and therefore always interesting. It is a valuable and cheap publication, at two dollars a year.

POSTAGE ON SEEDS, BULBS, ROOTS, ETC.—Our readers will be glad to learn that both the Senate and House of Representatives have passed a bill reinstating the old rates of postage on seeds, bulbs, roots, plants, etc., for which there has been so much clamor of late in consequence of the rulings of the Postmaster-General. The amendment passed permits the passage of four-pound packages through the mails, as formerly, at the postal rate of two cents for four ounces. The act is to take effect immediately; but it will not take effect unless the Postmaster-Gen. is pressed to send instructions at once to the postmasters of the country directing its enforcement; for postmasters cannot act without instructions, and the issue of these is often delayed months after an act of Congress goes into effect, such is the red tape machinery of the Department.—*Rural New Yorker.*

CHANGE OF TIME.—It will be seen that the time of the meeting of the Vine Growers' and Wine and Brandy Manufacturers' Association has been changed from the 15th to the 20th of January. This has been done so the Vine Growers may attend the annual meeting of the State Agricultural Society, which comes on the 22d., as will be seen by advertisement in another column.

ON FILE.—A Correction of Corrections, C. S. M.; Alfalfa, G. F. P., Visalia.

Barley.

John Bull has an idea that English barley is superior for ale. But he has the same conceit of English hops, which are manifestly inferior for all purposes, to American hops. If hops in England escape the damaging showers of harvest time, they lose half their strength in the kiln-scorching necessary in that humid climate. Hops in the bale have a blotched and damaged look. The hops of California are without a speck of discoloration. In the bale they show the same light and delicate gray-green that Nature gives them when ripened on the vine. The strength of our hops is double, and English brewers who measure it for use in equal bulk with their own, say it makes ale too bitter. Our own brewers are mostly foreigners, and they fall into the same error. They even import extra looking hops from England, under this mistaken impression. We venture to predict that hops grown in our foothills will soon be sought by Englishmen for the superior delicacy of the ale they will make.

We believe also that our ordinary barley will make better ale than the choicest grains of England. For our sun gives perfection of ripening, which the ever murky sun of England can never impart.

Tennent's ale is made of a peculiar grain called Ball barley. It Ball barley do so well in that climate, it is certain to do better here. And it is equally certain that with the same care in selecting choice grain and hops, this sunny climate and dry atmosphere will make and ripen ale to such perfection as England cannot approach. Messrs. Paddon & Son, English brewers, have proved this at their new brewery on Folsom St., San Francisco, and the Grand Hotel gives it unqualified endorsement. Not to be behind in the quality of our barley, Sam Brannan has sent to England for a quantity of Ball barley, which he is preparing to cultivate at Calistoga, He has a perfect conviction, from practical tests, that we can make better ale at home than we are importing, and his usual public spirit prompts him to aid the enterprise.

We want a home market for barley; and if we succeed in ousting English ale and in getting their India trade in malt liquors, barley will be our most profitable crop to the farmer, and by reason of the manufacturing industry it will inaugurate, it will be the most desirable grain we can cultivate for the welfare of the State. What we mostly want is industrial employment. It is the only anti-hoodlum remedy that will save us from impending demoralization. Let us awaken to the pressing necessity of this change of policy. The well known profits of brewing on a large scale ought to stimulate capital to invest in this great enterprise.

Testing the Vitality of Seeds.

Where large quantities of valuable and costly seeds are to be purchased, it is always better to obtain a few at first and fairly test their vitality, as it will often save a great deal of vexation and no little expense. The following are among the best modes of cheaply testing the vitality of seeds. Sow a few in a box or florist's pot of warm, light, sandy soil, and keep it warm and moist—not wet—and expose to the sun away from cold blasts of air and they will soon sprout and grow if they possess vitality.

By counting the seed when sown, and then the number that grow, the proportion of living to dead seeds can be approximately ascertained, and therefore the quantity of seeds to be purchased can be easily calculated. Onion seeds soaked for 10 or 15 minutes in cold water and then gently simmered or even boiled half an hour will begin to germinate.

Indian corn, peas, beans and numerous other seeds, soaked four hours in a tepid solution of chloride of lime and water, mixed in the proportion of one fourth of an ounce of the lime to a gallon of water, and then sown in the ordinary way, have frequently been known to throw out germs in 24 hours. As a general rule, soaking seeds in tepid water from 24 to 48 hours, and then coating them with ashes or plaster, will hasten the germination of most dry and hard seeds.

CATALOGUE.—We have received the Fall Catalogue of 1872, of the Star Nurseries of Harris & Sommer, Quincy Illinois. It contains an extensive and varied list of fruit, forest, shade and ornamental trees.

American Tea.

It may interest California agriculturists to learn that there is an association East which has for four years past been making experiments in several States, with the tea plant.

Without giving to the public any details of their experience, it is now announced by a newspaper man, that he has visited a tea garden of the association in Crawford county, Iowa. The Superintendent has been silently cultivating tea plants on a broad scale, without being observed by the neighbors, who, by-the-by, are not very near his farm.

He observed that every tea shrub was grafted, and he learned that a hardier plant which grows about there has been used for stock upon which to engraft slips of China tea shrubs. The grafts take readily, and thus treated, they have passed unharmed through three winters of great severity. The plants are exceedingly vigorous, and the leaf crop is very luxuriant.

The tea that has been made is not like any known varieties, which is attributed to American manipulation. But it has the Chinese flavor improved. We are not advised if irrigation is used. There appears to be no trouble in getting children to learn leaf-picking. Nor is there a doubt that tea-making will pay better than any other production at present in that county. The name of the stock-plant is not given. But we know that the Alleghany forest range (for a length of 1,000 miles through all Pennsylvania and Virginia and beyond) has an undergrowth of a species of wild tea-plant whose flowers are as fragrant as the Chinese tea-plant. Its seed is a small oleaginous nut exactly the same. We know that it grows where snow lies on it for 90 days in winter and we also know that tea has been made of it, on a considerable scale, in Northwestern Pennsylvania for the past ten years. It is used for mixing with weak China teas, to which it adds double valuation. This is probably the stock-plant.

We cannot answer for Iowa. But we are sure that the tea-plant of China and Japan needs no grafting on any other stock in California. It is true that, so far, experiments have failed of success. But the failure has been due to fortuitous circumstances, and not to either our soil or our climate. Herr Schnell's tea garden near Placerville grew vigorously. But the water from the miner's ditch, deposited a rigid ring of mineral around the shrubs, which throttled and destroyed them in the midst of most luxuriant prosperity. Let us not say, on this favorable experience, that tea culture is a failure past redemption. Rather let us replant; having faith that California teas like California wines will, in our day, make favorable impression in the markets of the world.

Fruit Growing in Nevada.

A call from Mr. F. A. Herring, nurseryman of Forbestown, Butte county, puts us in possession of interesting facts in relation to the success of fruit growing in our adjoining State on the east, Nevada. Mr. H. has been largely engaged in sending all the common, hardy fruit trees over the mountains, for the last three or four years, filling orders for apple, pear and cherry trees from every section of that wide country.

Three years have brought the trees into bearing, and tested the conditions of the climate for their production of all the hardy fruits to that degree as to warrant the planting of orchards extensively. In some of the lower valleys, frosts occasionally occur doing slight damage; but on what are called first and second benches above the lower valleys, both soil and climate seem as well adapted to the production of the fruits named as any portion of the eastern or northern States.

In Carson Valley, which lies directly under the snowy drippings of the eastern caves of the Sierras, they are sometimes vexed with late, spring or summer frosts; but last year a thousand or more trees, old enough to bear, produced fruit abundantly; whilst further away from the snowy belt of mountains they enjoy sufficient immunity from frost, from spring to autumn, to render fruit growing successful and profitable.

Californians must bear this in mind, and not be surprised if in five or ten years from this, some of our best keeping winter apples are brought to us from east of the Sierras.

Farmer's Union.

We would call the particular attention of the farmers of the State to the Report of the meeting of the Board of Directors of the California Farmer's Union in another column. It does seem to us that much good can be effected; that now is the auspicious time for action, and that a united and determined movement will result in large benefits to individuals and the State at large, and we earnestly invite a general coöperation of the farmers of every section thereof.

Let clubs be formed in every county, and parts of counties wherever most convenient for 20 or 50 farmers to assemble; let us do as farmers are doing in every Eastern, Northern and Western State of the Union, act in unison and for their and our own interests; for when the farmer's interests are subserved all others prosper. The grand movement is now inaugurated and it only needs the hearty coöperation of intelligent men to produce a revolution in the mode of disposing of our agricultural products, and which will keep annually, millions of dollars in first hands, where it should be kept, rather than go to the pockets of a class of men notoriously subsisting upon the earnings of the laboring farmer.

Blank forms for Constitutions of Farmers' Clubs, can be had free of cost by sending to I. N. Hoag, Secretary of State Agricultural Society, Sacramento, and no time should be lost, in talking the subject up among neighborhoods of farmers, until it shall result in complete organization, and coöperation with the Central Union Club. Secretaries of clubs will please send us reports of proceedings for publication.

Col. Younger's Letter.

We publish in this number a letter from Col. Younger, in defence of the purity of the pedigree of his famous short-horn stock, which had been questioned by certain parties, and evidently for certain reasons or upon mistaken grounds. We invite the attention of all interested in the growing of fine stock on this Coast, to the letter, as we think the matter of pedigree has been made perfectly clear, establishing the fact of the stock having originated from as pure blood as is found in the United States.

Col. Younger in his letter refers to a certain letter received from Mr. Abraham Van Meter; also to a certificate from Mr. B. F. Van Meter, and a letter from Mr. G. N. Swezy, of Marysville, all having a direct bearing upon the subject. We have personally seen and examined these letters and certificate, and know them to be correctly quoted.

The whole question seems to have been hinged upon the simple mistake of substituting the name of T. E. Talbott for John Talbott. If Mr. Van Meter knows of any other "Lucky Lass" than the one from which this fine stock originated, it is his duty to point her out, or show where she ever had an existence. We are satisfied no better or purer blood runs in the veins of the short-horns of this State than is found in the stock of Colonel Younger.

Silk at Calistoga.

Mr. R. Bonhomme the lessee of the fine mulberry plantation of Sam. Brannan, Esq., at Calistoga, is making all needful additions, alterations and improvements to the buildings to be used the coming spring for the growing of silkworms. It is the intention of Mr. Bonhomme, to demonstrate the entire practicability of silk growing in that locality as a paying industry, and we believe if any man can do it he will.

We hope, however, as the surest guaranty of success, that he will commence the feeding as early in the spring as it will be possible for him to obtain leaves; for we have no faith in attempting to grow silkworms successfully in the low, hot valleys of the State after the middle of May. In no country in the world is the growing of the silkworm made successful through the entire season. and why it was ever conceived that California could be made an exception to the rule, and grow worms in the heat of summer, we never could understand. We wish Mr. B. complete success.

THE SANTA BARBARA PRESS.—This excellent weekly comes to us published with a large amount of interesting reading; it is among the very best of our California exchanges; and takes the proper course to make itself locally popular, by speaking a good word, or rather many of them, of the resources and advantages of Santa Barbara county, as a home for the immigrant, and the resort of the invalid. The *S. B. Press* should receive a generous support.

The Curious in Nature.

In previous numbers of the RURAL we have, from time to time, given illustrations and short bits of natural history setting forth the peculiar traits or habits of instinct or reason, call it what we will, of some of the smaller of the animal creation, whereby they are enabled to construct their peculiar habitations or provide themselves with food in some remarkable manner.

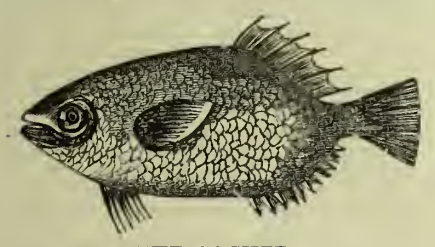
We have given the ant-lion; ants at home; carpenter-bee; tailor-bird, etc., and now we continne the series by introducing to our juvenile readers a short history of the

Archer Fish.

This little fish, seldom exceeding six inches in length, is known to naturalists as the *Texotes jaculator*, found in some of the fresh waters of Java and a few of the other India islands. Its appearance would indicate nothing remarkable except a slight peculiarity of form, compared with most fishes. But that which gives it peculiar interest is the manner it procures its food. It lives upon flies and other winged insects that swarm among the aquatic plants of the waters it inhabits.

Instead of leaping from the water for its prey, which few fish can do to more than once or twice their length above the snrface, this little artillerist brings its mouth only to the surface and there ejects or shoots, a single drop of water from its throat and mouth, with unerring aim, and with such force as to disable and knock down into the water any fly or insect that—as a sportsman would say—"it draws a bead on," when it becomes an easy prey.

The artillerist—for this is a more appropriate name than archer, as it uses neither bow



THE ARCHER.

nor arrow—is easily domesticated and seems to delight in showing its powers, for which reason it is often kept as a pet, in large open vases, and loses no opportunity in throwing its shot at any unfortunate fly presenting itself, or forced within its reach; its aim is almost unerring at any distance less than three feet, and the effect perfectly stunning.

Hop Intelligence.

From London *Mark Lane Express*, we gather the following:

BOROUGH, Monday, Dec. 2, 1872.—Our market continues extremely firm, and the advance quoted in our last has been fully maintained. The demand is still active, and stocks are in a much smaller compass. Continental markets are firm. Latest advices from America quote a general advance from 3 to 5 cents per lb., with an active demand, and indications of a still further rise. Sales are

	cts.
Mid and East Kent	19½@34
Weald of Kent	16½@26¾
Sussex	17 @23
Farnham and country	20½@29

THOS. WILD AND CO.

CANTERBURY HOP MARKET, (Saturday last.)—The trade has again been brisk. The stock of hops in the country has not been known to be so small as at present for many years at the same period. We have an increase demand for choice East Kents, prices advancing steadily.

WORCESTER HOP MARKET, (Saturday last.)—Our market is very bare of hops, and on this acconnt alone the business doing is small. The general demand is very active, and prices have still further advanced all round. There seems to be every probability of further rise in values, as the stocks are small of Kent and Sussex. The foreign markets are also much dearer, and rising.

FOREIGN HOPS.—The imports of foreign hops into London last week amonnted to 132 bales from Rotterdam, 100 bales New York, 1,395 Antwerp, 606 Hamburgh, 194 Ostend, and 20 bales from Boulogne.

ACKNOWLEDGEMENTS. — We are indebted to Hon. Senator Cole for numerous works of interest and merit, including: Report of Department of Agricultnre, 1870; Messages and Docufor 1871-72, statistics of population with census of 1870; Diseases of cattle in the United States, Geological survey of Wyoming and contiguous Territories, etc., etc.

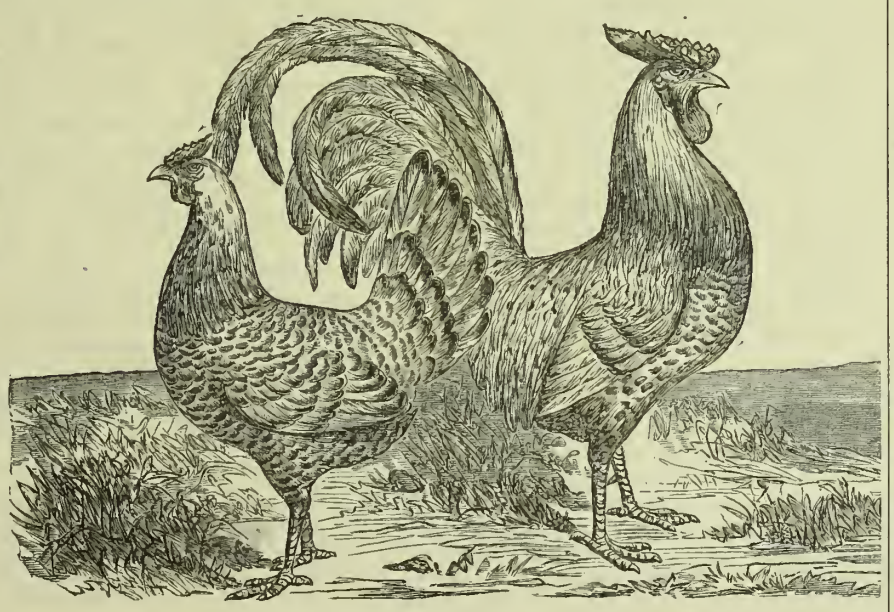
Adobe Lands for Wheat.

Whenever adobe land can be put in suitable condition for wheat, there is no question as to its value for a continued production for a great number of years with very little deterioration. The only difficulty that attends their use as wheat lands is found in the preparation of the soil for the seed. It is always said, that, if the ground is only *just right* for the seed, it is the best land in the world.

It must be neither too wet nor too dry; for in the one case it becomes a perfect mortar bed, unsuited to any kind of vegetation; and in the other so hard that it can only be plowed except by throwing it up into lumps and clods, equally unsuited to successful seeding or the operations of harvesting.

That a thorough pulverization of adobe land to a dopth not exceeding four or five inches, or to a depth only to which it can be made thoroughly fine, is the best preparation, admits of no doubt. A deeper plowing than this, in which the subsoil is but imperfectly pulverized and left open and porons, causes the soil to dry down to the bottom of the furrow slice, in consequence of the capillary attraction of the soil being destroyed by its undue porosity.

It is getting to be now very generally understood here—as it long has been in England, where they raise more wheat to the acre on old lands than we do or can—that soils can easily be made too open and porous for wheat, and solely upon this principle of capillary attraction.



SILVER SPANGLED HAMBURGS.

It is well known that fluids will rise higher by attraction, in small tubes than in large ones, and just in proportion as soils possess their infinitessimal number of small tubes, cells or pores over large ones, so is their power to draw up moisture from below increased.

Adobe soils plowed to a depth of ten or twelve inches, are left at bottom too open and porous, from the impossibility of completely pulverizing the soil to that depth. We therefore maintain that a lesser depth, even to a furrow of no more than four or five inches, rendered perfectly friable and reduced to a fine tilth, is a better depth of furrow for wheat upon adobe lands, than any greater depth imperfectly pulverized, as it always must be with our present available implements for the purpose; as no harrow can penetrate a greater depth than four or five inches.

Ross Browne Before the Farmers.

Mr. J. Ross Browne will address the Oakland Farmiug Club, Friday evening, January 10th, on the Agricultural Interest of California, including Irrigation and Swamp land Reclamation. The annual election of officers of the Club also occurs on the same evening. All lectures and meetings are free in this Club.

ALUM IN BREAD.—From time immemorial bakers have been in the habit of using alum in bread for two purposes, promoting whiteness and preventing sourness. If thero is auy object in detecting its presence in the bread we use, a correspondent, V. D. L., of Walla Walla, writes, that by pressing a cold knife into a loaf of hot bread, or a hot knife into a loaf of cold bread, if there is alum in it, it will adhere to the knife; if no alnm, the knife will come out as clean as it went in.

Silver Spangled Hamburgs.

The accompanying cut represents a pair of Silver Spangled Hamburgs, imported by Mr. G. B. Bayley, of Oakland, who finds them a most useful and important denizen of his poultry yard. He has bred them for several years successfully and with little trouble.

The hens are inveterate layers, the pullets in the first year frequently laying 215 to 230 eggs, in fact their propensity for laying is almost continuous from one molting season to another—and the eggs are large when the small size of the bird is considered. For a fowl combining the most perfect form of beauty, with so many desirable and useful qualities they cannot be excelled, and they are peculiarly adapted to the farm ranches of the Pacific coast. For a gentleman's lawn, no other fowl can show off as well, and they very soon become pets of the household.

Tamarind Tree.

Can the tamarind tree be grown in California? What kind of bush or tree does it grow on? Will the seeds, as we sometimes find them in the pods in confectioners' shops, grow if planted? These are the queries of one of our readers, which we will answer thus: Though generally considered a tropical fruit, the tree can undoubtedly be grown in California to perfection, as they are successfully grown in some of the Southern States.

As far north as Virginia they have attained a hight of 25 feet, with a trunk of 18 inches in circumference at the ground in eight years, from the seeds. They are ranked among the truly desirable ornamental trees for the lawn or roadside, being beautifully symmetrical in growth, with a trunk attaining to a lofty hight, and crowned with wide spreading branches of delicate foliage and should be introduced amongst us. From their fruit, which is borne abundantly, is made a cooling and refreshing beverage, and a delicions conserve. The tree can be grown from the seeds, procured from tho pods, previously to being conserved.

Pure Bred—Full Blood.

At the recent convention of Short-Horn Breeders of the United States and Canada convened at Indianapolis, Nov. 27th, the attendance was very large, there being over 125 breeders present. In the course of discussions had, Mr. Miles called up his resolution defining the meanings of cattle nomenclature, which after discussion was adopted, as follows:—

"*Resolved*, That we adopt the following definitions:

"*Pure-bred, Full-blood and Thoroughbred.*—Animals of a distinct and well defined breed, without any admixture of other blood.

"*Cross-bred.*—Animals produced by breeding together distinct breeds.

"*Grades.*—The produce of a cross between a pure-bred and a 'native.'

"*High Grade.*—An animal of mixed blood, in which the blood of a pure-bred largely predominates."

It is important that the same be adopted in California, as well, in regard to sheep and the mohair goat as to cattle; then purchasers know just what they are buying, and can bring the seller square to his mark, compelling him to guarantee the animal to be just what he sells it for. We believe that among our best breeders this nomenclature is now recognized, and buyers should understand it also; for buying a high grade animal does not secure to the purchaser a full blood.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Dec. 31st, 1872.

CHURN.—James W. F. How, Douglas Co., Oregon.

SAW-SHARPENING SWAGE.—Alfred J. Hinds and James S. Howe, Santa Cruz, Cal.

THRESHING MACHINE.—James T. Watkius, Santa Clara, Cal.

PORTABLE WATER HEATER.—John S. Woolsey, Gilroy, Cal.

MINERS' SAFETY CANDLESTICK.—Theodore A. Washburn, Gold Hill, Nevada.

BED BOTTOM.—David P. Mahan, Antioch, Cal.

REISSUE.

HYDRAULIC MINING APPARATUS. — Frank H. Fisher, Nevada City, Cal.

By Special Dispatch, Jan. 7th., 1873.

FOR WEEK ENDING DECEMBER 24TH, 1872.

SEWING-MACHINE.—John H. Mooney, S. F., Cal.

ORE-CRUSHER. — William P. Hammond, assignor to himself and Henry Mygatt, Napa, Cal.

LOADING AND UNLOADING WAGONS.—Richard Threlfall, Centreville, Cal.

STEAM BOILER.—Frank A. Huntington, S. F., Cal.

CUTTING TOOL FOR TURNING LATHES.—Charles Rahsskopff, S. F., Cal.

FEATHERING PADDLE WHEELS. — John Ch. H. Stut, S. F., Cal.

DEVICE FOR LUBRICATING SHAFT BEARINGS.—Jerome Haas, Stockton, Cal.

———*The pstents are not ready for delivery by the Patent Office until some 14 dsys after tbe date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnisbed hy DEWEY & Co., in the shortest time possible (by telegrsph or otberwise) at tbe lowest rates. All pstent business for Pscific coast inventors transscted with greater security and in mucb less time tban by any other agency.

Australian Rye Grass.

We have received the following from Cloverdale under date of Jan. 1st, 1873:

EDITORS PRESS:—Will you please give information through your paper in regard to the growing of Australian rye grass, wLether adapted to our dry soil and a permanent grass like alfalfa; can it be grown on hill lands, and you will greatly oblige SUBSCRIBER.

Rye or Ray grass, is the *Solium perenne* of botanists, two varieties of which are grown extensively in England, the "Italian" and the "Improved." The Italian is said to differ considerably from the English or "Improved," in coming earlier to maturity, has larger leaves, is of a deeper green and grows to a greater hight and better adapted to a dry climate. It is greedily eaten by cattle, green or dry and yields fifty per cent. of dry hay.

The "Improved," which was early introduced into Australia—hence its name here—possesses several desirable properties, which recommended it to the attention of cultivators, the principal of which are, its adaptation to a great variety of soils, the facility with which it is propagated, by reason of its seeds being produced in abundance, and their uniformity in riponing and the fibrous structure of its roots.

The latter, however, does not fit it eminently for culture in California except upon ground naturally moist. It has no deeply descending roots like the clover or alfalfa, and cannot stand tho long drouths of our summer like alfalfa; but where the climate is moist or fogs are common in summer, and the soil is rich, enormous crops are produced for hay, two or three in a year; or if devoted to pasturage, yielding an immense quantity of feed, and producing a turf so compact and firm as to sustain the weight of cattle with little or no injury to the roots even when the ground is saturated with water.

In commencing with this grass, we would recommend its culture on a small scale only, by way of experiment. The seed at the rate of 16 or 18 pounds to the acre is sown in winter or spring on land prepared as for wheat, but not sown with any other crop. The seed should be lightly brushed or rolled in, or brushed and then rolled. The first summer will show a fair yield of hay as a single cutting, and the next year the product will be more than doubled. In suitable soils and a warm moist climate, it makes a permanent and valuable forage grass.

THE NAPA REPORTER, of Jan. 4th, has a full column article under the heading of "A Day among the wine-makers of St. Helena and vicinity." It is an interesting expose of the condition of the wine interest in the world-renowned Napa Valley. The *Reporter* is a paper alive to the interests of that portion of California it represents.



Do the Angels Ever Come.

BY E. H. TAYLOR.

O! say do you think the Angels come
And hover around our beds,
And look with eyes of tenderness
Upon our pillowed heads?

Do they lay their hands upon our cheeks,
Do they kiss our eyelids down,
Do they brush from our fevered brow
The tangled locks and frowns?

Do they ever slip beneath our heads,
Their spirit arms, and hold
The weary ones of earth awhile
Close, with a fervent fold?

The Management of our Homes.

A Woman's Ideas.

A lady correspondent of the *Country Gentleman*, writes as follows:

There are a good many sermons preached now-a-days—a good many articles written for newspapers and magazines, and a good deal of fireside conversation—from the text that the chief duty of woman is to render her home and herself attractive to her husband, father or brother. No doubt most women make this their crowning delight; but when duty is the subject under consideration there is another phase of the matter which is not often discussed. Is it not also the duty of husbands, fathers and brothers to make home pleasant for all its inmates?

A small portion of the day is usually passed in the house by the men or boys of the family; their pursuits lead them away from the house excepting at meal times, and in the morning and evening, while woman's whole life, or at least the greater portion, is absorbed in housekeeping, and it does not seem inconsiderate that her tastes, desires and convenience should be more closely consulted than those of the men.

There is in many communities a strong tendency to regard home as only a resting place for the men of the family, and as long as they are refreshed and pleased—their peculiar tastes consulted and ministered to—there is little thought about the happiness or comfort of those who stay there day in and day out. Of course there are many individuals who cannot be classed under this head—many men who do consult their families' peculiarities, and arrange all matters with due heed to their pleasure. Yet all of us know many heads of families who look upon the ordering of household affairs as pertaining to them only. They build to suit their own convenience and taste, arrange the grounds as their fancy dictates, and although they may pay some slight deference to their wives and daughters' wishes, still think a great deal more of their own views on such subjects.

The house ought to belong to the wife; to her should be mainly given the planning, the arrangement of the furniture, the laying out of the grounds and the ordering of the details. She knows from experience far better than a man can know, what arrangements add the most comfort to her housekeeping; and what furniture is most desirable. It would be no more out of her line to arrange his warehouse, office or counting-room, than for him to order the placing of her shelves and furniture. To her also should be left the arrangement of the flower beds and shrubbery. She must see them all day long, while her husband or father would only care for them a few honrs out of the twenty-four.

Then the homestead ought to belong to the wife in fee-simple; surely she has a right to the home in which her children were born and reared; and it ought to be assured to her, so that the reverses of fortune, so frequently occurring in this country, would not take it from her.

I am no champion for woman's rights, excepting in the home. I have no fancy for the right to push my way to the ballot box, and vote for this or that politician; but I do desire that woman's home rights should be more clearly defined and maintained; and that men should give a woman as much freedom in the home as they take in their workshops or counting-rooms. All women feel a desire for this freedom, and if their comfort and pleasuro were once made the ruling spirit of the home; if they were only surè that they were free to do as they please in that place, they would rejoice to assume the care of it, and endeavor to make home more comfortable and happy to every one of its inmates, and would force the "Lords of Creation" to applaud their executive powers, and to appreciate the comforts of home under their administration.

To them also should be given the spending of the money devoted to housekeeping. If every man would pay his wife a weekly sum for housekeeping, clothing, etc., he would find that in nine cases out of ten her management of the funds would increase not only his comfort, but that of the whole house. If she is equal to the task of supplying and paying for the daily necessities of the home. If she is head manager, she will take pride and pleasure in making one hundred cents go a great way—much farther than a man could make a hundred and fifty go. She will also make calculations about the expenditure of the weekly sum, will lay by a certain amount towards buying such and such supplies in quantities; will learn that there is no economy in buying soap by the bar, starch or sugar by the pound. She will systemize her affairs, keep books—a day book and a ledger—and exhibit her well-kept accounts with pride and delight. The very fact that the expenditure of the money belongs to her, will sweeten her life, give new zest to her occupations and make her a happier and more contented wife.

Royal Homes.

Would you like to know how the town residence of the royal family of England appear to an American? If so, you may peep over our shoulder and read two sentences in a letter just received from an American cousin of ours who walked the streets of London for the first time about two weeks ago. "Buckingham palace, the town residence of the royal family and court, is a very unpretending structure of dingy yellowish stone, about as large as one of our average New York "blocks" and apparently built in a hollow square. It would not be very noticeable as a hotel in one of our fashionable watering-places. "The Prince of Wales lives in one of the detached buildings, a large brick house in a garden with a wall around it, but on raised grouud, so that it is plainly seen. A soldier in a red coat stands at an iron gate. It looks something as we at home would expect a blind-asylum to look."

Our cousin does not by any means wish to snub these royal homes. She simply wishes to give us an idea of how they appear to her eyes, and she adds a quiet comment that if she were a queen, or even a prince, she'd have at least an inviting and pretty place to live in, or she would throw up her situation. But then, you know, she saw these houses only from the outside, and she had not yet seen the other royal residence at Windsor and on the Isle of Wight.

Besides, had the queen put her royal head out of the window and called to her to come in, our cousin might have written a very different account.

How Not To Do It.—Did you ever see a woman throw a stone at a hen? It is the most ludicrous scene in every-day life. We recently observed the process. The predatory fowl had invaded the precincts of the flower-bed, and was industriously pecking and scratching the nutritious seed or the early worm, blissfully unconscious of impending danger. The lady now appears upon the scene with a broom. This she drops and picks up a rocky fragment of the Silurian ages, and then makes her first mistake—they all do it—of seizing the projectile with the wrong hand. Then with malice aforethought, the further blunder of swinging her arm perpendicularly, instead of horizontally—thereupon the stone flies into the air, describing an irregular elliptical curve, and stikes the surface of the earth as far from the hen as the thrower stood at the time. At the second attempt the stone narrowly missed the head of the thrower herself, who, seeing that any further attempt of the kind would be suicidal, did what she might have done at first—started after the hen with her old and familiar weapon.—*Ex.*

Sensible View of the Woman Question.—The *Watchman and Reflector* has been watching the women, and thus reflects on them; "They prefer slop-work and starvation to good homes and plain sewing in the best of families." It says:

"We want a good 'plain sewer,' to come to the house for a few days, at good wages—good food, good bed, good air; and is not to be found. We spend hours—yes, days, in a fruitless search. A grade higher we want a dress maker to come to the house, on the same conditions; same fruitless labor! We want some one to do housework; and there is an opportunity to lay up nearly all the wages, and have a comfortable home; but no use—we look in vain! The truth is they prefer the course they are pursuing. We leave it to say, if our outline is not perfectly correct. We are some what saving of our sympathy on some phases of the women question, until our houses are well supplied with competent persons to attend to all the departments of work. When the day comes that it is easy to find girls and women willing to come to our houses and work for good wages, we shall have more faith in the plea of destitution and hardship.

Clarinda's Nose.

Why is it that poets continually delight in chanting the praises of lovely cheeks, lips and eyes, and ignore the nose so completely, when no feature plays a more important part, and occupies a more conspicuous position in the architecture of the face? What would be the beauty of the human face unadorned with the important organ of smelling? A face without a nose would be unpoetical, in the gaze of admiring eyes, as a comet without a tail. Ruby lips would remain unkissed, rosy cheeks would never be admired, and the beauty of bright eyes would remain unseen were there no nose about which to group them. And yet who ever saw in the opening chapters of a modern novel even so much as a complimentary allusion to this important point in the center of the human countenance. Clarinda's eyes are blue as the summer skies, her lips and cheeks are like cherries and roses, her waving tresses of golden hair are like ripples of yellow sunshine, her neck and arms are like marble and alabaster, or white and pure as the newly fallen snow, her teeth are like pearls and her ears like transparent pink shells; but Clarinda's nose is ignored altogether; who ever heard anything about Clarinda's nose? But, nevertheless, Clarinda's nose is of considerable consequeuce, and were Clarinda by any misfortune to mar its faultless outlines or to lose it altogether, there would be little said in praise of her other features. And thus it is that one little fault in our lives, one dissolute habit, one false step from the way of honor mars and defaces the beauty of all our virtues, and is remembered when the recollection of all our good deeds has forever passed from the minds of our fellow men. When the tempter comes with his forbidden pleasures, when he presents the intoxicating draught to your lips; be thoughtful ere you drink the contaminating potion. Think of the beautiful Clarinda and her faultless features and how hideous she would look with an ill fashioned nose.

Who is Old.—A wise man will never rust out. As long as he can move or breathe, he will be doing for himself, for his neighbor, or for posterity. Almost to the last hour of his life, Washington was at work. So were Franklin and Young, and Howard and Newton. The vigor of their lives never decayed. No rust marred their spirits. It is a foolish idea to suppose that we must lie down and die because we are old. Who is old? Not the man of energy, not the day laborer in science, art or benevolence; but he only who suffers his energies to waste away and the springs of life to become motionless; on whose hands the hours drag heavily, and to whom all things wear the garb of bloom. Is he old? should not be put; but is he active? can he breathe freely, and move with agility? There are scores of gray-headed men we should prefer, in any important enterprise, to those young men who fear and tremble at approaching shadows, and turn pale at a lion in their path, at a harsh word or frown.

Girls.—It is the power of young girls to make themselves very dear and very useful to their married frieuds, and to render them such services as are beyond all price. In times of sickness and of sorrow, the sympathy of a beloved female friend are among the best of heaven's gifts; while she who ministers to the afflicted, is as much blessed as blessing. Let no young person stay away from a friend who is ill or in affliction, from the fear that that her inexperience will render her company undesirable; all who have strong affections, and a ready power of sympathy, can make themselves acceptable and, in endeavoring to do so, will increase their own happiness. Never let mere convenience induce you to stay at the houses of persons whom you cannot esteem; by so doing, you take on yourself the duties of a friend, without having the sentiments that would make their discharge easy.

Laugh and Grow Fat.—Laugh heartily whenever you have an opportunity. There is not the remotest corner or inlet of the minute blood vessels of the body that does not feel some wavelet from the real convulsions produced by hearty laughter shaking the inner man. The blood moves more lively, probably its chemical, electric, or vital condition is distinctly modified—it conveys a different impression to all the organs of the body, as it visits them on that particular mystic journey, when the man is laughing, from what it does at other times.

And thus it is that a good laugh lengthens a man's life by conveying a distinct and additional stimulus to the vital forces.

Why is coal the most contradictory article known to commerce? Because when purchased, instead of going to the buyer, it goes to the cellar.

Sow an act, and you reap a habit; sow a habit, and reap a character; sow a character, and you reap a destiny.

Young Folks' Column.

What a Farmer's Boy Should know.

Every farmer's boy should know how, sooner or later—

1. To dress himself, black his own shoes, cut his brother's hair, wind a watch, sew on a button, make a bed, and keep all his clothes in perfect order and neatly in place.

2. To harness a horse, grease a wagon, and drive a team.

3. To carve and wait on the table.

4. To milk the cows, shear the sheep, and dress a veal or mutton.

5. To reckon money and keep accounts accurately, and according to book-keeping rules.

6. To write a neat, appropriate, briefly expressed business letter, in a good hand, and superscribe it properly, and write contracts.

To plow, sow grain and grass seeds, drive a mowing-machine, swing a scythe, build a stack and pitch hay.

To put up a package, build a fire, white-wash a wall, mend broken tools, and regulate a clock.

There are many other things which would render boys useful to themselves and others—these are merely specimens. But the young man who can do all these well, and who is ready at all times to assist others, and useful to his mother and sisters, will command more respect and esteem than if he knew merely how to drive fast horses, smoke cigars and play cards.

Home Amusement.

Many very pretty chemical experiments may be made by the young people, which will amuse and astonish those around them. As for instance, with so simple an article as red cabbage, a very beautiful effect can be rendered in the following manner: Cut three leaves of cabbage into small pieces, and after placing them in a basin, pour a pint of boiling water over them, letting them stand an hour; then pour off the liquid into a decanter. It will be of a fine blue color. Then take four wine glasses; into one put six drops of strong vinegar; into another six drops of solution of soda; into a third a strong solution of alum; and the fourth remain empty.

Fill up the glasses from the decanter, and the liquid poured into the glass containing the acid will quickly become a beautiful red; and in the glass containing the soda will be a fine green; that poured into the empty one will remain unchanged.

By adding a little vinegar to the green, it will immediately change to red, and on adding a little of solution of soda to the red it will assume a fine green; thus showing the action of acids and alkalis on vegetable blues.

"Little Mother."

She is such a mite of a body! Why, even on tiptoe she is hardly as high as the door-knob; yet, mite that she is, she would put many a grown-up girl to shame.

"Why are you getting up so early, little mother?" said I one morning, opening my sleepy eyes at the sound of a pair of small feet pattering about the floor.

"Oh! I'm going to help mamma get breakfast," said the little woman, and when I went down stairs, there she was, with a great apron that reached almost to her toes, tied round her waist, putting the forks and napkins in their places.

"You needn't think I'm going to play every minute, and let poor mamma do all the work!" she says with dignity, when Patty Green, the little girl next door, teases her to come out and swing; that is, if it happens to be when she has that apron on, for at other times nobody likes to play better than this same mite of a woman. When the other day I met Cerulia and Sapphira Jones, out making calls in their very Sunday best, and found their "poor mamma" in the kitchen ironing their ruffled skirts, I couldn't help wishing that they had heard her say it.—*Hearth and Home.*

What a Pity!" a friend said to me, as we were walking along the streets of a busy, hustling town. I turned my eyes toward the object which had caused these words, and could not help repeating them. "What a pity!"

And this object we both saw was a large boy—or perhaps I might term him a very *young* man about sixteen years old, with a disgusting black pipe in his mouth, puffing and blowing the smoke from his face at a terrible rate. A glance at him sufficed to tell me that he was used to the business, and that both tobacco and liquor were articles with which he was perfectly conversant. This sight, with a loud, horrid oath uttered just at the the same time, told the whole story of his degredation. What a pity. Yes, it was a pity; and the poor, misguided boy was a pitiable object. May the glad day come when such terrible vices shall be known no more.

The Secret of Success.—Elihu Burritt said, "Boys, you have heard of blacksmiths who became mayors and magistrates, etc. What was the secret of their success? Why, they picked up pins and nails in the street, and carried them home in their pockets. Now, you must pick up thoughts in the same way, and fill your mind with them; and they will grow into other thoughts. The world is full of thoughts, and you will find them strewed in your path.

DOMESTIC ECONOMY

Table Use of Oatmeal.

Oatmeal Breakfast Cake.

This is made of No. 2 oatmeal, with water enough to saturate it, and little or no salt. Pour it into a baking tin half an inch or three-quarters deep, shake it down level, and when this is done it should be so wet that two or three spoonfuls of water should run freely on the surface. Put it in a quick oven and bake twenty minutes. Eat warm. It will be as light and tender as the best "Johnny cake," or else you have wet it too much or baked it too long. This is one of the most accommodating baked dishes that can be made. It will do very nicely with a little longer time if the oven is not quite hot. If it will not bake there at all, pour it into a frying pan, cover it close and set it on the top of the stove where it will even bake in fifteen minutes.

For a hurried breakfast and a slow coal fire it is invaluable. Scarcely any wholesome thing in the whole bread line can be prepared more readily. It can be made still thinner and baked quicker. It is good either crisp or moist. For emergencies alone every housekeeper will find it convenieut to be able to make the breakfast cake. Many use oatmeal mixed with buckwheat, wheat or corn for griddle cakes. For this use I prefer it cooked first. Take say one-half piut of the porridge or the mush, diffuse it in one quart of water aud add the wheat meal, sifting it iu aud stirring slowly.

Oatmeal Pie Crust.

A loug trial proves the thorough adaptability of oat meal for that purpose. Take No. 1 meal, if possible, wet with half its measure of hot water. It can be easily rolled thin enough; it will swell but little in baking. It is not so white as those pie crusts made of white flour, and to the unaccustomed eye not so attractive, though that is a matter of taste. To my notion they are far preferable, even in appearance to the crusts soaked in hog's lard, which here in the city have earned themselves the suggestive sobriquet of "scabs," and they are certainly far more wholesome than any shortened pie crusts whatever.

To avoid the unaccustomed appearance, however, tarts, pies, aud fruit and berry pies of many kinds can be without the upper crust or the upper crust can be removed after baking. Blackberry, raspberry, plum, peach, grape and many other kinds of pies can be made in this way. The crust bakes very quickly, so that auy kind of fruit that requires much cooking should be cooked before it is put iu. It also makes very pretty ornaments cut in various shapes with cake cutters, and laid upon the surface of tart pies; is agreeable to the taste, and very few persons would notice the difference when made without an upper crust. As people come to recognize its wholesomeness they will probably be brave enough to eat it openly.—*Science of Health.*

Beef Soup.

A correspondent of the *American Rural Home*, says: "I have eaten beef soup at some houses where it would be watery and tastless, evidently containing no vegetable but potatoes, and with little seasoning, which mixture I never could relish. But this is only a counterfeit of the genuine beef soup which is a delight to the epicurean. The way to make it is thus:

"Take a small joint of beef, (one which can be purchased for a shilling or fifteen cents is large enough,) and put in a kettle containing about four quarts of water—rain water is best if it can be obtained pure. Be sure to put it in while the water is cold, then put it over the fire, and let it boil for three or four hours. Then take about eight good-sized potatoes, four parsuips, two carrots, six or eight onions, and a small cabbage; after paring the potatoes and onions, and scraping the parsnips and carrots, chop the whole together, adding a little summer savory if it suits the taste, and put it iu the kettle to cook. If rice is preferred for thickeniug it must be boiled by itself and then added to the soup; but instead of rice, the white of an egg rubbed in flour until it crumbles into small pieces, is thought best by some; either is good. Soon after the vegetables are put in, add the salt and pepper, and let it all cook an hour longer, when it will be ready to serve. If any of the vegetables mentioned should be distasteful to one of the family it can be omitted, putting in more of another kiud, if thick soup is desired."

Ironing Without Heat.—A lady of experience says that much time and trouble may be saved by "ironing" without heat and flatirons. When rinsing the cloths, fold course sheets, towels and table cloths in the shape they are wanted, aud pass them through the wringer as tight as possible. Unfold aud hang to dry where the wind does not blow very hard. They will need little or uo ironing. The table cloths should be dipped in old, sweet, skimmed milk; this gives them a luster, and they need no starch.

Washing Fluid.—Dr. Quesneville, in the *Moniteur Scientifique*, describes a mode of washing which has been widely adopted in Germany and Belgium. The operation consists in dissolving two pounds of soap in about three gallons of water as hot as the hand can bear, and adding to this one tablespoonful of turpentine and three of liquid ammonia; the mixture must then be well stirred, and the linen steeped in it for two or three hours, taking care to cover up the vessel containing them as nearly hermetically as possible. The clothes are afterwards washed out and rinsed in the usual way. The soap and water may be reheated and used a second time, but in that case half a tablespoonful of turpentine and a tablespoonful of ammonia must be added. The process is said to cause a great economy of time, labor, and fuel. The linen scarcely suffers at all, as there is little occasion for rubbing, and its cleanliness and color are perfect. The ammonia and turpentine, although their detersive action is great, have no injurious effect upon the linen; and while the former evaporates immediately, the smell of the latter is said to disappear entirely during the drying of the clothes.

Fried Chickens.—Cut up the chickens neatly, lay them in a large panful of cold water half an hour, to extract the blood. Then drain and put in just enough boiling water to cover them, season with pepper and salt, parboil for twenty minutes. Fry crisp and brown some thin slices of salt pork. When the chicken is sufficiently parboiled, drain it from the water and lay each piece into the hot pork-fat. Dust over some flour, and fry the chicken a clear brown. When done on both sides, lay each piece on the platter, neatly, and place where it will keep hot but not dry. Now shake from the dredge box into the fat enough flour to absorb the fat. Do not stir till all the flour is saturated, then with a spoon stir smooth and pour in, little by little, enough of the water in which the chicken was parboiled which should be kept boiling—to make white gravy, you need to stir it all the time. When thickened and free from lumps, ponr over the chicken and serve hot.

To Clean Silver or Gold Lace.—Lay the lace smooth on a woolen carpet or piece of woolen cloth, and brush it free from dust, then "burn" alum, (that is, remove its water of crystalization), powder it fine, and afterwards sift it through a lawn sieve. Rub it over the lace with a fine brush, and it will restore its brightness, if it be not too much worn on the threads.

Arrowroot Biscuits for Invalids and Children.—Rub together three-quarters of a pound of sugar and the same weight of butter, until they rise, beat three eggs well and mix with it, then stir in two cups of sifted arrowroot and two cups of sifted flour, roll them out thin cut them with a buiscuit cutter, place them in buttered tins, and bake them in a slow oven.

A Convenient Dining Table.—The dining tables of the Oneida Community are made double, and the central part revolves; the dishes and articles that everybody has occasion to use are placed ou this revolving portion, and each one waits on himself, by turning it until the thing wanted is in front of him.

German Coffee Bread.—Take two teacup fuls of hop yeast dough, add two eggs wel beaten, tbree table spoonfuls of sugar, two o butter, mix well, roll out and place on buttered tin, spread a little butter on tbe top, sprinkle on white sugar, add cinnamon and set to rise; bake slowly.

Hyacinths in Sponge.

Charles Reese, of Enderby, Maryland, gives, in the *Country Gentleman*, the results of au experiment which he made last December, in growing hyacinths in sponge. Remembering the slow growth of the bulbs in glasses, often not coming into bloom until near spring, he pondered whether there is not some substance in the great laboratory of nature, more closely resembling the soft, warm bosom of the earth, than the hard, cold glass. The sponge suggested itself to his mind as possessing just the qualities required: "Soft, warm and yielding; power of capillary attraction perfect; porous, admitting freely the fruitful atmosphere through a thousand tiny apertures; powerful absorbent and evaporator of moisture, and besides all this, an animal substance, and doubtless filled with nitrogenous matters, which dissolving in the water, will act as fertilizers to the plants; or if they be not there in sufficient quantities, they may be placed in the water with the same result—liquid manure."

He took a large sponge, made incisions about three inches deep and two long, inserted bulbs in them, the sponge closing over their tops, permitting only the points to appear above the surface. He then placed the sponge filled with the bulbs in the top of a large vase, and filled the vase by pouring water through the sponge until about one-half the sponge is below the water. The water was slightly warmed, and being kept in a warm room was not allowed to become cold.

In two or three days the bulbs began to shoot their spires npward, giving promise of success, and in two or three weeks they were five or six inches high. About this time, in order to hide the unsightly appearance of the sponge, I scattered a few thimblefuls of rape seed over the surface between the bulbs, which sprang up almost immediately, and covered it entirely with a fine moss like mautle, adding greatly to the beauty of the experiment.

Desiring to give the knowledge and usefulness of the discovery and the enjoyment of its beauty, I now had it taken to my store in town, where it soon became an object of interest to great numbers of ladies who watched its progress almost daily, until the bright flowers, moro radiant than 'Solomon in all his glory,' unfolded their shining petals, filling the air with fragrance and astonishing every one with their unusually large size and perfect forms. The experiment was pronounced a complete success.

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Observations on the Culture of Silk in California. By I. N Hoag, of Sacramento. 1870. Pampblet, 33 pages. For sale by DEWEY & CO. Publishers of tbe Pacific Rural Press, San Francisco Post paid, 25 cts.

Cotton Culture; by J. B. Symon; with an additional chapter on Cotton Seed and its uses. 190 pages, 1868. Price, post free, $1.75, at this office.

How Crops Grow: by Johnson; A treatise on the chemical composition, structure and life of the plant, for all students of agriculture; with illustration and analysis. 394 pages; 1868. Post free from this office, $2.50.

American Grape Growers' Guide; by Wm. Chorlton (N. Y.) 204 pages, 1852. Post free, $1, from this office.

American Fish Culture, embracing all the details of artificial breeding and rearing of Trout, and the culture of other fishes; by Thad. Norris. Illustrated, 304 pages, 1868. Post free from tbis office, $2.50.

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Technical Education.

Prof. D. C. Gilman, before the Mechanic Arts College, Mechanics' Institute Hall, S. F:

LECTURE 1. Jan. 4.—The first lecture of the course to be delivered before the Mechanic Arts College, by the provisions of the State University, was given by Professor D. C. Gilman, President of the University, on Saturday evening last. The subject was "Polytechnic Schools at Home and Abroad:" The lecture was opened under the head of "the relation of knowledge to wealth," the speaker stating that the subject to be considered is of vital importance. It involved two questions: "How can we grow wiser?" and "How can we grow richer?" In one of these questions he said we are all interested; in the other we ought to be. In communities wisdom and wealth walk hand in hand. Individuals do not always find this true in their own experience; there may be the exceptions to the rule, but the progress of nations and States is almost always in direct relation to their intelligence and education.

Respecting Education, Great Changes of Opinion

Have come about during the last twenty-five years, since the time, we will say, when men who are still fresh and young, the men of forty-five and fifty years of age, completed their schooling. This change requires far more attention than has hitherto been given to theoretical and applied science. The tendency toward the study of mathematical, physical and natural sciences shows itself in all the older colleges, in Cambridge, New Haven, and Princeton and Dartmouth. It has secured from Congress a grant for the establishment of a scientific college in every State of the Union. It has entered the old English universities and modified their traditional courses. It is unexpectedly becoming the entering wedge by which modern ideas are to make their way to Turkey, Syria, India, China and Japan, in every one of which countries modern science, taught by American teachers, is already speaking to those who have hitherto been in darkness. What is this movement, which is so universally recognized as important? It is a recognition of the fact that

A Study of the Laws of Nature,

Of the principles by which the universe is shaped and governed; that investigation of the rocks, the stones, the seas, the winds, the climate, the vegetation, the animal life, the human frame, the origin of man, the occult forces of light and heat and magnetism, the laws of motion and force, in all their intricate correlations, is fruitful of good to individuals and to nations.

When this general principle comes to be recognized in the school-room or the college, it is quickly analyzed into subordinate propositions like these: 1st—Everybody should learn something of natural science. 2d—Nobody can learn everything. 3d—In making the selection the practical needs of our circumstances, of our own times and their surroundings, should not be forgotten; in other words, utility or practical advantages should be sought. 4th—We must equally plan for the higher wants of our higher natnre; the development of all our intellectual and moral powers, that our infinite as well as finite wants may be supplied; in other words, to practical skill culture must be added.

Coming among you as a stranger, it has given me the greatest pleasure to recognize in California the hearty and healthy acceptance of these principles; and to find that not only in the acts by which the University of California were created, and in the doings of the Regents and the Faculty, but also in the sentiments of the people—educated men and practical men alike—there is a manifest determination to secure for this State a system of education, from the common school to the university, which shall be in harmony with the most enlightened spirit of the age, and which shall thus be worthy of the extraordinary gifts here bestowed by Nature, and of the equally extraordinary opportunities here opened to civilized mankind.

The Whole State of California Needs Scientific Education,

Your mines, your agriculture, your manufactures and your transportation cry for schools and colleges in which the young may be trained in those branches of sciences which underlie these modern callings. Elsewhere, and under other auspices, I shall endeavor to uphold the interest of the State in technical education. The point of view to be taken this evening is that of San Francisco. In every community a great city is a miniature State; here are crowded together representatives of callings; here in the school-house where they prepare for life; the market where they sell; the manufactory where they produce; and the refuge to which they flock in poverty and in wealth; here in a compact, accessible mass of busy workers, we may study most of the wants of the State at large.

BAY DISTRICT HORTICULTURAL SOCIETY.—We have received the printed Transactions of this society, for the year 1872, with a list of its officers and members, Constitution and By-laws with the Secretary's Report, including essays, lectures, etc.

The California Short-Horn Breeders' Convention.

EDITORS RURAL PRESS:—In September, 1872, whilst the State Fair was being held at Sacramento, several of the Short-Horn breeders assembled and agreed to form a society. There being many absent at the time, the meeting merely appointed temporary officers, and adjourned to meet in San Francisco on the first Monday in February, 1873, it being presumed that a larger attendance would be secured at that date.

We have heard nothing of this proposed meeting of late, but sincerely trust it will not be overlooked, as it is fraught with great importance to the stock interests of the State.

As the day appointed is near at hand, we think it advisable to make mention of the most important subjects which are likely to be brought before this Convention, so as to give its members a fair chance of turning them over in their minds, and deciding as to what should be admitted into their discussions, and what should be thrown out, or left to the investigation and decision of special committees.

First. —Where is the line to be drawn, with regard to thoroughbred animals ? — it being known that there are many such in this State whose pedigrees have not for several years past been placed on record. There are many breeders in this State whose mere word for the authenticity of the pedigree would undoubtedly be taken by any and every person on this Coast, but there are likewise others whose statements would be considered unreliable, or, at least, doubtful; where, then, is the line to be drawn? Should we be justified in accepting the former and rejecting the latter? This is undoubtedly one of, if not the most important question to be decided by this Convention; it therefore behooves its members to give it their most careful consideration and unbiased judgment; keeping always in mind that the genuineness of the pedigree must not merely satisfy the present breeders of California, but there should be no loophole left open for those who come after them, to pick even imaginary flaws in it, and thereby create distrust in *all* pedigrees recorded at or about the present time.

Secondly.—Should this Association keep a record, and appoint a committee to investigate the pedigrees of all the Short-horns now in the State, and also of such as may hereafter be tendered for insertion; or should the whole care and responsibility of their "acceptance as genuine and authentic," be left to the editor of the American Herd Book, Mr. Lewis T. Allen, of New York, who knows nothing whatever of the standing and character of our breeders and of the faith to be placed on their word; and who, however honest in his intentions, would, owing to the distance he is removed from us, and the delay and uncertainty therefrom ensuing in making his inquiries and investigations, be liable to be misled and imposed upon by ingenious but not over scrupulous persons, such as exist in this State as well as in the East, and such as will crop up all the faster as the Short-horn interest is magnified ?

Thirdly. — It is the duty of this Association to provide means for securing an impartial judgment on all cattle exhibited at the Annual Agricultural fairs held in the several districts of this State, and especially at the State Fair. To this end its members should co-operate with the officers of the societies and endeavor to procure the services of men who are "experts" on the subject, and moreover, are not and have no reason to be biased in favor of any certain district or person.

Fourthly.—It is for this association to decide which is the most eligible point for holding the State Fair, and by the united action of its members to cause the State Agricultural Society to hold its Fair at such point as the former may designate.

These, Messrs. Editors, I consider the most important considerations, which will come under the notice of the Convention. FOLIO.

We give place to the foregoing without endorsing the views of the writer in regard to the power or the right of said Short-Horn Breeders' Convention, to decide upon the "most eligible point," for holding the State Agricultural Society's Fair. That point we deem as already fixed at Sacramento.

THE LIME PLANTS.—Prof. Voelcker says: Leguminous crops, as peas, beans, vetches, saintfoin, clover, etc., all partake of the character of the pea, which may be accepted as the type of this family of plants. The prevailing mineral constituent of these plants is lime; for this reason they are sometimes called "lime plants." As we might for this reason expect, these plants flourish luxuriantly on lime soils, and are cultivated most successfully in limestone districts. For the same reason, the addition of lime to soils containing but little of this substance greatly favors the growth of these crops. Another mineral constituent required by these plants is sulphur; hence the addition of some combination of sulphur is generally attended with benefit to a crop of this description. A substance well fitted for this purpose is gypsum, or plaster of Paris. This compound, as already noticed, contains sulphuric acid and lime, and on this account may be regarded as a special manure for leguminous plants

Letter from Col. Younger.

EDS. PRESS:—Allow me space in your paper, to refute some charges made against two of my Short-horn Durham cows, "Madaline Talbott" and "Kate Hughes." The purity of this pedigree has been disputed. I have sent a statement of the facts to Mr. Lonis F. Allen, publisher of the A. H. B., but think it proper to have the facts published here among those most interested.

My attention was first called to the charges through the kindness of Mr. Wadsworth, editor of the PACIFIC RURAL PRESS, to a letter from Mr. Thos. E. Talbott, of Dalhoff, Missouri, published in the *National Live Stock Journal* of Nov. last. The *Journal* of that date contains a statement from one of the Vanmeters, of Kentucky, with the editor's comments and Mr. T. E. Talbott's letter.

The editor in commenting on the statement and letter in reference to my stock, says: "One of the Vanmeters, in Kentucky, for instance, stated that a grade cow sold by his father had been made to figure in the foundation of his herd, with a pedigree that did not belong to her, and promised to write out the facts for publication." He then introduces Mr. Talbott, "with the following card, concerning other animals entering into the basis of this herd of Col. Younger." Mr. Thos. E. Talbott says in his letter, after speaking of the pedigree of "Kate Hughes:" "The breeding and ownership of "Madaline Talbott" purports to be the same. Now the facts are these: I never bred or owned either of the cows, neither did I ever own "Lucky Lass" (the cow that purports to be the dam of these cows,) or any other Short-horn cow tracing back to imported "Young Mary" by "Jupiter" (2170)." I will here correct an error the *Journal* has fallen into, and that is that these gentlemen are speaking of different cows; the cow "Lucky Lass," is the cow they both are speaking about, the dam of "Madaline Talbott" and "Kate Hughes." I will now proceed to give a history of this controversy as far as I know or am concerned, or have had any connection with it, concerning these three cows.

Mr. Darius Gettings, of Liberty, Missouri, owned "Lucky Lass," and sold her two heifers "Madaline Talbott" and "Kate Hughes," one under two, and the other under one-year old, to Mr. Milton Dale and Paley Carpenter for $800, and refused one thousand dollars for "Lucky Lass" from these parties. That was in 1860, I think. They imported them to California the same year. Now, on the 25th of November, 1861, Mr. Dale sold "Madaline Talbott" and "Kate Hughes" to C. O. Peters. Mr. Peters sold them to me; Mr. Dale at the time delivered to me a certificate of pedigree of "Lucky Lass," signed by B. F. Vanmeter, it being the same given to him by Mr. Darius Gettings, of Liberty, Mo., when he purchased them, and has since made a certificate to that fact.

I will now give a copy of both certificates: "Lucky Lass," Roan by Wellington, dam, certificate by "Young Prince Albert," grand dam "Crazy Jane" by John Randolph," gr. dam "Old Pink" by "Goldfinder (2066) "John Randolph" by "Goldfinder" (2066) dam "Young Phillisis," (E. H. B. vol. 3, p. 570) "Young Prince Albert," raised by Dr. Watts of Ohio, was by "Prince Albert;" he by "Walter," dam was "Lady Parcton;" 2nd dam by "Prince Charles Wellington" (246) was bred by A. Renich of Clark county, Kentucky, got by "Young Paragon," dam "Blossom" by "Cossack," (3503) gr. dam "Miss Franklin" by "Franklin," (3834) gr. gr. dam, "Hanot" by "Young Waterloo;" (2817) gr. gr. gr. dam, by "Hero" (1110) "Young Paragon" by "Ashland" (11122) dam "Thames" by "Shakespeare" (12062) gr. dam "Lady of the Lake" by "Reginor" (2503) gr. gr. dam, "Rose of Sharon," B. F. VANMETER.

"I, Milton Dale of Yolo county, California, certify that, the above pedigree was delivered to me by Darius Geddings of Clay county, Mo,, as the pedigree of the dam of "Madaline Talbot" and "Kate Hughes." Signed by Vanmeter, November 23d, 1872. MILTON DALE.

Now the mistake I made was in giving Mr. T. E. Talbott of near St. Charles, Mo., the credit of breeding these two heifers, when I had not the remotest knowledge of him, for up to that time I had not seen a herd book or I could have learned who he was.

When I bought these two heifers in 1861, I asked Mr. Dale, who imported "Lucky Lass" from Ky. to Mo., he said he did not know, but either Mr. Gettings or Mr. Talbott, of Liberty, Mo., did, but was inclined to the opinion that it was Talbott; his reason for thinking so was that Talbot had imported, and he was not sure Gettings had, and thought most likely that Talbott had sold "Lucky Lass" to Mr. Gettings. When I was making my arrangements to send my pedigrees on for record, I wrote to Mr. Dale for this information, and also Mr. Talbott's given name, he being absent from the State, I got no answer. This very point was discussed between Mr. G. N. Swezy, of Marysville, Cal., and myself, who was assisting me. He asked what was Mr. Talbott's initials; my answer was that I could not recollect, although I knew him well before I left Mo., I had been from there since 1851, and had forgotten. Mr. Swezy said he had seen the name of a Mr. T. E. Talbott in the herd book, and he lived in Mo., and thought he must be the Talbott of Liberty, Mo., so we adopted the initials, for the reasons above stated, and Mr. Swezy remarked if it should turn out to be a mistake it could be corrected in the 12 vol., A. H. B. Now this mistake brought out this card of Mr. T. E. Talbott's denying that he ever owned or bred either of these heifers; his statement is true, and it was his duty as a gentleman to make it public. I was not aware of my mistake until I had read Mr. Talbott's letter in *The Live Stock Journal*.

I will here say that I knew Mr. John Talbott (for that was his name) for many years before I left Mo., and no man has left a purer reputation. Mr. Gettings I knew much longer, as an honorable, high-minded gentleman he has no superior; he is still living at Liberty. Mr. Dale and Mr. Peters I have known from their boyhood; they are honorable gentlemen and stand high in the community in which they live. These heifers and this certificate coming to me through these gentlemen, knowing them to be reliable in every sense of the word, how could I come to any other conclusion than that this certificate is genuine, and is what it purports to be, the pedigree of "Lucky Lass" and she was owned by Gettings, and that she is the dam of my two heifers, and should stand as a fact until disproved. I will now call attention to the fact that the information given by "One of the Vanmeters in Ky." to the editor of the *Journal* was before the Nov. number was published. Now, about the 14th of July last I received a letter from Abraham Vanmeter, of Winchester, Ky., asking for information about "Madaline Talbott" and "Kate Hughes," and those of similar pedigree—here is the letter.

NEAR WINCHESTER, Ky., July 6th, 1872.

MR. COLEMAN YOUNGER:—San Jose, Santa Clara Co., Cal.—*Sir:*—Allow me to ask, where and from whom you got the cows or heifers "Madaline Talbott," "Kate Hughes" and others of similar pedigree, running as you have them through "Lucky Lass" by Wellington 2366.

Certificate by "Prince Albert 2d," 857 "Crazy Jane," by John Randolph, 603, etc., etc. If you will give me all the desired information you know and can get in regard to the pedigrees, and all the persons connected with the pedigrees and with sending the cows to California; and find out if you can where they first originated, I think I can give you some information in regard to them you would like to have, provided you can tell me all you know and can find out about them. Let me hear from you as soon as you can. Direct yours to

Yours Truly, ABRAHAM VANMETER.

This letter was answered within a few days, so he must have got it before the 25th of July, giving the information asked for, and also a copy of B. F. Vanmeter's certificate of pedigree to "Lucky Lass" in the letter, with the request to give me any information he could, so if there was any errors, I might get it in time to make the corrections in the 12th Vol. A. H. B. You will see from his letter he promised me the information "You would like to have;" he has had that letter and copy of certificate since the last of July, and if he has any information "You would like to have" he has kept it from me, or at least given it a singular direction to reach me. Was it the copy of the certificate of pedigree of "Lucky Lass," that closed his correspondence and prevented me from getting the information "You would like to have," why did he not give me the information he gave to the *Journal*, and also the information he promised to write out and publish—I repeat the question, why did he withhold that information from me after he had promised it. Was the letter to entrap me? No gentleman with whom I have had the pleasure of corresponding, has come so far short of complying with his promise as this same Abraham Vanmeter. He says his father sold a graded cow and she was "Made to figure in the foundation of my herd;" was that cow "Lucky Lass?" was she a grade cow? well who gave the certificate of pedigree to her? B. F. Vanmeter's name is to it. Now my conclusions are that he knows nothing about it, or, has forgotten. The certificate says she is a thoroughbred cow. Now if this certificate does not belong to the cow, "Lucky Lass," owned by Mr. Gettings, what "Lucky Lass" does it belong to, and was she a grade cow? Will he say this is a grade certificate? I think not. I see in the Dec. number of the *Live Stock Journal* the proceedings of the National Convention of Short-Horn Breeders, Mr. Lewis F. Allen, the publisher of the A. H. B., made a speech in vindication of his course in admitting pedigrees to record, and among others that was complained of, was these two heifers that Vanmeter wrote to me about; he said, "Mr. Vanmeter, I understand, produced some very fine cattle. A gentleman from California says he has a herd descended from two cows that was said to have been purchased of Vanmeter. Mr. Vanmeter wrote to Mr. Younger, of California about them, and it appears Mr. Younger had bought them through three different hands. My information was through Mr. Younger of California, whose letter I have here." Now what letter was this? it must have been the letter wrote to A. Vanmeter, for I have not written to anyone else on that subject; so Vanmeter must have given Mr. Allen that letter with an explanation, and that was, take this letter of Mr. Younger's, and tell that Convention how he got those cows, that other parties have swindled him, but don't say anything about the certificate signed by B. F. Vanmeter. Although copied into that letter, it is a fraud. If Mr. Allen had known as much about it as I did, he would have read the letter and certificate to that convention, and in justice to others, as well as myself, I think he ought to have done so: I know that Mr. Allen thought he was meeting out justice to all parties from the information and explanation I suppose he got from Vanmeter. We here find this same Vanmeter who was to give me information "You would like to have," withholding, or, causing to be withheld as I suppose, from that Convention, that ought to have been before it. Mr. Allen made a mistake in saying that I had said I had "two cows that was said to have been purchased from Vanmeter." I have never intimated anything of that kind; the controversy is about "Lucky Lass," the dam of Madaline, Talbott and Kate Hughes. This whole matter sifted down to the bottom, resolves itself into a few questions of fact: Did B. F. Vanmeter give this certificate of pedigree to "Lucky Lass?" if he did, is the cow Mr. D. Gettings of Liberty, Mo., owned, called by that name, the cow meant in that pedigree? Now if that is true, then the matter is settled in my favor; if this certificate does not apply to her, then what "Lucky Lass" does it apply to? The certificate says she is the cow: Mr. Gettings gives that certificate to Mr. Dale & Carpenter as the pedigree of his cow called "Lucky Lass" the dam of the two heifers he sold to them. Mr. Dale transferred that certificate to me when I bought them, and but a short time since appended a certificate to the truth of it. While writing this, I received a letter from G. N. Swezy of Marysville, reaffirming statements made above. Here it is:

MARYSVILLE, Dec. 17th, 1872.

COLONEL COLEMAN YOUNGER: Dear Sir — I have recently read a letter from Thomas E. Talbott, of Dalhoff, Mo., of the date of October 12th, 1872, published in the *National Live Stock Journal*, in relation to the pedigress of your two cows, "Kate Hughes" and Madaline Talbott," in which he denies that he ever bred or owned them or their dam, "Lucky Lass." That we have fallen into the error of using his name is most likely. You called upon me to aid you in the preparation of the pedigrees of your fine, large herd of Short-Horn Durhams, for entry in the Herd Book, as you had no knowledge in that line and no volumes of the Herd Book, and I having the only complete set then in the State. I found your farm-book, showing a complete registry of your breeding, in a most complete condition. You had the pedigrees of most of your stock complete. You had also the certificate of B. F. Vanmeter of the pedigree of "Lucky Lass," the dam of "Kate Hughes" and "Madaline Talbott." So far we experienced no trouble. A question arose as to who had imported "Lucky Lass" into Missouri, and consequently bred from her "Kate Hughes" and "Madaline Talbott." You stated to me that Mr. Milton Dale, one of the parties who brought these cows to California, informed you that either Mr. Geddings or Mr. Talbott, of Liberty, Mo., did, and that he believed it was Mr. Talbott Neither you nor your wife, although formerly acquainted with this gentleman, could recollect his given name. I therefore suggested that my Herd Books might reveal his full name. Accordingly I took home with me all your papers, etc., and made an examination of the Herd Book. In doing so I found that the only breeder in Missouri of that name, up to about 1858 was Mr. T. E. Talbot, and from that fact believed I had obtained the proper initials of the Mr. Talbott whose given name you so anxiously desired to obtain. This I informed you of, and you with myself justly believed we were correct in adopting T. E. as Mr. Talbott's name. As it turns out the matter can be easily arranged now. You can, as I suggested, when the pedigrees were being forwarded, correct any errors in the subsequent volumes. The error should not have occurred, but we were pressed for time being anxious to have the pedigrees appear in the 11th Volume, and so did not write to Mr. Talbott himself. You can now write and obtain his correct initials and learn any other facts you may desire, and make the correction in the next volume. The Herd Book is full of similar corrections. The error does not detract from the pedigrees of the animals, and as there was no intention to wrong any one, no injury was done. Respectfully yours, etc.,

G. N. SWEZY.

I will conclude this article, by saying that I have other evidences to give if it was necessary, to substantiate the statements made above. COLEMAN YOUNGER.

San Jose, Cal., Jan. 6th, 1873.

From Tulare.

EDITOR PRESS.—It commenced to rain here on the evening of 22d of December, and continued almost without intermission for a week. Everything is looking encouraging for the farmers this year, and most of them are busy plowing and putting in crops. The ground is in splendid condition for plowing and plenty of land to plow. Settlers are coming in all the time, and taking up government land; but there is room for a good many yet. The weather continues warm and pleasant, and the grass is springing up all over the plains. Cattle and sheep men are in high spirits over the prospects of a plentiful supply of feed next season.

G. H. PAYSON.

Kingston, Jan. 7th, 1873.

Rain-fall in San Joaquin Valley.

EDS. PRESS:—The amount of rain for the season to January 3d, at this point is as follows:

Oct and Nov	0.28 inches
Dec	4.70 "
Jan	0.11 "
Total	5.09 "

This will be seen to be about half the amount reported for the same time in San Francisco.

The same is true of the entire rain-fall last winter at San Francisco, and in this portion of San Joaquin Valley. The amount at San Francisco was some 34 inches and here only 17.

A friend informs me that the amount in the Alabama Settlement, in Fresno Co., 60 miles southeast of here for December, was about 4.50 inches.

No season for five years has opened so favorably for grain as the present. J. W. A. W.

Turlock, Jan. 4th, 1873.

PROPOSED LECTURES.—Professor E. S. Carr, well known as a pleasing and instructive lecturer, has been requested by a number of parties interested in industrial and mechanics' arts, to deliver a series of lectures in Oakland on subjects as his judgment indicates, would be for their benefit. The request has been published in the Oakland *News*, and is quite complimentary to the Professor.

Annual Meeting.—The Annuel Meeting of the STATE AGRICULTURAL SOCIETY for the election of officers for the eusuing ycar, and for the transaction of other busiuess, will bo held at Agricultural Hall, corner of Sixth and M streets, Sacramento, on the 22d day of January next, at 12 o'clock, noon. A general attendance is requested. By order of the Board,

j11 ROBERT BECK, Secretary.

Our Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

WEDNESDAY, M., Jan. 8th, 1873.

With the new ycar, we have still to chronicle an improved tendency in the price of wheat, our principal domestic staple. In fact so great is the demand for export that exporters are complaining before the Board of Harbor Commissioners of want of facilities. At the present rate we shall very probably have got rid of all our available surplus long before next harvest. Rye is scarce and the price of Buckwheat nominal.

RECEIPTS.—Receipts of Bay produce since the New Year have begun to come in more freely though Flour, Middlings, Potatoes, Beans, Hay, Straw, and Ouions are much behind what they were three weeks ago. We however have to chronicle larger receipts of Barley and Oats than for some time past.

We summarize receipts of Bay produse to date as 17,497 quarter sacks of Flour; 213,938 centals of Whcat; 4,228 do of Barley; 784 do of Oats; 729 do of Middlings; 1,890 do of Bran; 2,715 do of Potatoes; 306 do of Buckwhcat; 163 do of Beans; 68 do of Onlons; 63 do of Corn; 13 do of Peas; 32 do of Alfalfa Seed; 2,482 Hidcs; 86 bales of Wool; 630 tons of Hay; 65 do Straw; 33 do of Salt; 13,940 gallous of Wine and 40 do of Brandy.

Wheat receipts at Oakland Wharf have aggrega ed 77,000 centals or 386 car loads.

The coasting craft have brought us tho following quantities of Domestic Produce from Coast ports: Wheat, 6,169 centals; Barley, 7,212 do; Oats, 316 do; Corn, 5,024 do; Potatoes, 12,276 do; Beans, 622 do; Castor Beans, 7 do; Flexseed, 22 do; Mustard Seed, 36 do; Wool, 28 bales, Hldes 78 and 14 pipes, 8 puncheons, 1 bbl., 1 half-barrel and 1 three-quarter cask of Wine. All the Wheat, save 130 centals from Tomales, arrived from Moss Landing, more than two thirds of the Barley from Hueneme, the bslance being from San Buenaventura and Moss Landing; chiefly from the former. Tomales supplied ns with nearly all the Oats; the Beans were divided between San Diego, San Buenaventura and Hueneme; so also was the Corn, but chiefly from the latter; two-thirds of the Potatoes were from Humboldt, and the balance from Moss Landing, Tomales, Point Areuas, Pigeon Point and Fort Ross, principally from the former; the Castor Beans were from San Buenaventura; the Flaxseed and Mustard Seed from Moss Landing; the Hides from Humboldt, Hueneme and San Buenaventura and the Wool from Hueneme and San Buenaventura.

From Oregon we have received 485 half sacks and 6,100 quarter sacks of Flour, 2,113 centals of Barley, 50 do of Potatoes and 114 bales of Wool.

BARLEY.—Barley remains nearly the same. We note sales of 900 centals of Coast at $1.30; 400 do. at $1.31¼; 300 do. Choice, at $1.32½; 150 do. Bay, at $1.37½; 600 do. at $1.40; 500 do. Brewing, at $1.45: and 500 do. at $1.47½.

FLOUR.—Flour has remaiued stationary. Exports have included 24 half sacks, and 890 quarter sacks per "Comet" to Honolulu, 50 bbls. and 20 quarter sacks per "Prince Alfred" to Victoria, and 582 quarter sacks to Honolulu, per "Nebraska."

HAY.—Receipts have been pretty large this week. We note sales of ten tons of cow at $16; 20 tons do at $16.50; 10 tons of fair at 18; and on Monday last a whole cargo at 16.

OATS.—Oats remain firm on account of the small receipts. We note sales of 150 bags of Dark Coast at $2.02½; 800 do. of fair to choice, at $2.07½ to $2.25; 200 do. of fair at $2.10; 1,400 do. of Oregon and 200 do. of good at $2.20; and 1,500 do. of various grades at $2.25.

POTATOES.—Potatoes have again begun to arrive freely from coast ports, and prices though now higher than they were a week or two ago must, if the import continues, again go down. We note sales of 4,200 bags of Humboldt, at $1.10 to $1.25; 2,640 do of Monterey, at $1.15 to $1.25; 500 do of Cuffe e's Cove, at $1.12½; 400 do of Bodega, at $1.05, and 400 do of Petaluma, at 90c to $1.

WHEAT.—Recelpts are still large and prices have advanced five cents per cental on the highest quelity of milling. Wheat has risen four cents in the Liverpool market being now quoted by telegraph at 12s. 8d. to 12s. 10d. Freights are nominally the ssme as last week, with a firm tendency. We quote the following sales: 700 sacks of fair coast at $1.85; 1,000 do. of dark coast at $1.87½; 1,570 do., inferior shipping, at $1.90; 7,100 do. of coast at $1.95; 1,500 do. coast et $1.95 to $2.00; 8,540 do. of good at $2.00; 6,000 do. of good shipping at $2.05; 30,800 do. at $2.10, and 11,000 do. of cholce shipping at $2.12½. Large quantities are being taken from the warehouses on the San Joaquin above Stockton, and the equivalent of $2.20 has been paid in the interior of the State.

Exports have been unprecedentedly large, five cargoes having left on the 4th inst. They include per "Nesutan," to Queenstown, 30,674 centals; per "Hamilton Fish," to Liverpool, 42,725 centals; per "Satsuma," to Cork, 11,994 centals; per "Thomas Bell," to Cork, 26,186 centals; per "Sevoir Faire," to Liverpool, 44,356 cental; per "Santiago," to Cork, 14,158 centals; per "Trowbridge," to Liverpool, 39,377 centals; per "Thatcher Magoun," to Liverpool, 35,148 centals per "Alaska," to Liverpool, 39,323 centels; per "Ella Beatrice," to Queenstown, 14,185 centals; per "Comet," to Honolulu, 39 centals; per "Van Dieman," to Liverpool, 31,664 centals; per "Guenisa," to Liverpool, 17,891, and per "Ellena," to Liverpool, 23,267 centals—making a total of 13 cargoes and one shipment of 370,936 centals, wortb $700,309.

WOOL.—We have shipped overland 20,000,000 lbs during eleven montbs of the past year, and have received 32,800 bales from the interior of tbe State during the same interval. Sales since our last include 45,000 lbs of Spring and 95,000 lbs of Spring and Fall, at private rates. In Boston, California Wool, during the last week in December, 1872, brought 40c to 41½c for California Spring, 23c to 28c for Fall, and 30c to 37c for choice clips.

GENERAL MERCHANDISE.

The steamer "China" arrived this week with a small csrgo of Tea of 11,000 packages, besides 230 bales of Silk, 2,700 mats of Rice, 50 bales of Cassia and 4,000 packages of General Merchandise. The small quantity of Tea is explaincd by the fact that the competition of the Suez route with our own line of steamships, is rapidly driving the latter to the wall. A cargo of 2,000 kegs of Hawaiian Sugar arrived during the week. Business has been very quiet in the wbolesalo llue during the holidays, but matters are now becoming more lively.

CITY MARKET REPORT.

DOMESTIC PRODUCE AT WHOLESALE.

SAN FRANCISCO, Wednesday M., Jan. 8, 1873.

FLOUR.			
Alviso Mills, bbl.	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 25
Commer'l Mills	4 50	@	6 25
Golden Gate	4 50	@	6 25
Golden Age	4 25	@	6 00
National Mills	4 25	@	6 00
SantaClaraMills	4 25	@	6 00
Genesee Mills	4 25	@	6 00
Oregon	4 25	@	6 00
Vallejo Star	4 25	@	6 00
Venus, Oakland	4 25	@	6 00
Stockton City	4 25	@	6 00
Lombard. Sac.	4 25	@	—
BEANS.			
Beans sm'l w'ite	3 ½	@	—
do, butter	4¾	@	—
do, large, do	5	@	—
do, bayo	3½	@	—
do, pink	3¾	@	—
BROOM CORN.			
Per ton	$40	@	120
GRAIN, ETC.			
Wheat Cal. coast	1 85	@	1 90
do, shipping	2 10	@	—
do, milling	2 10	@	2 15
do, Oregon	—	@	—
Barley, Dark C'st	1 32½	@	1 35
do, Light	1 22½	@	1 35
do, Brewing	1 40	@	1 50
Oats, Coast	2 00	@	2 25
do, Bay	2 25	@	—
Corn, White	1 40	@	—
do, Yellow	1 40	@	—
Buckwheat	2 25	@	—
Rye	2 25	@	—
DAIRY PRODUCE.			
Butter, Cal. fresh	52½	@	—
do, ordinay roll	35	@	—
do, choice	40	@	—
do, new firkin	—	@	—
do, packed	—	@	—
do, New York	35	@	—
Cheese, Cal. new	—	@	—
do, Eastern	15	@	—
Eggs, Cal. fresh	37½	@	40
do, Oregon	37½	@	—
do, Eastern	37½	@	—
FEED			
Bran per ton	26	@	27½
Middlings	32½	@	—
Hay	16	@	33
Straw	10	@	—
Oil cake meal	35	@	—
FRESH MEAT.			
Beef, fr quality	8	@	—
do, second do	6½	@	—
do, third do	5½	@	—
Veal	7	@	—
Mutton	6	@	7½
Pork, undressed	5¾	@	6
do, dressed	8	@	8¾
HOPS.			
California, 1871	—	@	—
do 1872	37½	@	40
MISCELLANEOUS.			
Beeswax, per lb	32½	@	45
Honey	10	@	25
Onions	2½	@	—
Flaxseed	3	@	—
Canary do	4½	@	—
Mustard do, white	13½	@	—
do, brown	3	@	—
Peas	3 50	@	—
NUTS.			
Peanuts per lb	4	@	6
Pecan nuts	18	@	—
Hickory do	10	@	—
Brazil do	16	@	18
Prince Almonds	16	@	—
Cocenuts, per 100	12 00	@	—
Alm'ds h'd shell	12	@	15
do, soft	23	@	26
POTATOES.			
Sweet, per lb	1¼	@	—
Humboldt	1 10	@	1 20
Monterey	1 10	@	1 20
Tomales	1	@	1 10
POULTRY AND GAME.			
Live Turkeys	23	@	25
Hens, per dz	9 00	@	10 00
Roosters	9 00	@	10 00
Chickens	6 00	@	8 00
Ducks, tame, doz	11 00	@	12 00
do, Mallard	5 00	@	—
Geese, per doz	18 00	@	—
Quail, per doz	2 25	@	—
Hare, per doz	3 50	@	4 00
Rabbits, per dozl	50	@	2 00
Larks, per doz	75	@	1 25
Doves, per doz	75	@	1 25
Plover, per doz	2 00	@	2 25
Curlew, per doz	1 50	@	—
Teal, per doz	1 50	@	—
Snipe, Eng., doz	50	@	2 00
do, small, doz	75	@	1 00
Venison, per lb	8	@	9
PROVISIONS.			
Cal. Bacon, per lb	12	@	13
Eastern do	11	@	12
do sugared	13	@	14
Cal. Hams	14	@	15
Eastern do	16	@	17
Cal. Smoked Beef	10½	@	12
WOOL, ETC.			
Native, per lb	12	@	20
California	25	@	28
Oregon	25	@	28
Hides, dry	18	@	20
do, green salt'd	9	@	10
Tallow	8	@	8½

FRUIT MARKET.

The supply of tropical fruit is limited; in fact they may be almost seid to be out of the market. Pears ere also out. Vegetebles, such of them as are quoted outlined in our price list, are in plentiful supply.

FRUIT MARKET.			
Mex, Or. per 1000	—	@	—
Limee, per M	—	@	—
Au'ln Lemons, bx	—	@	—
Malaga do., bx	—	@	—
Bananas, per bnch	3 00	@	4 00
Pineapples, per dz	5	@	6
Apples, cat'g, bx	75	@	1 50
" Cooking	50	@	1 50
Pears, Eating	1 00	@	2 50
" Cooking	30	@	50
Pomegranates, per 100	—		none
Grapes, Mission	—		none
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'x	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	1¼	@	1½
DRIED FRUIT.			
Apples, per lb	6	@	7
Pears, per lb	7	@	9
Peaches, per lb	8	@	10
Apricots, per lb	—	@	—
Plums, per lb	5	@	8
Pitted, do per lb	18	@	20
Raisins, per lb	7	@	10
Black Figs, per lb	5	@	8
White, do	12½	@	15
VEGETABLES.			
Cabbage, per lb	1¾	@	—
Garlic, per lb	5	@	6
Green Peas	8	@	10
Green Corn per doz	—	@	—
Marrowfat Squash per ton	10 00	@	15 00
Artichokes, per lb	1 00	@	1 25
Tomatoes, river bx	—	@	—
String Beans, per lb	—	@	—
Lima Beans	—	@	8
Peppers	15	@	20
Okra	37½	@	40

LUMBER MARKET.

CARGO PRICES RED-WOOD.		PUGET SOUND PINE—Retail Price.	
Rough, per M	$20 00	Rough, per M	$25 00
Rough refuse, per M	16 00	Flooring end Step, per M	37 50
Rough clear, per M	32 50	Flooring, narrow, per M	40 00
Rough cleer refuse, M	22 50	Flooring, 2d quality, M	30 00
Rustic, per M	35 00	Laths, per M	3 50
Rustic, refuse, per M	24 00	Furring, per lineal ft	1c
Surfaced, per M	32 50	Rough, per M	$25 00
Surfaced refuse, per M	22 50	Rough refuse, per M	20 00
Flooring, per M	30 00	**REDWOOD—Retail Price.**	
Flooring refuse, per M	20 00	Rough Pickets, per M	18 00
Beaded flooring, per M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor. refuse, M	22 50	Fancy Pickets, per M	30 00
Half-inch Siding, M	22 50	Siding, per M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, per M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, per M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half inch Bettens, M	22 50	Rustic, per M	42 50
Pickets, rough, per M	14 00	Bettens, per lineal foot	1c
Pickets, rough, p'ntd	16 00	Shingles, per M	3 50
Pickets, fency, p'ntd	22 50		
Shingles, per M	3 00		

GENERAL MERCHANDISE.

BAGS.			
Eng, stand. Wh't	15	@	—
Flour Sacks ½s	16¼	@	—
" " ¼s	8½	@	9¼
Stand. Gunnies	—	@	16¾
" Wool Seeks	—	@	70
" Barley do	17	@	—
Hessian 40-in gde	—	@	12½
COFFEE.			
Costa Rica per lb	18	@	—
Guetemela	18	@	—
Java	22	@	—
Manilla	16	@	—
Rio	—	@	—
Ground in cs	22½	@	25
Chicory	10	@	—
FISH.			
Pac. Dry Cod, new			6
bundles, per lb	—	@	7
Salmon in bbls	7 50	@	—
do ½ bbls	4 75	@	—
do 2½ lb cans	—	@	—
do 2 lb cens	3 50	@	—
do 1 lb cens	2 50	@	—
Pick. Cod, bbls	8	@	—
do ½ bbls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, bx	—	@	50
Mack'l, No. 1, ½ bls	—	@	11 00
" Extra	—	@	12 00
" in kits	2 50	@	3 25
" mess	—	@	3 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size	—	@	6
PAINTS.			
Stsnd. Wh. Lead	—	@	12½
Whitening	—	@	2½
Chalk	—	@	2½
Paris White	—	@	3
Ochre	—	@	3½
Venetian Red	—	@	3
Red Leed	—	@	11½
Litharge	—	@	11
RICE.			
China No. 1, per lb	6½	@	7
do 2, do.	5½	@	6
Japan	6	@	—
Patna	7½	@	—
Hawaiian	9	@	—

SOAP.			
Cestile, per lb	12½	@	13
Local brends	6	@	7
SPICES.			
Allspice, per lb	17	@	—
Cloves	23	@	—
Cassie	30	@	—
Nutmeg	97½	@	—
Whole Pepper	18	@	19
Ground Allspice	—	@	22½
do Cassia	35	@	45
do Cloves	22	@	25
do Mustard	25	@	27
do Ginger	21½	@	—
do Pepper	22½	@	—
do Mace	1 20	@	1 30
SUGAR, ETC.			
Cel. Cube per lb	—	@	12
Circle A crushed	—	@	12
do grenulated	—	@	11½
Golden C	—	@	10½
do Extre	—	@	10½
Hawaiien	20	@	22½
Cal. Syrup in bls	32½	@	35
do in ½ bls	35	@	37½
do in kegs	40	@	45
SALT.			
Cal. Bay, per ton	6 50	@	15 00
Carmen Island	14 00	@	15 00
Liverpool fine	24	@	—
do coarse	19 00	@	20 00
TEA.			
Oolong, Canton	19	@	25
do Amoy	24	@	50
do Formosa	40	@	80
Imperial Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpowder, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
Carrots, per doz	20	@	—
Celery, per doz	75	@	—
Cucumbers, †	—	@	—
Tomatoes, per lb	8	@	—
Green Peas	—	@	15
String Beans	—	@	—
Cress, per doz bun	20	@	25
Dried Herbs, lb	35	@	—
Garlic	8	@	10
Green Corn, doz	—	@	—
Lettuce, per doz	25	@	35
Musbrooms, per lb	10	@	50
Horseradish, per lb	15	@	20
Okra, dried, per lb	50	@	—
do fresh, per lb	—	@	—
Pumpkins, per lb	2	@	3
Parsnips, doz	—	@	25
Parsley	15	@	20
Pickles, per gal	50	@	75
Radishes, doz	25	@	—
Summer Squash	3	@	4
Marrowfat, do	3	@	4
Hubbard, do	3	@	6
Dry Lima, shl	-	@	10
Spinage, per bskt	25	@	50
Salsify, per bunch	10	@	—
Turnips, per doz	20	@	25

POULTRY, GAME, FISH, MEATS, ETC.

Poultry is soarce and dear. The Christmas glut over, the farmers hold back, but there will be plenty in a few days and prices will be lower. Game is also scarce.

Fish are getting plentiful. Perch, Smelts and Halibut commenced to arrive. We quote:

Chickens, apiecel	00	@	1 25	Whittaker's	20 @ 22½
Turkeys, per lb	30	@	—	Johnson's Or	20 @ 22½
Mel d&Canv'sBkl	00	@	—	Flounder, per lb	— @ 37½
Tame, do	2 00	@	3 00	Salmon, per lb	8 @ 20
Teal, per doz	2 50	@	3 00	Smoked, new, *	— @ —
Geese, wild. pair	75	@	1 50	Pickled, per lb	6 @ 8
Tame, per pair	4 00	@	5 00	Rock Cod, per lb	12½ @ 15
Snipe, per doz	3 00	@	—	Cod Fish, dry, lb	12½ @ —
Quails, per doz	2 50	@	—	Perch, s water, lb	12½ @ —
Pigeons, dom. do	50	@	—	Fresh water, lb	15 @ —
Wild, do	—	@	2 00	Lake Big. Trout	30 @ —
Hares, each	—	@	50	Smelts, large per lb	15 @ 18
Rabbits, tame	50	@	62½	Small do	12½ @ 15
Wild, do, per dz	—	@	2 00	Silver Smelts	— @ —
Beef, tend, per lb	20	@	—	Soles, per lb	37½ @ —
Corned, per lb	10	@	—	Herring, fresh *	4 @ 5
Smoked, per lb	20	@	—	Sm'kd, per 100	— @ 1 00
Pork, rib, etc., lb	—	@	12½	Tomcod, per lb	15 @ 20
Chops, do, per lb	15	@	—	Terrapin, per doz	5 00 @ 7 00
Veal, per lb	—	@	12½	Mackerel, p'k, ea	15 @ —
Cutlet, do	—	@	18	Fresh, do per lb	— @ —
Mutton chops, *	12½	@	—	Sea Bass, per lb	— @ —
Leg, per lb	—	@	12½	Halibut	50 @ 65
Lamb, per lb	—	@	20	Sturgeon, per lb	4 @ 5
Tongues, beef, ea	75	@	1 25	Oysters, per 100	1 00 @ —
Tongues, pig, ea	75	@	1 00	Chesp. per doz	75 @ 1 25
Bacon, Cal., per lb	—	@	18	Turbot	50 @ 62½
Oregon, do	18	@	—	Crabs per doz	1 00 @ —
Hams, Cal, per lb	20	@	22½	Soft Shell	37½ @ —
Hams, Cross' s o	20	@	22½	Shrimps	10 @ 12
Choice D'field	20	@	22½	Prawns	— @ 1 00
				Sardines	10 @ —

MISCELLANEOUS,

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. per lb	60	@	65	Syrup, S.F. Gol'n.	45 @ 50
Cheese, Cal., lb	17	@	23	Dried Apples	7½ @ 10
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	9 @ 10
Flour, ex. fam. bl	6 00	@	6 25	Dr'd Figs, Cal	9 @ 10
Corn Meal, lb	3	@	3½	Dr'd Peaches	8 @ 10
Suger, wh. creh'd	12	@	13	Oils, Kerosene	— @ 50
do lt. brown, lb	9	@	11½	Eggs	— @ 70
Coffee, Sbarboro's family gr'nd, lb			27½	Wines. Old Port	3 50 @ 5 00
Coffee, green, lb	18	@	22	do Fr. Claret	1 00 @ 1 25
Tea, fine blk, 50, 65, 75		@	1 00	do Cal, dz. bot	3 00 @ 4 50
Tea, finst Jap, 55, 75, 90		@	1 00	Whisky, O.B, gal	3 50 @ 5 00
Candles, Admant'cl	7	@	25	Fr. Brandy	4 00 @ 10 00
Soap, Cal., lb		@	10	Rice, lb	— @ 12½
Can'd Oysters, dz	2 50	@	3 75	Yeast Powders, dz	1 50 @ 2 00

* Per lb. † Per dozen. ¶ Per gallon.

HINTS FOR INVENTORS. We will send on receipt of stamp for postage, FREE, our 52-page Circular, containing 112 Illnstrated Mechanical Movements; a digest of PATENT LAWS; information how to obtain patents, and abont the rights and privileges of inventors and patenteas; list of Goverment fees, practical hints, etc., etc. Address DEWEY & CO., Publishers and Patent Agents, San Francisco.

Farmers, everywhere, write for your paper.

San Francisco Retail Market Rates.

WEDNESDAY NOON, Jan. 8, 1873

FRUITS, VEGETABLES, ETC.			
Apples, per lb	5	@	8
Pears, per lb	5	@	12½
Grapes	6	@	25
Apricots, lb	—	@	—
Pine Apples, each	50	@	1 00
Banenas, per doz	75	@	—
Canteleups	—	@	—
Watermelons	—	@	—
Cal. Walnnts, lb	20	@	20
Cranberries, per g	—	@	75
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Cherries, per lb	—	@	—
Oranges, per doz	50	@	1 00
Limes, per doz	25	@	35
Figs, fresh Cal. *	15	@	—
Figs, Smyrne, lb	25	@	50
Asparagus, wh. *	60	@	75
Artichokes, doz.	1 00	@	1 50
Brussel's sprts, *		@	10
Beets, per doz	20	@	25
Potatoes, New per lb	6	@	8
Potatoes, sweet, *	2	@	3
Broccoli, per doz	2 00	@	2 50
Cauliflower, †	1 00	@	1 00
Cabbage, per doz	75	@	1 00

Carrots, per doz	20	@	—
Celery, per doz	75	@	—
Cucumbers, †	—	@	—
Tomatoes, per lb	8	@	—
Green Peas	—	@	15
String Beans	—	@	—
Cress, per doz bun	20	@	25
Dried Herbs, lb	35	@	—
Garlic	8	@	10
Green Corn, doz	—	@	—
Lettuce, per doz	25	@	35
Musbrooms, per lb	10	@	50
Horseradish, per lb	15	@	20
Okra, dried, per lb	50	@	—
do fresh, per lb	—	@	—
Pumpkins, per lb	2	@	3
Parsnips, doz	—	@	25
Parsley	15	@	20
Pickles, per gal	50	@	75
Radishes, doz	25	@	—
Summer Squash	3	@	4
Marrowfat, do	3	@	4
Hubbard, do	3	@	6
Dry Lima, shl	-	@	10
Spinage, per bskt	25	@	50
Salsify, per bunch	10	@	—
Turnips, per doz	20	@	25

POULTRY, GAME. FISH, MEATS, ETC.

Poultry is soarce and dear. The Christmas glut over, the farmers hold back, but there will be plenty in a few days and prices will be lower. Game is also scarce.

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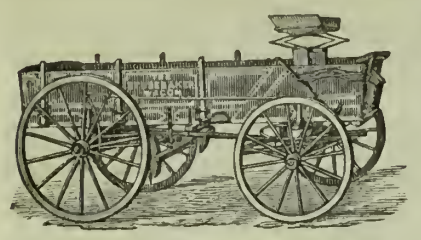
Chickens, apiecel	00	@	1 25	Whittaker's	20 @ 22½
Turkeys, per lb	30	@	—	Johnson's Or	20 @ 22½
Mel d&Canv'sBkl	00	@	—	Flounder, per lb	— @ 37½
Tame, do	2 00	@	3 00	Salmon, per lb	8 @ 20
Teal, per doz	2 50	@	3 00	Smoked, new, *	— @ —
Geese, wild. pair	75	@	1 50	Pickled, per lb	6 @ 8
Tame, per pair	4 00	@	5 00	Rock Cod, per lb	12½ @ 15
Snipe, per doz	3 00	@	—	Cod Fish, dry, lb	12½ @ —
Quails, per doz	2 50	@	—	Perch, s water, lb	12½ @ —
Pigeons, dom. do	50	@	—	Fresh water, lb	15 @ —
Wild, do	—	@	2 00	Lake Big. Trout	30 @ —
Hares, each	—	@	50	Smelts, large per lb	15 @ 18
Rabbits, tame	50	@	62½	Small do	12½ @ 15
Wild, do, per dz	—	@	2 00	Silver Smelts	— @ —
Beef, tend, per lb	20	@	—	Soles, per lb	37½ @ —
Corned, per lb	10	@	—	Herring, fresh *	4 @ 5
Smoked, per lb	20	@	—	Sm'kd, per 100	— @ 1 00
Pork, rib, etc., lb	—	@	12½	Tomcod, per lb	15 @ 20
Chops, do, per lb	15	@	—	Terrapin, per doz	5 00 @ 7 00
Veal, per lb	—	@	12½	Mackerel, p'k, ea	15 @ —
Cutlet, do	—	@	18	Fresh, do per lb	— @ —
Mutton chops, *	12½	@	—	Sea Bass, per lb	— @ —
Leg, per lb	—	@	12½	Halibut	50 @ 65
Lamb, per lb	—	@	20	Sturgeon, per lb	4 @ 5
Tongues, beef, ea	75	@	1 25	Oysters, per 100	1 00 @ —
Tongues, pig, ea	75	@	1 00	Chesp. per doz	75 @ 1 25
Bacon, Cal., per lb	—	@	18	Turbot	50 @ 62½
Oregon, do	18	@	—	Crabs per doz	1 00 @ —
Hams, Cal, per lb	20	@	22½	Soft Shell	37½ @ —
Hams, Cross' s o	20	@	22½	Shrimps	10 @ 12
Choice D'field	20	@	22½	Prawns	— @ 1 00
				Sardines	10 @ —

MISCELLANEOUS,

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. per lb	60	@	65	Syrup, S.F. Gol'n.	45 @ 50
Cheese, Cal., lb	17	@	23	Dried Apples	7½ @ 10
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	9 @ 10
Flour, ex. fam. bl	6 00	@	6 25	Dr'd Figs, Cal	9 @ 10
Corn Meal, lb	3	@	3½	Dr'd Peaches	8 @ 10
Suger, wh. creh'd	12	@	13	Oils, Kerosene	— @ 50
do lt. brown, lb	9	@	11½	Eggs	— @ 70
Coffee, Sbarboro's family gr'nd, lb			27½	Wines. Old Port	3 50 @ 5 00
Coffee, green, lb	18	@	22	do Fr. Claret	1 00 @ 1 25
Tea, fine blk, 50, 65, 75		@	1 00	do Cal, dz. bot	3 00 @ 4 50
Tea, finst Jap, 55, 75, 90		@	1 00	Whisky, O.B, gal	3 50 @ 5 00
Candles, Admant'cl	7	@	25	Fr. Brandy	4 00 @ 10 00
Soap, Cal., lb		@	10	Rice, lb	— @ 12½
Can'd Oysters, dz	2 50	@	3 75	Yeast Powders,

STUDEBAKER WAGONS



Have become

The Standard Wagons of the Pacific Coast.

FOR QUALITY,
DURABILITY,
LIGHT RUNNING,
GOOD PROPORTION,
AND EXCELLENT STYLE,

They Have no Peer.

IRON AXLE,
THIMBLE SKEIN,
HEADER AND
SPRING WAGONS,

Of all sizes, with HEAVY TIRES rivited on, always on hand and sold for $100 to $165.

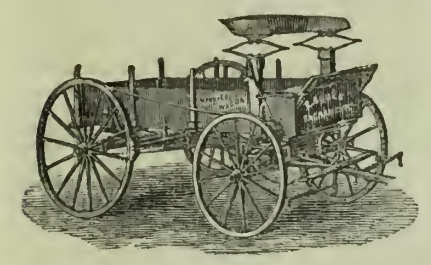
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Just the Kinds of Wagons Needed,

I make a SPECIALTY of the WAGON TRADE.

The attention of DEALERS is especially requested. Send for CIRCULAR and PRICE LIST.

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Factory and Depot, 217 and 219 K street, SACRAMENTO.



FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
ap22-3m San Quentin, Cal.

Hill's Patent Eureka Gang Plow.



The following are some of the reasons why these Plows, are entitled to preference over any other Plow in use. They are made of the best material, and every Plow warranted. They are of light draught, easily adapted to any depth, and are very easily handled. They will plow any kind of soil, and leave the ground in perfect order.

FIRST PREMIUMS!

These Plows have taken First Premiums at the State Fair, at the Northern District Fair, at the Upper Sacramento Valley Fair, and the State Agricultural Society Premium of $40 for the best Gang Plow, after a fair test and competition with the leading Plows of the State.

Champion Deep-Tilling Stubble Plow,

Took the First Premium over all competitors at the State Fair, 1871. It furrows 14 in. deep and 24 wide.

This Gang Plow combines durability with cheapness, being made entirely of iron by experienced workmen, of the best material. Over three hundred are now in use, and all have given entire satisfaction.

Manufactured and for sale by the

SWEEPSTAKE PLOW CO.,

At SAN LEANDRO, CAL., under the personal superintendance of the Patentee, F. A. HILL,

And also by most leading Agricultural Dealers in the State. Send at once for Circulars, prices, etc. 21v3

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

TUSTIN'S PATENT
FIRST PREMIUM WINDMILLS

ARE THE MOST POPULAR
Of any on the Pacific Coast.

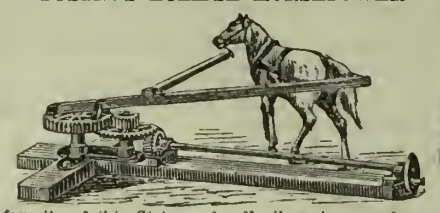
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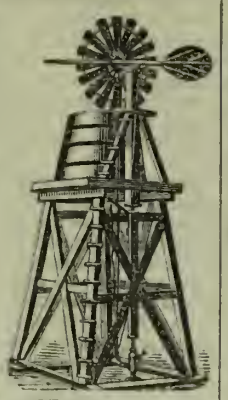
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TUSTIN'S ECLIPSE HORSEPOWER



Eureka.





Economy.

Is now the favorite of this State, and sells three to one of any other make.

☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the Golden State Windmill, which is an infringement on the Celebrated "Eureka" Windmill, for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

MANUFACTORY, corner of Market and Beale streets.....SAN FRANCISCO.

W. I. TUSTIN, Inventor and Patentee,
se16-1am3m And Pioneer Windmill Manufacturer of the Pacific Coast.

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street.....SAN FRANCISCO.

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— OF —

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

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THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

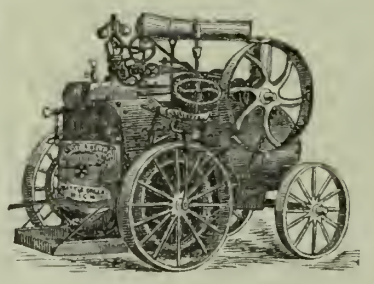
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KELLER & CO.,

CORNER 10TH AND K STREETS, SACRAMENTO.

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

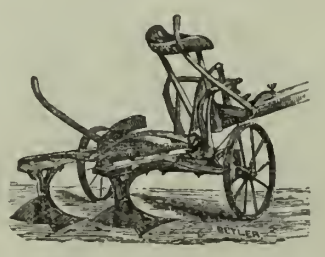
READY'S PREMIUM GANG PLOW.

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

☞ Please call and examine. 17v4-1y

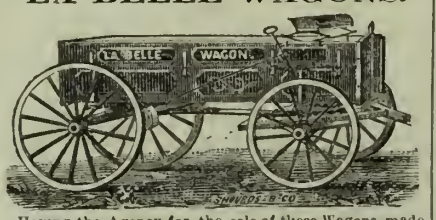
Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

LA BELLE WAGONS.



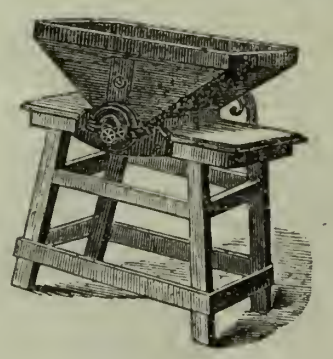
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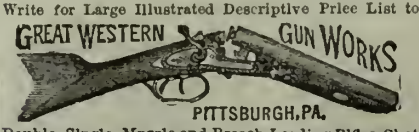


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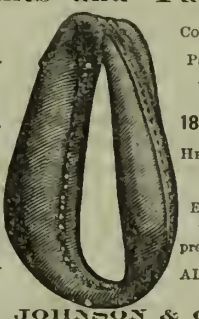
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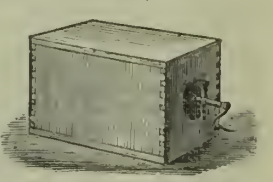
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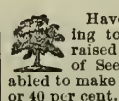
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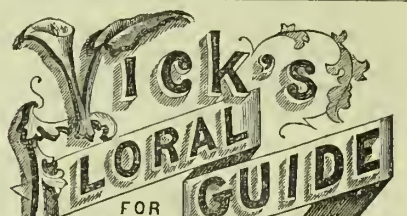
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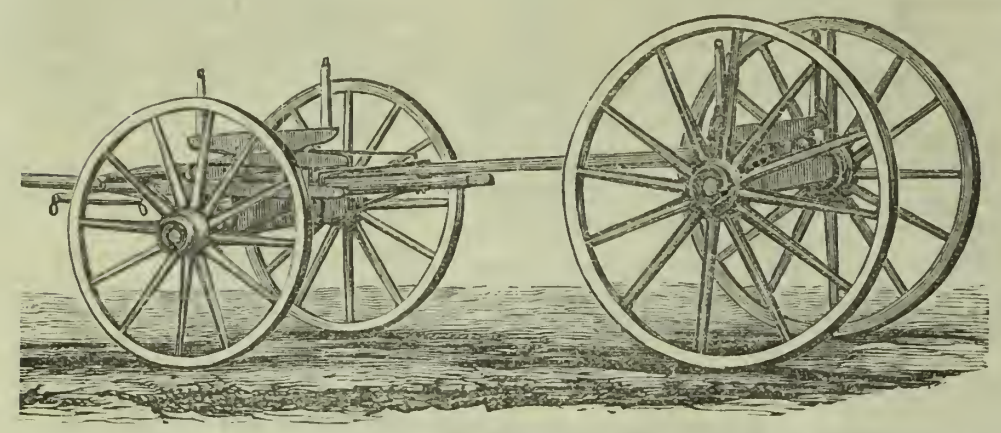
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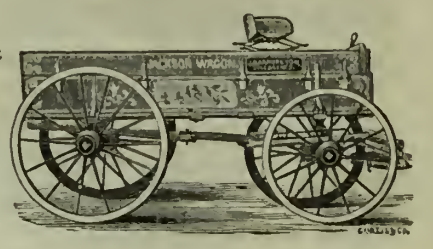
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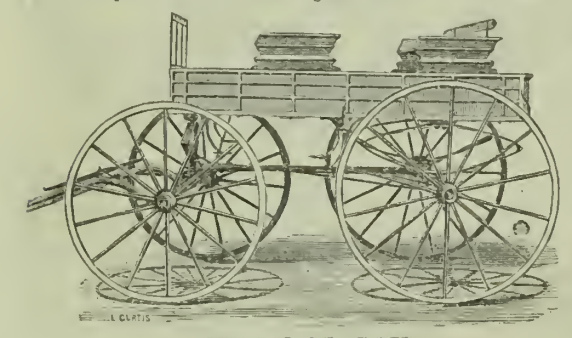
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From those who have used

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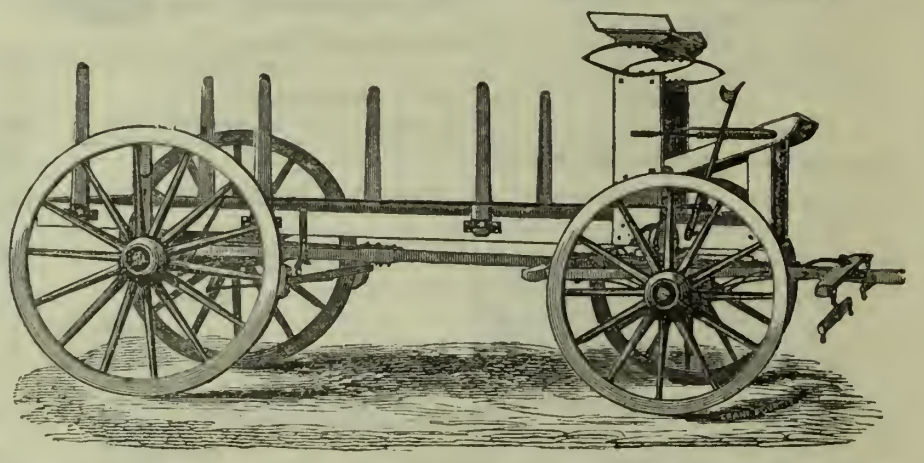
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To stand this dry climate of any that have been

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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JANUARY 18, 1873. [Number 3.

Fish Culture.

Within the last sixs year a great deal has been said and written on the subject of fish culture, and widely extended and very successful experimcnts have been made resulting in establishing the fact, that where conditions are favorable, that an acre of water will yield as much profit to the owners from the sale of fish, as is usually derived from an acre of land cultivated to grains or vegetables.

Among the varieties of fishos most cultivated in the rivers and ponds of the East, we notice the salmon and shad for the larger rivers and for brooks, ponds and the little lakes that abound in New England and elsewhere at the north, the black bass and trout are pre-eminently the fish for domestic culture.

Livingston Stone, Deputy U. S. Fish Commissioner, proprietor of Cold Spring trout ponds, Charlestown, New Hampshire, and Secretary of American Fish Culturists' Association, in his admirable and standard work on Domesticated Trout, says:—

The trout has always stood at the head of the fresh water game fishes in the popular estimation. The fickle public may change its favorite some time for a more admired successor, but up to this time the trout has distanced all rivals. This honorable place he has gained and held, not by accident but by merit. He deserves to rank by himself *first*, for where has the trout his equal? There may be fish of nearly as fine flesh as the trout, but they have a repulsive coat like the pout; or a coarse appearance, like the bass; or a disagreeable one, like the mascalonge; or are full of bones, like the shad; or have no game in them, like the mullet; or fail somewhere to match the excellent points of the trout. There is not one of them that for perfect faultlessness can compare with the trout. This is his special peculiarity. He is *faultless*. He surpasses all other fish in grace of form, in beauty of coloring, in gentleness of expression, in fascination of manner, in gameness of spirit, in sweetness and firmness of flesh, and in general personal attractiveness, and to excellence in these points he also combines faultlessness in all others. Hence it is that he is the favorite among fishes, and deserves to be so.

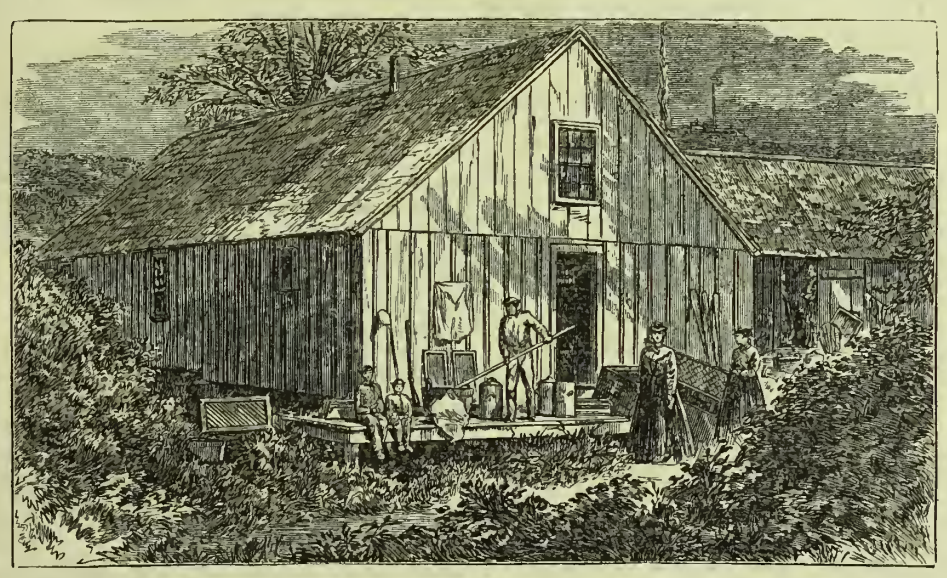
Trout are peculiarly suited to domestication, being very hardy, easily tamed, conveniently confined, satisfied with plain food, well adapted to artificial breeding, prolific enough to increase rapidly, and having a sufficiently high value as live game, or as a table luxury, to make it worth while to raise them.*

The illustration which we present herewith is a view of the hatching house at Cold Spring Trout Ponds, the property of Mr. Stone, taken in 1868. Since that time, exceedingly interesting and important discoveries have been made in the hatching and culture of trout, which improvements we may introduce to our readers, with cuts illustrative, in future numbers of the RURAL.

There are many places in California, where valuable trout fisheries for the culture of fish for the amateur or even the general market, might be established at very little cost; but as there are certain requisites necessary, to make the business a success, it becomes a matter of interest to be informed in relation thereto, before expenditure in this line is made, and perhaps disappointment incurred, from too slight an acquaintance with the subject.

Trout culture is a grand success in the Truckee river, the outlet of Lake Tahoe, and large quantities are annually sent from thence to all parts of the State and Nevada accessible by rail. But as beef or animals' livers, hearts and lungs are the principal food of domesticated trout, where such can be procured, it is evident that the vicinity of cities or slaughtering houses where this kind of food can be surely and cheaply obtained, would be a desirable locality for trout ponds; all other requisites as an abundance of cold spring water, a natural and abundant fall and other requisites being obtainable.

*The excellent work from which the above extract is taken can be had of A. Roman & Co., Booksellers, 417 nd 419 Montgomery street, San Francisco.



VIEW OF HATCHING HOUSE AT COLD SPRING TROUT PONDS, CHARLESTOWN, N. H.

Sowing in the Dust.

One of our Eastern readers asks what we mean by "dry seeding," or "sowing in the dust." We will not *rise* to explain, but being comfortably seated will remark, that in California thousands of acres are fitted for wheat, by plowing in the spring and early summer, and, as there are no more rains after that, no weeds or grass grow, hence the land is in splendid condition for being sown with wheat in the fall.

When it happens that no early autumn rainfall occurs, these fallow fields are simply immense dust beds, and as a correspondent of one of our exchanges remarks: The wheat is put in by a system of dry plowing, unknown to your people, with a mongrel implement, called a chisel point, between a gang-plow and a cultitor, covering a space of from six to eight feet in width, and drawn by from eight to ten animals. The grain is first sown, then this insrtnment is put on, and then amid a cloud of dust that entirely hides the operator and team, the crop is called *put in*, and a prayer is put up to Jupiter, who is said to rule the skies, to send down showers to crown their labors with success.

Thousands of acres of what we term volunteer crops, are also put in, in this way, which is simply plowing with the peculiar instrument named, the stubble ground of last crop, in which condition it remains for the first rains to bring up the expected crop. It is a very rapid way of seeding and plowing a large area of ground at very small expense, whilst a fair crop of grain annually results, if the season proves propitious.

EUCALYPTUS FOREST.—If any one wishes to view a forest of blue gum trees before planting that variety, they can do so by visiting the lands of Mr. James T. Stratton, near Haywards, where he has over 50,000 trees in forest culture. He also raises immense numbers of trees in nursery annually, for sale and without the use of pots or other "cork screwing" devices.

Trees for Shade and Ornament.

It is quite natural when we set out a tree for shade, to wish for a speedy growth at least till the tree attains a desirable hight; but how after that? It is just this, that the tree is becoming too large; not much in the way it is true, but giving us a little too much of a good thing, too much shade. It is injuring, by shutting off the sunlight, every other smaller tree within the circle of its influence, and positively ruining every flower-bed and border, its roots can reach, by grossly feeding upon what was intended to be for the flowers only.

From this time on, as long as they, the big trees are permitted to stand, they remain a nuisanco, and the sooner they are removed the better. What we want in our dooryards and lawns are, beautiful, symmetrical, but slowly growing trees, such as can stand for a lifetime. These should have ample room to develop without being subjected to excessive or close pruning.

But instead of looking forward and considering what a tree will be ten years hence, we try our best to get a tree that in three or four years shall equal in extent of foliage and depth of shade, a tree of ten years' growth, and then to hasten the extent of shade crowd too many in too small a space.

Americans are proverbial for crowding things, and they are now with us doing it with the Blue gum trees of Australia; we are getting Eucalyptused, or making a mistake in every where setting the Eucalyptus, a tree admirably adapted to close forest growth for the production of timber, but no better calculated to represent sylvan beauty in the dooryard of small extent, than an ostrich would the feathered tribe, in the cage of a canary-bird.

GRAIN SACKS.—Mention has been made to the effect that the Oakland Farmers' Club made arrangements by which grain sacks were or had been procured at eleven cents. We are authorized to state that no such arrangement was made, nor did any other Club succeed in doing it, at that rate to our knowledge. We did hear, however, that the Santa Clara Club succeeded in procuring sacks at a somewhat reduced rate compared with prices generally charged. It is to be hoped that the Farmers' Union will be able to offer to local clubs an opportunity to obtain sacks at reduced rates.

Trees in the Kitchen Garden.

We would caution our young beginners in horticulture and gardening, against the too common practice of growing large fruit trees in kitchen gardens, as the apple, pear and cherry trees are often found high enough to require a thirty or forty round ladder to gather the fruit.

These towering trees are much more hurtful in the kitchen garden than is generally allowed; as their roots in the well cultivated mold of a garden run a great distance, and the crops underneath the shade of the trees are very indifferent in quality.

As most gardens are more or less frequented by the family and their visitors, good, useful crops are certainly more interesting than poor ones, with an indifferent crop, perhaps, of apples or pears on the trees which overhang them. It is better to have the trees by themselves and the garden by itself; the trees will do better because they can receive the culture best for them which is properly surface culture, whilst the garden can be deeply plowed to insure good crops of vegetables, which would be injurious to the roots of the trees.

The main object in recommending this system is, to relieve the garden from those high, sometimes broad, overshadowing trees which greatly injure so many plots of vegetable ground. Trees are often too near; though on the outside of a vegetable garden, they injure by their shade and they send their roots long distances foraging; and the more rapid growing kinds will soon devour the very fat of the land.

We have seen a root upwardsof fifty feet long, and nearly as thick at one end as the other, where it had got into the line of a flower border of good material, and speedily found its way to the furthest end of it. Trees on lawns will also search out flower beds, and occupy their enriched contents with astonishing rapidity, to the detriment of the proper tenants there.

The Horse Epizootic.

We learn that this malady has made its appearance at Salt Lake, and is making its way westward, and may possibly reach us before spring. Well, suppose it does; we have heard of its appearance and then its progress from the eastern cities to the western, as being a disease from which but few animals escaped, and from the effects of which, but few comparatively, died.

As a sanitary measure, rigid cleanliness and a full and perfect ventilation of every place where horses are kept in buildings or stables should receive careful attention, and yet care must be had, while ventilating freely, that animals are not exposed to cold drafts of air; beyond this little or nothing more that we have heard can be done as a preventive. When the disease really makes its appearance here—if it does—then we have as a guide the experience of those who have had the best success in the Atlantic cities as to mode of treatment; at present we see no cause for alarm.

EARLY WILD STRAWBERRIES. — The native strawberry of the sandhills between the city and the Cliff House, are in full flower, and in a few of the more sunny hillside places, the berries are fully formed. Early peas are in blossom; green peas yet in the pod are in the market places, but getting scarce.

CORRESPONDENCE.

California Pork.

EDITORS PRESS:—I wish to preface my remarks with an apology for the hog. Yes, Sir, for the "whole hog" and hogs in general.

The hog is a badly abused animal. I am not prepared to say that he is faultless, or entirely iunocent of the many high crimes and misdemeanors laid to his charge; but I maintain that he is often unjustly accused. He labors under the imputation of being a gross feeder; I will not stay to inquire into the origin of this charge, but simply remark that what constitutes "gross food" is a matter on which few are agreed, and if the fastidious person who finds fault with good country-fed pork, and prefers delicate(?) white fleshed chicken or savory goose, could see chicken, goose and pig at home, I think the goose and chicken would be called by ugly names, and the pig be thought a cleanly and wholesome animal.

Then this bugbear of "trichinæ." One might suppose that every pig was affected with those parasites that prodnce "measled pork," and that such a thing as the sale of diseased beef or mutton was unheard of. Let any who are especially nervous over eating pork, take care to cook it thoroughly and so destroy the possibility of its being noxious.

"Mad Itch."

Of late the hog has been accused of causing "mad itch" in cattle. Practical farmers are inclined to "look and laugh at that." If trichinæ find their way into cows the microscope could detect them in their carcasses as readily as in those of the hog; and how they cause derangement of the brain without appearing in the intestines, etc., I am unable to conceive. It is a usual practice in this couutry to run them together on the same grass, etc., and I have neither seen nor heard of any "mad itch" during a seven years experieuce.

Breed.

Breeders for fancy who can afford to make "drawing {room" pigs of their stock may indulge in Chester Whites, or any kind of "pintos" that they choose. Farmers who can't afford to pay for style, will do well to stick to black, Berkshire or Essex, or a cross. White hogs are very apt to "scald" in our dry, hot climate, and moreover, are prone to mauge. Any one possessing good Essex or Berkshire stock may feel proud in the possession of a *ne plus ultra* breed. But do not breed "in and in." It is a prime requisite in all kiuds of stock to introduce frequent change of blood; without this your stock will run down.

Feed, Etc.

There are few places in the Southern coast counties of California that are naturally suitable for "hog ranches." A pig would die where sheep and cattle might be "rolling fat." Succnlent herbage or roots must bo provided for hogs when grain and acorns give out. Hogs are and have heen raised with profit in the following way: During rainy season by running them on grass; although while the grass is very short, it is almost a case of "root hog or die;" so hog does root, and digs up worms, roots etc., which keeps him going until grass starts ahead. When natural herbage gets too dry to be palatable, a field of voluuteer barley must be ready to receive the hogs that are to be fattened, and on that they are kept until harvesting is over, and the stuhbles are ready. These being cleaned out, fat hogs are sold, and stock hogs may be driven to the mountains, provided there is a tolerable crop of mast, which should suffice to keep them until raiu comes once more.

As the country settles, this method bccomes more aud moro impracticable, and hogs must be wintered at home instead of run out on mountain ranges. For this purpose few crops are so suitable as the mangel wurzel. With good cultivation on suitable land, fifty tons or more may be raised per acre, and this, with the help of a ton of barley, would keep one hundred grown hogs for three months. Pumpkins are better food, pound for pound, but yield far less per acre, aud cannot he kept so long as beets buried underground, or beets can be left standing all Winter aud Spring, if frosts are not too severe, and when going to soed are still good pig-feed. In this way many pigs can be raised on a small piece of land, and fattened either on stuhble, or in a small field of uncut barley.

It is by far too common a practice to starve pigs half the time and surfeit them the other half. I am no advocate for keeping growing pigs too fat; but still less do I believe in stinting food, and so stunting the growth — thinking that poor, pot-hellied runts from half-starved, stunted mothers will "come out all right" when turned on the stubble. My experience tells me that one well-hred and well-kept sow is more profitahle than half a-dozen, long-legged, razor-backed, wolf-snouted, starving creatures, raising hig litters of miserable pigs. No animal pays so well for a dash of good blood. A well-bred pig both eats less and put on more flesh than a "runt;" and produces more solid meat in proportion to weight of carcass. Hogs of good breed have also this advantage over other stock: they are marketable and readily fattened at any age; but they *must be* of good breed. Practically I have known hogs that the most liheral feeding would hardly have any effect on; while I have had, and still have, others that I can hardly keep from getting too fat for breediug purposes.

In conclusion, beware of keeping a larger stock of hogs than you can feed. Of all miserahle sights on a California ranch a set of starving hogs howling rouud the door-yard is one of the most miserable, least profitahle and least excusable!

Bacon.

Any one who is afraid of work need not read this. But auy one who likes good bacon and has the grit to make it can follow these instructions: Let your hogs be "hard-fed" for some weeks previous to killing; and choose, if possible, clear, cold weather for the operation. Kill overnight, and cut up early in the morning, before the flies get about. The larger your pieces, the less waste and the easier to handle. In cutting the hams, remove the boue of the pelvis, but do not let any one persuade you to cut out the leg-hone—it ruins the ham. Have ready some saltpetre, finely po vdered, mixed with three times its bulk of salt—Bay or Liverpool salt.

Take each piece separately on a table and rub it well with very little of the above mixture, near shoulder-hlades, and in hams and other places where the meat is thick and where there are hones run in yonr knife and force in a pinch of the mixture; then rub thoroughly all sides with plenty of salt, and pile the pieces one on another, with a thin layer of salt between. Put the fleshy sides together.

For a week turn every day, rubbing well each piece, and putting fresh salt in the knife-holes, and using fresh salt to rub with all over. The next week every other day will suffice, and thereafter every third day. If hogs were under 200 lhs., live weight, your bacon may be put in the smoke-house in less than three weeks. If larger, more time will he necessary; use oakwood to smoke with, and let it be dry. Any place will do as a make-shift, if you have no smoke-house. I have smoked bacon in an old coal hogshead, hy putting the fire in a hole in the ground. Smoke for ten days or two weeks, according to taste. Then stow your bacon away in old dry-goods boxes, putting some kind of chaff or bran between the pieces, and do not touch it for a mouth. By that time you will have an article that you will be proud of—good, firm, well-flavored bacon, ahead of auy "Chicago sugar-packed," greasy meat that your neighbors pay 18c to 20c a pound for.

Never mind who says you canuot make good bacon — pitch in and try! Put in the work, and success is yours! E. B.

A Correction of Corrections.

EDITORS RURAL PRESS:—I was surprised to see in your paper of Dec. 21st, some statements of Mr. Minto in regard to my sheep. He has made a greater and more willful blunder than your travelling correspondeut. Mr. Chapin I believe to be a gentleman and a man desirous to do the right thing honestly.

In April, 1861, I bought of Minto & Holman, one thoroughbred Merino Ewe and have the certificate of such sheep from Mr. Minto.

In September 1863, I bought of Donald Mc Leod one thoroughbred Spanish Merino Ewe lamb.

I copy Mr. McLeod's certificate: "This is to certify that the ewe lamb I sold to T. L. Davidson is pure Spanish Meriuo, out of Patterson & Hammond's stock of imported sheep."

DONALD MCLEOD.

Sept. 1863.

July 1865. Bought of John Minto, two thoroughbred Merino ewes, twins one-year-old

Sept. 8th, 1865. Bought of Rev. J. L. Parrish, one thoroughbred Spanish Merino ewe lamh.

Oct. 1871. Bought of J. B. Roberts, 11 head of Spanish Merino Ewes and two Spanish Bucks and two half bloods. Thcse sheep are directly descended from the Rockwell importation, from sheep sold to Rev. William Roberts, by Mr. Rockwell.

Sept. 1866. Bought of J. D. Patterson, one yearling Spanish Meriuo Ram. Mr. Hammond's famous "Gold Drop" was his gr. gr. gr. grand sire. I have Mr. Patterson's certificate of the pedigreo of this sheep running back to the beginning of Mr. Hammond's first breeding.

Oct. 1869. Bought of Mills & Luelling one thoroughbred Spanish Merino Ram, imported into Oregon, in 1865, hy J. D. Patterson.

Now Gentlemen Editors, you see I have the papers, I will explain my plan of breeding. I have two strains of blood in my flock. One the American Merino, the other the Spanish Merino. The American strain is founded upon ewes bought of Mr. Minto, and bred constantly to Spanish Bucks. The Spanish strain is founded upon Spanish ewes bought of Donald McLeod, Rev. J. L. Parrish, and John B. Roberts.

The larger part of my flock are Spanish Merinos and the greater part of them from the McLeod ewe and her descendants, she having horne some six or seven pair of twin ewe lambs, and having never borne but two buck lambs.

The sheep shown by me at the Oregon State Fair, were all descendants of this McLeod ewe but three. Two of them from the Roberts' flock, an ewe andlamb, and one lamb (63-64,) sixty-three sixty-fourths Spanish, and one infinitessimal sixty-fourth Anstralian.

Mr. Minto's clap-trap about furnishing everybody hreediug material is all nonsense. There are pleuty of fine sheep breeders in Oregon. Mr. Thomas Smith of Rosehurg, has a large flock that he purchased of Douald McLeod. Another gentleman near him has a larger flock, Mr. Knox has a small flock, Mr. Naylor of Forest Grove, has a number, Mills & Luelling and other getlemen; also R. Smith my nearest neighbor. To none of theso gentlemen has he furnished ewes to breed from.

The deductious of Mr. Chapin in regard to my flock are certainly as nearly correct as a correspondent could get. My very best sheep are all from Rockwell, Patterson, and Hammond crosses, and not from the strain purchased from Mr. Minto.

Mr. Minto should have informed himself before he wrote his corrections. No man should dare to write the pedigree of his neighbor's stock without first consulting him about it.

The truth of this whole question lies right here: Mr. Minto and I have heen hreeding fine sheep for a numher of years, and run ono another pretty warmly every State Fair, and I have rather been gaining on him of late and last State Fair took all the premiums I offered for, hoth first and second.

Gentlemen of the RURAL PRESS, I have written this article mainly to defend your correspondent from Mr. Minto's insinuations that he did not tell the truth, and also to defend the reputation of my flock of sheep. This is all the good this article will do except it will show you Californians that we have some good stock up here, and that we are in earnest about it.

The weather is a little frosty, clear and beautiful, a magnificent winter so far. Money scarce, and wheat low—seventy-five cents per bushel. You talk in California about monopolies. Nousense, if you had Ben Holladay hold of your throats you might squirm. Oregon groans, and her only salvation is the success of the Northern Pacific Railroad.

T. L. DAVIDSON.

Oak Hill, near Salem, Jan. 1st, 1873.

Ventura to Los Angeles.

EDITORS PRESS:—The rain which began falling on the night of the 22d of December, continued with intervals of cloudy weather and mild, up to the 29th; in the amount and manner of its coming it was as nearly perfect as it is possible. There was about four inches, a little more in some localities hereabout, and possibly a little less in some, but for the amount no rain we have ever taken note of has moistened the dry earth to such an extent. That four inches of water penetrated and saturated the ground from one to two fect, accordiug to condition. In the hard trodden road and upon the more compact fields and pastures the grateful draught was only imbibed, as one might say, to moisten the mouth of thirsty earth; but wherever the cultivation had been thorough and recent, the nectar tickled more than the palate and was drank deep.

The croakers had been garullous for some weeks and when the rain came it found them and the drones unprepared. Bnt with the majority of Southern Californians this pluvial hlessing was reccived with a gratitude unuttcrable. The three years of drouth that have just passed cannot be realized by the people of the northern half of our coast, and even as far south as Santa Barbara there was only a partial failure from lack of rain.

The suffering has been felt by the southern counties more keenly as they were beiug occupied and farmed by now comers, many of them from Eastern States, wholly or partially unused to the long dry summers of this Pacific slope, therefore nothing could have been more acceptible than the general and most beautifully penetrating rain.

The hills aud valleys are alrcady covered with the mantle of verdure, and although the storm was of such long duration, it came and went so gently that hardly a lamb even pcrished by exposure; and although the feed in some places was almost totally gone, the stock generally passed through the time between the first rain and the starting of grass much better than is usually the case.

For the past three years we have not ceased any of our ordinary out door occupations on account of storms, nor did we lose an honr at a mill by this. We started southward upon our concluddjourney through Ventura county beforo the rain had fairly ceased, and were fully rewarded for any slight wetting by the magnificent variety of cloud and sunshine that illuminated or darkened the valleys and mountains of the Santa Clara.

We are naturally buoyant, but more jubilant than usual, for the new dress nature was fast assuming under the effect of the warmth and moisture.

Everything would be *color de rose* if we could exclude from our senses the outward evidences of "mans' inhumanity to man." But in our ride up this beautiful valley, with its generous supply of running water, we come on every hand upon the poor settlers who have been driven hither and thither by the landgraspers who have managed to extend the interminable grant over every available acre.

This Santa Clara is probably the most feasible railway route to and from the southern part of the State and Coast counties; and although at present sparsely settled and almost wholly undeveloped, is without a doubt one of the most productive in capacity of any like area in the State.

Our ronte followed the windings of the Santa Clara for thirty miles, and in a sonth and easterly direction until we arrive at the junction of the San Francisquita, where we turn westward toward Los Angeles upon the Visalia and Owens River road, which is intersected at this point.

The petroleum is here again met with; for we are still in the peculiar sandstone and shale formation which accompanies the asphaltum and petroleum regions to the northward. What was originally called Lyons' Station is now Petropolis (preteutious?) and reminds one of the Mountain Caravauseries along the old road to Nevada.

This station is in a picturesque locality surrounded by live oaks and wild walnut, completely embowered and hidden, so that the traveler drops upon it as an agreeahle surprise at tho eastern hase of the dividing chain of mountains that skirt Los Angelcs and San Fernando valley on the east.

Rising to the top of this ridge one looks Southward and Westward over a hasin of 25 miles in diameter, enclosing the Old Mission of Sau Fernando and the rancho of the same name. We believe this is oue of the estates of the original Spanish occupants that remains—a portion at least, in first hands. The DeCellis retaining 56,200 acres out of 115,200 which the whole rancho contains.

This is the basin and reservoir of the Los Angeles river, and is so arranged as to retain and hold back the moisture which gives the never failing supplies, that irrigate the gardens and orange groves of the city of the Angels. That attitude has an important bearing upon the condensing or rain capacity of our locality, as is verified in this viciuity.

The amount of rainfall lessens as we go sonth all the way from the mouth of the Columbia to the San Diego; but in the vicinity of the higher elevations of Los Angeles and San Diego there is an exception to the rule.

Since the atmosphere has been cleared by the rain, vision is almost unobstructed; the mountains twenty miles away showing every feature in the clear cut outline, the light and shade of the corrogations on their sides tinted off in purple, brown and buff, to variegate this frame in which is set the lovely picture. And this morning, Mount San Bernadino and even Sau Jacinto, one hundred miles away, are as plainly scen glistening with their snow crowns, as though they were within ten miles. F. M. S.

Los Angeles, Jan. 5th, 1873.

Fruit Packages.

[Written for the PRESS.]

These, as well as questions of freight and commission are important elements in the problem of reducing the margin between what the consumer pays and what the producer gets. As we are consumers at work for the producing class, this problem interests us in both its aspects.

Questions of this class are worthy the discussion of Farmers' Clubs aud we hope to get items of interest from them. In the meantime we shall do our best to find ont what they need and where they can be supplied. Let us do our talking and planning now; in peace prepare for war.

Fruit Packages Should be Neat

And tasty; for we must always sell to the eye before we can sell to the mouth, and in a crowded market what looks best will sell first and the rest will be left. Fresh packages always look best and this is one of the great advantages of the

Gift Package System

In voguo at the East. Thcre the apple and potato barrels are never returned, and the strawberry baskets seldom. They should be

Strong,

For they must be tumbled about in a hurry on cars, boats and drays. If sqnare boxes are not strong enough to hear dropping on the corner when filled, some will be broken. A small percentage of total loss from this cause will make a sad showing in the profit and loss account.

Light,

For we must pay as mnch freight on extra lnmber as we do on fruit, and any unnecessary material is so much added to the cost.

Cheap,

For a hit saved in the cost of a box is a bit added to the profit. This small item when multiplied by the thousands that must be bought, makes a large sum.

If we could save the State a cent on each grain sack used in California, it would be a great deal more than the PRESS costs for its whole yearly issue.

Let us hear from the farmers in regard to the comparative merits of the various packages now in use. Let them give their suggestions for improvement and let the manufacturers tell us "What they are going to do about it." C.

Poultry Notes.

Squash and Pumpkin Seed for Poultry.

In our issue of Jan. 4th we gave a letter to to the N. Y. Farmer's Club from J. N. Bookstaver of New Jersey, to the effect that he had found squash seeds fatal to his poultry; also another from Mr. Anderson of Michigan, that he had found the same true also of pumpkin seeds.

We have since seen a letter addressed to the Club from "H. E. U." of Long Island, in which he thinks the fowls above alluded to "went died" of dropsy of the crop, a disease not uncommon among the feathered tribe when permitted to gorge themselves, as they are often injudicious enough to do. The fact that a fowl is suffering from this disorder may, he says, be ascertained by observing the crop puffed out and swollen, and filled with fluid and quite soft when handled. When this happens pills of soap rubbed with powdered rhubarb should be adminstered, three as large as peas, at a dose; if this does not bring relief half a teaspoonful of castor oil may be given, either of these medicines to be followed with six pills of bread crumbs, with ginger or red pepper, which should be fed daily for several days. The food should be scalded meal, fed slightly warm and moderate in quantity.

If neither of these remedies are successful, the crop may be punctured with perfect safety, and the fowl will mend at once. The skin should be carefully slit up with a pair of sharp scissors, for an inch and the crop laid bare. A small opening is then to be made in the crop and the liquid allowed to escape. The wound in the crop is then drawn together by means of a stitch passed through the lips with a common needle and thread, the ends of the thread tied and cut off. The wound in the skin is then treated in the same manner, but it is better to put two stitches here; each stitch should be separate—not made as in sewing cloth, but the thread passed through both lips of the wound, and the ends tied and cut off. This is a surgical stitch. When fowls are crop-bound or gorged with food and go around gaping and stretching their necks as though they were choking, they should be taken instantly and relieved in this manner. Food of a soft character, as soaked bread, or boiled mush, should be fed moderately for a few days, and no harm will accrue. Our correspondent states that he has saved several light Brahmas in this way, and never had any subsequent trouble with them.

Experiment in Raising Chickens.

G. P. Wilcox, of Little Falls, says: "The following results of careful experiment in the raising of chickens, and the preliminary arrangement thereto, will be interesting to all readers who would raise fowls for market, expecting to make the business profitable. An experiment with thirty hens and one rooster was tried for sixty days, also a rooster with six hens for the same length of time, to see what would be the effect as a matter of fact in the two processes of breeding fowls, and to ascertain the effect upon the embryo in the egg, after the expiration of sixty days, in the two lots of fowls, which of course were not allowed to communicate with each other, nor any other fowls; the result ascertained was, that, at the expiration of sixty days, the embryo in the eggs of the six hens was found to be double the size of those in the thirty hens, and, that few of the eggs hatched in setting of the hens among the thirty fowls, while nearly every one of the eggs were hatched from those obtained from the six hens; and the vigor or strength of the chickens of those of the six hens at the time of their hatching was fully equal to those from the hatching of the thirty hens a week old. It will be necessary only to state that neither of these lots of fowls were confined, but had a large range, and were the result of the breeding of fowls that had been kept in the same manner for a series of generations, neither had they been degenerated by breeding in-and-in, but with reference to the production of healthful and vigorous broods of chickens."

Mr. Mechi on Poultry.

Father Mechi, the celebrated English Agriculturist says, in the *Gardeners' Monthly:* Poultry is evidently dear food to the consumer; but does it cost more food to produce a pound of poultry than a pound of meat, live weight? I answer decidedly not, but the reverse. For my cattle and sheep don't eat worms and insects, whereas fowls consume them abundantly, and economize and apply every scattered seed or kernel that would otherwise be wasted. In another point of view, is the cost of attendance and shelter greater with poultry than with cattle? I reply not. As to the production of eggs, that depends upon the quality and quanity of food administered; and the accompaniments of proper warmth and shelter. There is no fear of overstocking the market with either eggs or poultry. I generally keep from 300 to 400 fowls. They have free access to every field during the whole of the year, and although they help themselves at harvest time, I always get my best crop of corn on the fields adjoining the hen house. I have this year two fields of wheat drilled, only one bushel of seed per acre. They come within ten to twenty yards of the fowl house, and are a perfect plant, although the poultry have been scratching and cultivating the fields ever since they were drilled; but we are apt to forget that fowls, like sheep, manure where they go. I must say I used at one time to feel nervous and angry when I saw them hard at work on the newly sown corn, but I soon learned to feel confident that insects were their principle gain, and that my well and deeply-deposited corn escaped.

To Obtain Good Laying Hens.

It is claimed that there is as much advantage gained in paying strict attention in selecting hens with prolific tendencies, from any breed, as in selecting good milkers to improve the dairy stock, and the hypothesis—perhaps established fact—is one that stands to reason. Every one who keeps fowls is well aware certain ones are greater egg-producers than others of the flock, and the eggs of only such as these should be saved for the purpose of increase.

One writer on this subject says that he is perfectly certain that the number of two hundred eggs per annum may be attained in a few years' time with perfect ease should the object be systematically sought. It is a matter within the means of all who feel interested in it and one that can be easily tested, without any knowledge whatever as to fancy points. If the poultry flock of a farmer can be made to produce double the eggs usually obtained from a certain number of hens the improvement will be a paying one.

Mr. L. Wright says, upon the same subject:—In every lot of hens some will be better layers than others. Let us suppose we start with six Houdans—a cock and five hens. Probably out of this five two may lay thirty eggs per annum more than either of the others; their eggs should be noticed, and only these set. By following this for a few years a very great increase in egg-production may be attained. My attention was drawn to this subject by a friend having a Brahma pullet, which laid nearly three hundred eggs in one twelve-month, though valueless as a fancy bird, and the quality descended to several of her progeny; and I have since found other instances which prove conclusively that a vast improvement might easily be effected in nearly all our breeds, were that careful selection of brood stocks made for this purpose, which the fancier bestows on other objects. It is to be regretted more is not done in this way; any having more room than I had, I hope myself to make some experiments in this direction shortly. I will say now that I am perfectly certain the number of two hundred eggs per annum might be attained in a few years with perfect ease were the object systematically sought. I trust these few remarks may arouse a general attention to it amongst those who keep poultry for eggs only, and who can easily do all that is necessary without any knowledge whatever of fancy points, or any attempts to breed exhibition birds.

Helping Chickens From the Shell.

Many of our best books on poultry discourage any attempt to assist a weak chicken when its own efforts to burst its prison walls are ineffectual. It is urged that any excitement about the nest worries the hen exceedingly; that the operation is an exceedingly delicate one, not to be readily or hastily performed; and that even when the poor little creature survives at the time, it will not live to maturity.

With regard to those objections, we say, when it appears that part of the brood have been hatched some time, twelve hours, perhaps, let the mother with the chickens already out be furnished with a fresh nest where they may have a little food within reach. If an egg has been "chipped" and no further progress made, take a pair of sharp pointed scissors and cut up to the blunt end of the egg, and in that vicinity remove one-third of the whole shell, but do not draw blood; then place what remains in the nest under the hen.

Our experience has shown that with this treatment death was an impossibility; the probability, life and strength. The writer once employed this method upon an egg after it had been "chipped" and lain wholly uncovered for fifteen hours. In six hours the chicken was on its legs, and afterwards grew to be a heavy, healthy bird.

A chicken which is too feeble to hatch naturally must surely die if assistance be withheld; on the other hand, there is every reason to expect that nature will rally when encouraged and stimulated by the co-operation of man, and that we shall be rewarded for our trouble with that satisfaction which results from the saving of life.—*Jour. of the Farm.*

Preserving Eggs.—A Parisian paper recommends the following method for preserving eggs: Dissolve four ounces of beeswax in eight ounces of warm olive oil; in this put the tip of the finger and anoint the egg all round. The oil will immediately be absorbed by the shell and the pores filled up by the wax. If kept in a cool place, the eggs, after two years, will be as good as if fresh laid.

Miscellaneous.

The Use of Zinc.

In France, Belgium and Germany, the area of roofing annually covered with zinc is from 40,000,000 to 50,000,000 sq. ft., and the experience of 50 years shows that it forms a perfectly sound and nearly imperishable roof-covering. In England its use is unpopular, if we may use the expression, and mainly, we think, because the principles upon which it should be used are yet hardly understood. When first introduced, about the early part of the present century, there were no English workmen who thoroughly comprehended the nature of the material with which they had to deal, and a special knowledge is absolutely necessary.

In the first place, the expansion and contraction of zinc under atmospheric influences are greater than those of other metals in ordinary use. Copper, which is very efficient, but rarely used on account of its cost, approaches it most nearly, but the expansion and contraction of zinc is *pro rata*, nearly one-third more than that of copper. Therefore in the construction of drips, laps and other uniting points, it is necessary that, while being sufficiently sound to keep out the weather, a certain "play" to use the technical phrase, should always be allowed. Any attempt to solder together a zinc roof into one homogeneous body is certainly followed by buckling, cracking and failure, and this was a fruitful source of trouble in the earlier transactions.

Another mistake made was, that the zinc was used too thin. The process of oxidation which this metal undergoes is peculiar. The rusted surface does not rub off or blow away, but forms a sort of hard crust of enamel upon the surface of the metal, and, when laid upon boarding which is or may become damp, or exposed to steam or condensation below, it rusts on both sides. The thin zincs first introduced into England in this way were rusted through they then became brittle, and failure was the result. But if the zinc be of sufficient thickness, after a certain period of time oxidation ceases, and we have a body of solid, sound metal, encased above and below by a solid coating thoroughly impermeable to the accidents of weather or temperature, and which requires no painting. To give the exact figures as described in the trade, No. 9 gauge is too thin, and perishes. No. 14 gauge may be generally recommended as sufficient.

There are various ways of laying the zinc. First, it may be laid in a corrugated form without boarding, the trusses of iron or wood of the roof carrying the weight; or one may lay it in what is called the Italian style, or rafters about 1 ft. more or less apart, with a corrugation at each rafter only; or in a third manner, upon a general surface of boarding, in the manner of a lead flat, the necessary drips, ridges, etc., provided for in the construction, with the extra allowance for expansion and contraction which the peculiar nature of the metal requires.—*The Architect.*

Decay of Stone.

Dr. R. Angus Smith, of London, Eng., has observed that the particles of stone most liable to be in long contact with rain from town atmospheres, in England at least, were most subject to decay.

Believing the acid in the rain to be the cause, he supposed the endurance of a silicious stone might be measured by its resistance to acids. He proposed, therefore, to use stronger solutions, and thus to approach to the action of long periods of time. He tried a few specimens in this way, and with most promising results.

Pieces of stone of about one cubic inch in size were broken, by allowing a hammer to fall upon them, the number of blows required to produce fracture being counted. Similar pieces were steeped in dilute acid; both sulphuric and muriatic acid were tried, and the lattter preferred. The number of blows now necessary was counted. Some sandstones gave way at once, and crumbled into powder, some resisted long. One very dense silicious stone was but little effected. It had stood on a bridge (in a country place, however) unaltered for centuries.

These trials are merely the beginnings of a very extensive set of experiments about to be undertaken by Dr. Angus Smith, with a view to establish a standard of comparison.

Iron Ships.—Some shipbuilders predict the failure of iron in ships, which will cause a revival in trade in wooden ships, and assert that iron vessels are always ready to sink when the heads of the iron rivets become corroded. That their decadence, when commenced, will be rapid.

Science is studied by the observation of facts. But observation is not easy. It requires more memory and a further perspective than most men possess. Experiment, too, is necessary, which is a series of questions put to Nature, and no witness can be found more difficult to examine.

A Planet Between Mercury and the Sun.

It has for some time been suspected by astronomers that there was a small planet revolving about the sun, between that luminary and the orbit of Mercury, and with a period of revolution of about 20 days. This matter has been quite recently alluded to in *Nature*. In the *Scientific American* of Dec. 14th, Mr. J. R. Hind called especial attention to the subject and suggested that, on March 24th next, the sun's disk should be watched, as a conjunction of this hypothetical planet with the sun is expected to occur about 10 A. M. on that day.

In a subsequent number of the same paper, Mr. John H. Tice, an astronomer of St. Louis, Mo., writes as follows: In the latter half of September, 1859—I cannot now fix the exact date, though it may have been about the 20th—I saw the planet pass over the disk of the sun. I first saw it about 9 o'clock, my attention being called to it by some boys who were looking at the sun through a smoked glass. It was then on the eastern limb, and its apparent diameter was about 2¼ inches. It took it about two hours to pass over the sun. As it is impossible for any of the known interior planets to pass over the sun in the month of September, it must have been an unknown planet. I communicated this fact to the naval professors in 1869, requesting that search be made for this interior planet at the eclipse of that year, but nothing was ascertained.

New Theory of Cyclones.—An officer connected with the Spanish navy has published a new theory of cyclones, which is, at least, a very plausible one. He found his reasoning on the hypothesis that a zone of air, saturated with vapor and compressed by two opposite forces, requires a power of resistance peculiar to solid bodies, and may, therefore, be made to revolve like a disk. He applies this hypothesis to the typhoons of the Chinese Sea, and shows what is universally known, that there is a northeast trade wind and a southwest monsoon, and that between these two winds there exists in the Pacific a zone of calms which shifts its position in accordance with the prevailing wind—that is always on the side of the weaker one. Now, if these winds be oblique to each other and unequal, the zone will revolve, and, as it finds no obstacle to stop it, it will also be shifted more or less horizontally, which is the exact motion of cyclones.

Flour Without Millstones.—Another device for making flour without the use of millstones is being put to a practical trial in England. The grain is crushed by one thousand little trip hammers attached to the proper machinery to produce the result desired. The machinery is said to be very cheap, doing up its work in a most scientific manner, and flour produced is said to be far superior to that obtained by grinding. A pounding mill costing one thousaud dollars, will produce as much flour every day as an old-fashioned mill costing $5,000. The new mill is very simple. When a hammer is out of order you can replace the same with a few cents. For four thousand years millers have produced flour by grinding the grain with stones. What will be the result of the modern attempts to do without grinding stones remains to be seen.

Singing Flames.—M. Peaneth, says *Les Mondes*, has found that if a flame burning in the open air be approached to a vibratory tuning fork, the sound of the latter is considerably increased, as if it were placed in contact with the box of a stringed instrument. The sound acquires its greatest intensity when the flame is placed between the two branches of the fork. This phenomenon is believed to be analogous to the singing flame, only in such case it is the flame that excites the vibratory movement of the tube in order to place itself in similar synchronous vibrations; while, in the above mentioned instance, it is the fork that gives the tone and the flame takes up vibration in unison.

Steel Rails are still gaining in favor on first-class railroads. By the end of the present season the Chicago and Alton Railroad Company will have one-fourth of its road laid with steel, and it has contracted for enough to lay another quarter of the road by the end of the next season.

The Boston and Albany Railroad have also decided to substitute steel for iron rails upon the entire track of that road as fast as practicable. About 9,000 tons of steel rails have been purchased with this object in Europe, 4,000 tons of which will be delivered this year and 5,000 tons next year. They will be laid as fast as they are received.

Plant Phosphorescence.—The Rev. M. J. Berkley describes, in the *Gardeners' Chronicle*, a very remarkable instance of luminosity in fungi. It occured in the mycelium of an unknown species growing on a trunk of spruce or larch, and was so powerful as to make a perfect blaze of white light in the track where the trunk had been dragged, and vividly illuminating everything in contact with it. It gave almost light enough to read the time on the face of a watch, and continued for three days.

A Quadruple Railroad Track.—It is announced that the New York Central Railroad Company have decided to lay a new double track all the way between New York and Buffalo, making a quadruple track (of eight rails) between the two cities.

Farmers in Council.

Farmers' Club of Sacramento.

The Club met on Saturday, Jan. 11. In the absence of the President, H. M. La Rue was called to the chair.

The Carrying Trade.

Being called, Judge J. H. McKune delivered an extended and interesting address, but which is too lengthy for our columns.

James Rutter followed McKune in some well considered remarks.

J. R. Johnson said he had been entertained and instructed with the report of McKune's remarks a week ago, and by listening to those made to-day. It had come to the question among common carriers what freight can this or that article or class of goods bear, rather than what can we afford to carry this or that article or class of goods for?

Thus they make their calculations to take all that any particular product can possibly stand up under and not be absolutely crushed out of existence. Henry Clay was said to have been the father of the idea of national, interal improvements. He early saw the necessity of encouraging and improving a system of commerce between the States, and labored to bring about such a system, knowing that the development of the country would be accelerated by a cheap carrying trade.

Of late years we have to contend with Credit Mobiliers, which, with the subsidies received from the people, manage to subsidize the people's agents and servants, the members of Congress, and thus to obtain further subsidies and favors, and oppress and rob the people themselves while pretending to look after and maintain their rights. He referred to a system of international improvements adopted in Pennsylvania; that of the Government building canals and allowing private companies to run boats upon them upon the payment of certain rates of toll, and advocated the adoption of such a plan by the General Government with reference to the railroads. In this way the management or operating of the road would be in the hands of private companies, subject to such restrictions as the Government may see fit to impose upon them. The private companies would thus be subject to competition, and secure fair rates of charges, and these companies would be liable to all private parties for damages or neglect of duty.

It would almost seem now that the people who have subsidized these railoads, must, in order to bring the railroads to do them justice, turn about and subsidize their own representatives by paying them larger amounts than the railroads can pay them.

Greenlaw—We as farmers are not supposed to know much about operating railroads, but we do know what effects too high rates of fares have on the industry of the country. When we see species of any article we produce on our farms high, and the demand good, but find that we cannot transport that article to the market at the rates of freight charged by the railroad, we are discouraged in the continued production of such article, and the agricultural industry is thus cramped and the country retarded in its improvement and development.

There now seems to be an auspicious time for the country. There is an investigation now going on in Congress which promises to develop some very strange things, and now is the time for the people to stir themselves, to extend their encouragement and sympathy to the honest men who are engaged in this investigation; and to demand and obtain justice from the corporations. We are glad we have help to expose the wrongs we suffer.

J. S. Harbison had given the subject some consideration, but not with a view to express his thoughts till within a short time. We as farmers have a good work to do near at home—to see that we have good public roads. Last winter a few members of this club made efforts to get the Legislature to pass some wholesome laws to secure better roads into this city, but a few sharpers managed to secure the change of the public road leading down the Sacramento river into a private turnpike, and to allow the owners of the same to tax the producers of Yolo, Solano and other counties for traveling over it, to bring their produce to market. Thus for the benefit of a few individuals, the city loses the trade of a large section of agricultural country, the public are greatly inconvenienced—production discouraged. Thus, the people's rights are trifled with by our representatives. The subject of shipping wheat has been referred to and Friedlander's name used. Friedlander in this business is a mere miff.(?) It is really the old ring—a combination of inside operators who conspire against the people, and Friedlander is the open agent or operator of the machinery. The only way to remedy the evils we suffer is in combination of the industrial classes. Elect good and honest men to fill our political offices, to send to Congress and the State Legislature. We have a good man for President, and some noble men in Congress, who seem determined to do their duty, and it now becomes us to encourage and sustain them in their worthy efforts. The farmers and mechanics have only to unite to control the destinies of the State and nation. We can and must control the railroad system of the country and make it subservient to ours and the country's wants and interests. We must not look for immediate results, but if we unite and act wisely the results of such action are not far in the future. We must forget all old political distinctions and unite and act for our own interest and that of the whole country. We must force corporations to do right, and not by the gun or bludgeon, but with the ballot—to save the use of the former.

J. T. Day said he was a new member and would not be expected to say much, but he thought we should look more to the rising generation. The way to correct any great evil is to properly educate the young. We should see to it that the right principles are instilled into the minds of the rising generation. We are ourselves too much the worshippers of power and of people in place.

Mr. Johnson offered the following:

Resolved, That a committee of three be appointed by the Chair to draw up and submit to this club at its next meeting the form of a memorial or petition to Congress, asking them to pass an Act to condemn to public use all the private interests in the railroads which have been built in part by the aid of the Government funds.

The resolution, after some discussion was unanimously adopted, and the Chairman appointed on the committee J. R. Johnson, J. H. McKune and James Rutter.

The Secretary, I. N. Hoag, was also, on motion, added to the committee.

The carrying trade was continued for next week, and the club adjourned.

Sonoma County Farmers' Club.

Club met Saturday, January 4th, 1873, Vice-President Whittaker in the chair.

Mr. Coulter, on behalf of Committee on Corporating. reported that the Committee had met several times and had in part examined the subject, but were not prepared to report. The new codes going into effect on first of January, and the changes in the mode of incorporating, had introduced some new features into the discussion, upon which the Committee were unable to agree. The Committee were also divided on the question of the character of the corporation, i. e., whether it should be for profit, or merely beneficial, or social, whether it should have a capital stock or not. He therefore asked for further time to report.

Mr. Rector said: The Committee may appear to have been tardy, but the reasons for delay are many. One was that a Committee of the State Farmers' Union were to have met in San Francisco on the 3d inst., and we thought that they would take some action in reference to the incorporation of the State Union, or recommend a plan of action for county clubs, and that our report had better be deferred until we could hear from them.

The Committee granted further time.

Mr. Whittaker, from Committee on Hall, reported that the hall would not be ready for ten days for occupancy.

Mr. De Turk suggested that steps be taken to open the hall with an entertainment of some character.

A member proposed that a lecture be given and an admission fee charged, by that means we would obtain sufficient funds to furnish the hall.

Mr. Rector opposed charging admission fees. It looked humiliating to go to the public for support. We are able to carry on our own operations. If we are bound together to effect an object of pecuniary value to ourselves, let us pay our own way. To beg subscriptions or donations is an admission of weakness.

Mr. Maslin moved that a committee be appointed by the President with power to provide an entertainment of some character suitable to the occasion.

The President appointed Messrs. Thompson, Coulter and Rector on the Committee.

It was resolved that there should be no admission fee, and that the Club would pay its own way.

Sutter County Farmers' Club.

The Club met according to call, January 4th, 1873, Dr. Chandler in the chair. J. W. Moore was elected temporary Secretary. Remarks were made by Mr. Ohleyer and others, and a motion made that the office of Secretary be declared vacant, and a Secretary be elected at the next meeting. The motion was carried.

Mr. Ohleyer spoke of the propriety of organizing the Club, after the manner suggested by the State Union, and building a warehouse somewhere on the line of the railroad for the storage of grain, none but farmers and members of the Club to have stock in it.

Mr. Chandler then offered a resolution as follows:

Resolved, That this Club proceed to incorporate under the general incorporation law of the State of California, in order that it may proceed to acquire and hold real estate and perform such other acts as the Club may deem proper.

The resolution was adopted as the question of discussion at the next meeting. Discussion was also had as to which is the best variety of trees to plant for fruit, shade and fuel, which question will also be discussed at the next meeting, the late hour at which the Club met necessitating an adjournment before a full discussion was had. Meeting adjourned for two weeks, until Saturday, January 18th, at two o'clock P. M.

Oakland Farming, Horticultural and Industrial Club.

Friday evening, Jan. 10th, Dr. E. S. Carr, President, in the Chair.

A communication from Mr. I. N. Hoag to Mrs. Carr, complimenting the Club on its action in favor of street shade-tree planting, and also recommending the mulberry tree, was read.

The annual report of the Secretary was read and ordered on file. It contained a list of 46 members. Mrs. J. P. Moore and Mr. A. Holmes were elected to regular membership, and Mr. W. Halley, of the Brooklyn *Home Journal*, to honorary membership. The Club now has seven lady and forty-two gentlemen members.

The association has been organized six months, and President Carr, who has probably visited more farmers' clubs in this State than any other person, spoke encouragingly of its progress, of the regular attendance of its organizers and of many new members. The good they have already accomplished by exchanging ideas at home, and, through the auxiliary of the press, disseminating information abroad, has been worthy of the time given to the meetings—while the prospects for greater influence in the future, for our own and other clubs in the State, are certainly very gratifying. The announcement of

Mr. J. Ross Browne's Lecture,

On the agricultural interests of the State, drew an unusual number of visitors to the meeting. He gave many carefully gathered facts, and enlivened his lecture in a conversational way with interesting personal incidents. We hope to give his address in full in a future issue. A resolution of thanks was passed "for his exceedingly interesting lecture—and especially for plain and truthful sentiments favoring legitimate agricultural and industrial enterprises."

Being the evening for annual election the President appointed Mr. John E. Bentou, teller. The following officers were unanimously chosen: Prest., Dr. E. S. Carr; Vice-Prest's., J. V. Webster, Dr. W. P. Gibbons, and Christian Bagge; Sec'y., A. T. Dewey; Treas., Chas. H. Dwinelle; Librarian, Miss Jennie C. Carr.

On motion of Mr. C. Bagge, the Chair appointed a committee to memorialize the City Council to designate some suitable place in the city for a market place for produce raisers to congregate and dispose of their produce as often as twice a week. Messrs. Bagge, Webster and Dwinelle were appointed.

Adjourned to Friday evening, Jan. 24th.

Yolo County Farmers' Club.

There was a little better attendance at the meeting of the Club on Saturday last than at the previous meeting, but not so many by half as there ought to have been, when the objects of the Club are known—to protect farmers by combination from such outrages as were practiced upon them the past season in keeping down the price of wheat; for interchange of views, and general improvement. With such objects, it does seem as though Yolo, which is one of the very foremost wheat growing counties in the State, ought to have a Farmers' Club of at least a hundred members. The prospect now is that our county will have at least as much wheat to sell this year as last. It is none too soon now to be forming plans for protection, and to be casting about for the best means of disposing of the coming crop. By the first of March the crop will all be in the ground and it will be known what the acreage is, with a pretty good chance to figure on the yield. After that time farmers will have more leisure, and they will surely, for their own interest take an active part in the Club. By acting jointly they can control the markets, instead of being obliged to take just what middlemen see fit to offer, regardless of the real worth in the consuming markets of the world. There are a great many more things farmers may do to improve their own condition and prospects, which we have not now time or room to refer to, but which will come up in due time. The next meeting of the Club will be on Saturday next, Jan. 18th.

How to Enjoy Life.—It is wonderful to what an extent people believe happiness depends on not being obliged to labor. Honest, hearty, contented labor is the only source of happiness, as well as the only guarantee of life. The gloom of misanthropy is not only a great destroyer of happiness we might have, but it tends to destroy life itself. Idleness and luxury produce premature decay much faster than many trades regarded as the most exhaustive and fatal to longevity. Labor in general, instead of shortening the term of life, actually increases it. It is the lack of occupation that destroys so many of the wealthy, who, having nothing to do, play the part of drones, and like them make a speedy exit, while the busy bee fills out its day of usefulness and honor.

The Evolution Theory.

In all that has been said in favor of the Darwinian doctrine of evolution it is claimed that no one has yet been bold enough to assail the position that "there is a distinction in kind between the mental faculties of man and those of the brute; and that in consequence of this distinction in kind, no gradual progress from the mental faculties of the one to those of the other can have taken place." James More, M. D., furnishes the *London Lancet* for July 27, 1872, with a paper upon this special point from which we condense as follows:

This specific distinction is nowhere more apparent than in the *feelings* and *emotions*. A very slight observation is sufficient to convince us that, though there is a close similarity, or even identity, in what may he called the physical or corporal feelings of man and the brute, still man stands alone in the possession of purely intellectual and moral emotions. It is in virtue of his animal or corporal organization that man possesses, like the brute, these grosser feelings; but it is in virtue of his *self consciousness* that he possesses feelings and emotions which, in their expression, control the intelligence, guide the will and are in strict harmony with his religious nature.

We cannot but admit that the lower animals have feelings and emotions of a complex kind, which, besides entering largely into their mental life, produce much the same effect upon their bodily organization as the same feelings and emotions do on man. Terror acts in the same manner on them as on us, causing the muscles to tremble, the heart to palpitate, etc. They have suspicion, courage, fear, affection and other allied emotions; but on analyzing these feelings, we are bound to admit that they are, for the most part, of physical origin—in fact, that they are simply modes of *instinctive* consciousness.

When man is the subject of any kind of feeling he looks inwardly, into his own being, and not outwardly. Our emotions are purely *subjective*. On the other hand, the emotions of the lower animals are deficient in the subjective element. Like their higher instinctive and probably also their intellectual acts, their emotions are merely acts of *objective* consciousness Their feelings are always related to some *object*, and can come into play *only* in the actual *presence* of that object. Their emotions have never any reference to any general notion or abstract idea, but merely to external objects of the senses.

This distinction—that of *subjective* in man and *objective* in the brute—our author holds to be a specific and important one, and places man in a position far above that of the brute—a position, which could not have been arrived at by the latter through millions of ages of evolutionism.

In the brute, the appetites, feelings, or emotions being under the influence and guidance of instinct, must be obeyed, and they are often obeyed contrary to the conditions under which they ought to be manifested. *This is what is sometimes called blind instinct;* it is simply the manifestation of any feeling or emotion apart from conscious intelligence.

An instance in point is given of a dog, which while suffering under the knife of his master, used for scientific purposes, licked the hand that gave him pain—thus showing a feeling of love apart from intelligence.

The brute is incapable of being actuated by mixed feelings or motives, one idea being always dominant and guiding their conduct.

In recapitulation our author finally says:—"We find that the feelings and emotions of man give him quite a distinctive character, and seem to exclude him from the scale of mere animal being.

1. The emotions in man are *subjective*, in the brute they are purely *objective* acts.

2. Man has intellectual, moral and corporal emotions, which may hold simple or complex relations, according as they are conditioned by consciousness or self-consciousness.

3. The brute has corporal emotions, which may hold simple or complex relations, according as they are conditioned by instinct or intelligence.

4. Man possesses emotions which have reference to his æsthetic or religious nature.

5. The feelings and the emotions of the brute, like the purely corporal emotions in man, have reference only to the preservation of the individual and continuation of the species.

6. The higher emotions of man hold very complex relations to the element of time, and place him in harmony with the *past*, *present* and *future*.

7. The emotions of the brute have reference only to the *present*.

8. The emotions of man are in strict harmony with his moral will. The emotions of the brute are in accord only with volition.

9. Certain emotions in man and animals become, under certain circumstances, dominant in the mind, conquering and replacing all other emotions and feelings.

10. Man can control or prevent his domination of feelings; the brute cannot.

11. The emotion or feeling of wonder is one of the most important in man, and, from its special relations to time and space, forms one of the most distinctive features in his mind. In the brute this feeling has no definite relation to time or space.

Fire-proof Mansard roofs are among the timely specialties of the Union Foundry Works of Chicago.

Agricultural Notes.

ALAMEDA.

Transcript, Jau. 9: Grain Shipments.—The sixty-ninth ship laden with wheat from this port for Liverpool will haul into the stream to-morrow or day following. She is named the Royal Sovereign, and was built on the Clyde—is an iron vessel, and has visited this harbor before. She is of 1,388 tons register, and will carry hence 1,850 tons of wheat. A gentleman thoroughly conversant with the situation, informs us that the great grain monarch of the State, I. Friedlander of San Francisco, has shipped on his own account from Oakland alone, seventy thousand tons of wheat since the first of July, 1872. The wheat arrivals at the wharf still keep up to the old standard.

New Manufacturing Establishment.—There is being finished aud furnished with the necessary implements and machinery, on the corner of Tenth and Franklin street, one of the most extensive manufacturing establishments in Oakland. It is the Wagon and Carriage manufactory of Mr. Hammond. The ground occupied by the buildings is 75x75 feet. The main building is 40x75, and two stories in hight. The lower floor will be devoted to wagon making and repairing, and the upper story for finishing and painting. The establishment will compete with any in the State for character of work and prices.

AMADOR.

Dispatch, Dec. 28: We were shown some very nice large oranges a few dayg ago, which were raised on the ranch of Mr. Hubbell Loveridge, near Butte City, about three miles from Jackson. We were also shown a lot of small ones, about the size of a hen's egg, but full grown and ripe, which were raised on the ranch of Mrs. Pitois, a short distauce above town.

CONTRA COSTA.

Gazette, Jan. 4: The Ramie.—George D. Roberts, who has already experimented with the ramie plant upon tule lands, has provided for setting out 250,000 roots this season, ou Twitchell Island, and is confident of success. The plant will afford two crops a season under proper conditious of soil aud culture, and a machine has been perfected in San Francisco for separating the fiber, which is worth from $300 to $400 per ton, when properly prepared.

Narrow-Gauge Project.—The project of a narow-gauge railroad from deep water at Martinez to the Amador valley, is engaging the attention of parties able to furnish a considerable portion of the capital for the enterprise if the stock can be taken and held so that the control and management of the road will rest and remain in the land owners and residents of the district through which it is proposed to build the road. The construction and equipment of thirty miles of road on the proposed line would not exceed $320,000, aud it would undoubtedly pay a good interest on its cost at moderate charges for business, besides tending to promote improvement and enhauce the value of property. We would commend this enterprise to the consideration of the people of the central portion of this county and the Amador Valley, in entire confideuce that the road can be built without any straiuing of means by their united efforts.

FRESNO.

Expositor, Jan. 1: Rapid Vegetation.—On Sunday the 22d ult., the ground was entirely destitute of growing vegetation, the roads were dusty, and everything looked as uninviting as it possibly could. About nine o'clock P. M., on that day the rain began falling and on Thursday following the rain still continuing, the ground was green with growing grass and weeds, and to-day, ten days after the first rain fell, the growing grasses have attained a hight of more than an inch. We do not think any place in the world outside of California, can equal this spontaneous growth, and no place in its borders can excel this.

Jan. 8: Farming.—Farming is going ahead with great activity at this time in this county. Every available horse and man is being put to the plow, harrow, and cultivator. Mr. Gould, near Fresno has several four-horse gang plows in operation, breaking up his lands, and a large number of grape vines, fruit trees, etc., have arrived on the ground for planting. This gentleman has built him a neat and comfortable residence, put up a large and substantial baru, and outhouses. He will cultivate several hundred acres of land. Mr. A. Weighe is plowing up his land. He will cultivate about 1,000 acres. Mr. Voorman, we understand will plant about as much more. The Easterby farm is being prepared, and we learn that a large amount of new land will be seeded this year. Numbers of other parties are planting from one hundred and sixty to one thousand acres of land. Most of this land will be put to wheat, but a large quantity of cotton, barley, oats, and the like will be planted. All those who can irrigate will wait till they harvest their grain crops before planting corn. The prospects for the farmers are good, and this makes everybody else feel cheerful.

A tomato vine, with fruit in all stages of growth, from the flower to the ripening tomato, may be seen growing in the open air, in the rear of Lawreuson's Saloon. This has been the coldest winter known in this county, and yet the frosts have not been sufficiently heavy to injure the plant.

Narrow-Gauge Railroad Meetings.—Mr. A. J. Atwell and A. W. Roysdon, have been visiting the different localities, in this county, soliciting subscriptions to the stock of the proposed narrow-gauge railroad through the San Joaquin Valley. They report quite flattering success, particularly in the towns of Kingston and Centerville, aomething over 200 shares having already been taken in this county.

INYO.

Independent, Jan. 4: A Home Industry.—We are pleased to note the existence, or recent adoption rather, of a new industry, which to a considerable extent will retaiu at home money that has hitherto gone to San Francisco. This is the article of salt, which comes from the Rhodes marsh, a few miles north of Columbus, from which point all requisite quantities can be brought as back loads by Bishop Creek teams seeking at that town a market for farm produce. The salt is of a very superior quality, and can be furnished here at a less cost than the imported article. The distance over which it is hauled to this poiut is about 145 miles. Mr. W. G. Murkley, at Bishop Creek, keeps quantities of it ou haud for sale.

KERN.

Southern Californian, Jan. 9: The weather for the week has been all that the most chronic weather grumbler could desire; cloudy and warm, with no frost at night. And in consequence the grass is springing at a marvelous rate. The plains and foothills are already covered with a fine growth of alfileria, affording abundant and delicious feed for stock.

MONTEREY.

Democrat, Jan. 11: Plowing.—In this valley during the week every available plow and plow-horse have been put into requisition. The ground is reported in fine condition, almost universally.

One of the gas wells was opened Tuesday night for the gratification of some strangers in town. The jet was not very strong, the pipe being apparently in a great measure choked by sand and gravel, but the flame seemed as pure and brilliant as at first.

Cotton.—The experiments of Col. Strong and others have demonstrated that in the San Joaquin Valley, cotton may be grown successfully. Though a summer crop, irrigation, we are told, is not necessary to it; on the coutrary, that the experimenters in question allege that wherever a fair stand of wheat can be obtained there also cotton will grow. It is added that our coast country is not unsuited to the plant. We hear that parties are proposing to experiment with it in our valleys this year.

NAPA.

Reporter, Jan. 11: Beet Sugarie.—We have often urged the subject of a beet sugarie to the attention of our capitalists. That such an institution in Napa, where the soil seems specially adapted to the raisiug of the beet, and where shipping facilities and cheap rents offer superior advantages, would be eminently successful as an investmeut, the results of the sugaries already established in the State place beyond a doubt. The Sacramento Valley Sugarie will enlarge their sphere of operations the present year, and in addition to their lands at Brighton formerly cultivated, will plant about 400 acres near Davisville in beets.

Register, Jan. 4: Judge Stauley, who inherits a vast property from Hon. Edward Stauley, lately deceased, includiug the Rancho de los Carneros, is preparing to establish one of the greatest dairy ranches on this coast. The necessary buildings are now in course of erection, and already make a feature in the landscape opposite Suscol. The Judge has made extensive preparations for watering the uplands of his estate. The lower portions, including the tule lands, have sufficient moisture in themselves to yield at all seasons abundant nutrition aud succuleut food to vast herds of cattle. The enterprise is on a large scale and promises profitable results.

NEVADA.

Republican Jan. 4: White Fish for the Truckee River.—Spencer F. Baird, the United States Fish Commissioner, has notified the Fish Commissioner of this State that he has appropriated 50,000 eggs of the white fish of the Western lakes for California These eggs will soon be forwarded from the East and hatched at Comee Bros.'s fishery on the Truckee river. After the eggs are hatched and the fish of sufficient size they will be placed in Tahoe and Donner lake and also in the Truckee river.

PLACER.

Herald, Jan. 11: Alfalfa.—That this in the end is to be the chief cultivated grass of California, seems to admit of little doubt; but whether it can be made to take root and thrive and grow perennially on the dry aud rocky ridges of the foot-hills and uplands of this section of the State, is the all-important question for the people of this county. We tried it last season ou about as rocky a ridge and as poor soil as can be found. That which we irrigated a little is alive and now coming out nice and green. In spots that had no water at all it seemed dead in the fall, but now some of this even proves to be alive and is sending forth green leaves. Judge Fitch also experimented with it last soason, and feels confident that if properly seeded it will take hold and live on our hills without irrigation, yielding some two crops in a season, or be of equal value for pasturage. If the roots can once penetrate moisture in the dryest time of the first year it must be ever after safe, and sure to yield double or treble the provender of the natural grasses. We think these experiments would justify our farmers and stock men in trying it in a small way the coming season, and it will be time to put in the seed in about three weeks.

SACRAMENTO.

Folsom *Telegraph*, Jan. 11: At Work.—The farmers are all at work turning over the mellow soil in the vallys and on the hillsides. The grain looks better in the hills, and the grass already is furnishing good feed.

While the plains and valleys have been enveloped in fog and drizzle of late, the hill country in El Dorado, has been enjoying delightful sunshiue and warm weather.

Improving.—The Natoma Water & Mining Company are running several gang plows on their land at Alder Creek, and are also doing considerable work at the granite quarries, and on the canal designed for manufacturing purposes. The railroad leading from Folsom to the quarries has been placed in fine running order. Cobbles are again in active demand in San Francisco, where wood pavements have fallen iuto disrepute.

A Mammoth Hog.—On Tuesday last, a hog which measured six feet three inches, and weighed one hundred and eighty pounds dressed, and ouly seven months old, from Howard's ranch, was shipped on the S. V. train, to Alfred Spinks, of Sacramento. It was the smallest of the litter which numbered seven.

SANTA BARBARA.

Press, Dec. 28: Make Gardens.—New comers should be informed that all the hardier vegetables, such as peas, onions, cabbages, turnips, beets, radishes, potatoes, etc., should be planted at once, to a limited extent at least, as they will grow well and soon be ready for use. The market should be supplied with new potatoes grown upon the warm dry ground, by the first day of March. Some kinds will mature in 60 days in favorable localities, on a warm sunny slope, for example. Select a sheltered, warm place and put in your seeds without delay. There is no excuse for any lack of fresh vegetables in our markets. Gardeners neglected their own interests when they fail to be prompt in planting a full assortment of the hardier vegetable seeds, and the public is compelled to wait needless months for a supply of fresh vegetables.

SANTA CLARA.

Mercury, Jan. 9: Competition.—The farmers and fruit growers of the valley held a meeting at the Farmers' Club room Saturday and perfected a contract with Capt. Nelson, the owner of the steamers which plied between San Francisco and Alviso last summer. By the new arrangements the boats will run regular trips according to the former schedule, and will carry fruit and freight at the old prices. Passengers will be charged, from San José to San Francisco, $1.00, or with berth $1.50; from San Francisco to San Jose or Santa Clara $1.00, including everything. Due notice will be given of time of commencement of trips.

Fruit Drying.—We have hardly begun yet to improve the almost inexhaustible opportunities which the rich soil and mild climate of this valley offer in the way of fruit culture. While our fruit-growers have long since reached the limit of the demand for green fruits, except in pear culture, which the overland railroad has given a new impetus to; we have made but a bare commencement in the matter of dried fruits, for which, when properly prepared, the demand is unlimited. This is a branch of industry that cannot be overdone. The superiority of our fruits would give us precedence over those of any other section of country. We would command the markets of the world.

There are thousands of acres of land in and arouud San Jose that would produce in perfection every variety of fruit common to a temperate or semi-tropical climate. The prune and the apricot especially thrive as in no other part of the world. We need but to utilize this fact to develop a mine of wealth worth more than our richest auriferous leads.

Many of our readers have seen the samples of dried prunes exhibited at our fairs by Mr. Ballou of this township. They far surpass any thing of the kind to be found in the markets, or that can possibly be produced elsewhere. Once it is known to commerce that this valley can furnish such fruits in quantities, we shall not be troubled for buyers; orders would come in upon us from all parts of the world.

Advocate, Jan. 11: Our Tobacco Interests.—We have on several occasions called attention to the operations of our neighbor, J. D. Culp, in raising and manufacturing tobacco, and also of the patent secured by him from Congress last winter for a mode of curing Havana and other qualities of tobacco, hitherto unknown in the United States, that imparts all the smoothness and flavor possessed by the best imported Havana tobacco. That the new process is a success there is no longer a question. A ride to his plantation, at San Felipé, and a smoke from a cigar made in your own presence, out of any of the immeuse piles of cured tobacco of this year's raising, will convince the most skeptical. The American Tobacco Company, organized last spring, for the purpose of raising and manufacturing tobacco and cigars under Mr. Culp's patented process, has so gained the confidence of the San Fraucisco tobacconists that they eagerly sought and purchased all the stock that they could obtain at $100 per share.

SANTA CRUZ.

Sentinel, Jan. 11: Whale Ashore.—We learn that there is a dead whale ou the Soquel beach, stranded during the recent storm. "The leviathan speaks for himself, in a perfume that is ueither savory or refreshing," says our informant, "for miles furninst you."

Plenty of Grass.—The refreshing rains and recent warm weather has started the grass finely. The distant hills are clad in Emerald Green, and almond trees are, January 8th, 1873, in full bloom.

SAN BERNARDINO.

Argus, Jan. 2: Riverside Colony.—As letters of inquiry have become too numerous to answer separately, we are obliged to resort to a circular letter, which will be found to contain the information usually sought by correspondents.

In the first place, we refer all inquirers to our circular of June, 1871, which will be found to contain answers to many of the questions still asked by those who have that circular. Since that date we have fully realized all that we hoped for then, and have demonstrated, by actual test, the adaptation of our soil and climate to the purposes of our enterprise.

Soil.—Our soil is a deep, rich loam, known in California as the "red bench land," and is the best in the State for the growth of the semi-tropical fruits and vines, and is also well adapted to the cultivation of all common fruits, grains and vegetables.

Water.—Our water ditches are abundant for all present demands, and can be easily increased as occasion shall require. The supply is unquestionably the largest, and most reliable in Southern California. In the cultivation of semi-tropical fruits, this is au advantage that can not be over estimated.

Climate.—The climate of Riverside is all that we had hoped. As to healthfulness, it is unsurpassed in the United States. It is free from bilious disease, and for asthma, bronchial affection, and lung disease it is infinitely better than that of any locality near the coast. The weather is so mild and uniform that the banana grows luxuriantly; and the orange, lemon and lime flourish much better than at Los Angeles, or any locality along the coast. We have orange trees five feet high, lemon trees eight feet high, and limes more than four feet high—all from the seed and less than one year aud a half old. Banana plants, from the bulb, have grown more than ten feet since the middle of February last, and now have stalks thirty inches in circumference. Other trees grow with equal rapidity. We have peach, pepper, Australian Blue Gum and Acacias, each more than eight feet high, from the seed in one season. Flowers of every variety grow with great facility. Most of the green-house plants of the East flourish in the open air here. Our coldest weather freezes ice of less than a quarter of an inch in thickness. Our tomatoes were green and the fruit was ripening last winter until the 26th of January. We have very little need for fuel, except for cooking and washing.

SAN JOAQUIN.

Argus, Jan. 4: Cotton Culture.—The generous rains of the present week; by ensuring large crops of grain upon the uplands, will have a tendency to encourage the culture of cotton upon our bottom lands. We are informed that a large amount of land upon the farm of H. F. Buckley & Bro. has been let to tenants at $10 per acre for the next crop season, to be planted in cotton. The crops of the past two years, though looked upon as mere experiments, have proved so remunerative to those eugaged in the business that many who have suitable locations will turn their attention to the production of the staple instead of corn and wheat. We look upon this as a most favorable change in the pursuits of our farming population, destined in coming years to cause our country to become densely populated and exceedingly wealthy, as the growth of cotton ensures employment in the fields to a large number of working men throughout the year. Seed, of a good quality, can now be obtained here at greatly reduced prices, and the coming season thousands of acres of our rich bottom lands will be planted in cotton, instead of hundreds as heretofore.

Independent, Jan. 11: Farming Implements.—Enormous quantities of farming implements are being sent forward daily by railroad to the upper part of San Joaquin valley. Farmers are pushing their work with all possible expedition, and the area sown in wheat will be far in excess of the breadth in crop last year.

SONOMA.

Democrat Jan. 11: The weather has been uncommonly favorable for the growing grain and grass. The nights have been warm and vegetatiou protected from frost by dense fogs which have succeeded regularly each night since New Years. There is now ample grass for stock running out. If this continues the season will be uncommonly forward and favorable. It is now evident the area of wheat seeded in this county will be larger than ever before.

Letter from Bodega.—The farmers have been busily engaged in putting in their small grain until the late rains; and had the cold freezing weather held on a little longer without any rain, the cattle would have died by hundreds; but the rains came in time to start vegetation, and the cows will do very well.

The early-sown grain looks very well and promises an abundant harvest. The roads in these parts are in good condition.

SUTTER.

Banner, Jan. 11: Extensive Plowing.—A passenger on the train from Chico Tuesday, says the *Appeal*, informed us that in passing the extensive ranch of Gen. Bidwell, sixteen gang-plows were seen in operatiou. Some of these plows were drawn by four and others by six horses. The field had the appearance of some large contractor on public works.

No Horses.—The wedding procession of John Alden and Priscilla, with some modifications, was acted over again in New Bedford, Mass., by a bridal pair, who were carried from a hotel to the railroad depot in a hack drawn by oxen, with white ribbons on their horns.

Home and Farm.

California Agriculture.

Gradually our farmers have been learning tho art of cultivation in a new country, which is under the influence of new laws, at least new to farmers and others who came here from the farms of the East. At first, less than a quarter of a century ago, there were with us men who had boen cultivators of the soil in New England and the Atlantic States, as well as in Europe, who, traveling through California, in the long summer time, when the soil was parched and baked into clods and lumps, as hard as dried adobes, or bricks, could not believe that crops could ever be made here. They considered that the people here would always be dependent upon crops raised elsewhere, and the ships that should bring the grain or flour hither. But trials, disappointments, and interspersed successes, have at length told a different story. At last many of our farmers have puzzled ont the philosophy of cultivation. They have too often waited and had to wait too long for the rains, before they could, as they thought, put their seeds in the ground. And often, when the rains did come, they came so abnndantly that the ground was tnrned iuto mud too soft for plowing or planting.

But some have been wise enough and bold enough to strike out from this waiting for the rains. As a resnlt, when our first rain fell the past antumn, thousanda of acres had already not only been plowed but dry sown, and the seed was all ready for the quickening inflnences. And between the first considerable rain and the present storm, wherever the rain had fallen in sufficient quantity to soften the ground that had been too obstinate for the plow previously, farmers have generally made the most of the opportunity, and the result is that iu some sections of the State there are more acres sown than has ever been the case before. It is reasonable to conclude that with a favorable condition of the elements between this and May next, of which the season thus far gives a fair promise, the crop of this year will be greater than that of last year. Of course we consider that unexpected conditions may arise to disappoint this calculation. But the chances at the present writing are in favor of an immense crop of wheat for the coming season.—*Alta.*

Live and Dead Weight of Animals.—The amount of meat obtained from a domestic animal sold by its live weight is very variable, and experiments have recently been made in Liverpool to ascertain the proper allowanccs to be made. From the statistics to be derived from the public slanghter-houses, of Paris or Brusaels, it appears that the race aud condition of the animal, besides many other ciroumstances affect the result, and that certain animals yield as much as 70 per cent. of meat, while others only give 50 per cent. The mean weight of meat produced, however, is calculated at 58 per cent. of the live weight in beef cattle. In the case of sheep, the proportion is from 40 to 50 per cent. From experiments made, it appears that the different products obtained from oxen and sheep are as follows:—An ox of the live weight of 1,322 pounds yields, meat, 771.4 ponnds, skin, 110.2; grease, 88; blood, 55.1; feet and hoofs, 22; head, 11; tongue, 6.60; lnngs and heart, 15.33; liver and spleen, 20.5; intestines, 66.15; loss and evaporation, 154 322—making the total of 1,322 pounds. The produots from a sheep weighing 110.02 ponnds are as follows: Meat, 55.1 pounda; skin, 7.714; grease, 55.1; blood, 4.408; feet and hoofs, 2.204; head, 4.408; tongue, lungs, heart, liver and apleen, 4.408 intestinea, 6.612; losa and evaporation, 19,836—making the total of 110.2 pounda

Sixty Successive Grass Crops.—A writer in the *Country Gentlemen* relates the following:—Not far from Hartford is the farm of Truman Harris, Eaq., where I was ahown a meadow of aome four acres, which had yielded a heavy crop of hay for over sixty successive years, never having been plowed during that time. It has occasionally been lightly manured, but owes its succeas almost entirely to an annual irrigation. The soil waa originally a aort of gravel bed deposited by two streams flowing through the enclosure, but by means of a dam across one of them, built before the war of 1812, it has been irrigated each spring, and uever fails of a good crop of hay. Mr. Harris waa born on the farm and is personally knowing to what haa happened there during fifty years, and has no doubt from the evidenoe of older friends that the irrigation of this meadow dates back to 1812 or earlier.

Weight of Roots per Acre.—Experiments in Germany, it is claimed, have determined the weight of roots per acre in several of the farm crops. Ordinary atubble with the roots in the first ten inches of soil were separated from the earth and dried. The pounds of red clover foots per acre were 6,580; rye, 3,500; wheat, 3,400 pounds This, of course remains in the soil as a fertilizer.

In Siberia, during the winter, milk is said to be bought and sold iu a frozen state, and can be carried for a long period in a simple bag. When required for use, the requisite quantity ia chopped off with a hatchet or sheath knife, and thawed aa needed.

The American Bottle Filler.

Among the articles brought into requisition on this coast by the necessities of onr large and increasing wine interest, are bottle fillers, designed to do away with the slow and tedious process of filling bottles by hand, where large numbers have to be filled. The latest improvement in this useful machine is that of Messrs. Armstrong & Marks, which was psteuted through this agency, and a sketch of which is shown in the accompanying cut. The inventors of this machine claim that one man can do as much work with it as three can without it. In fact, it is only a question of how fast a man or boy can handle the bottles, as it will fill bottles faster than the full ones can be removed and empty ones replaced.

A, represents the tank or reservoir in which the liqnid to be bottled is contained. One or more siphons, *D*, *D*, are secured at their middles to the edges or sides of the tank by means of arms or trunnions, so that one leg will pass down inside of the tank while the other hangs outside. A cap, *E*, fits over the inside eud of the siphon, (Fig. 2,) to the uppcr end of which a spiral spring, *d*, is secured. This spring coils around the tube upward, and is secured to it at some point between the cap and bend of the siphon. The cap, *E*, has an opening at one side, as shown, a short distance above the end of the tube through which the liquid passes

Fig. 1

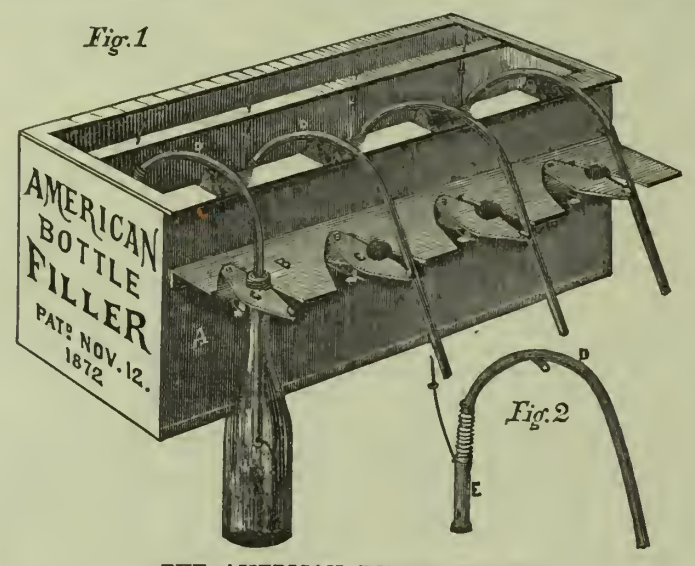


Fig. 2

THE AMERICAN BOTTLE FILLER.

when the cap is in position. It will be seen that the spring will draw the cap upwards so that its closed end will be against the open end of the tube ; but when the cap is forced downward the open end of the tube comes opposite the opening on the side of the cap, c, and the liquid enters the siphon.

In order to operate this cap, a rod, which has its lower end secured to the cap, extends upwards to a sufficient distance to strike the underside of a bar which passes across the tank, *A*, just back of the siphons. Now when the leg of the siphon, *D*, which ia outside of the box, *A*, ia forced toward the box, the leg inside of the box is raised so as to cause the rod to open the inner end of the siphon ; and when it is again freed, the force of the spring will again throw the siphon to its former position and close the inner end.

In order o cause the siphon to retain ita charge when not in use, the ontside extremity of the outer leg is closed and an opening made in the aide of the pipe just above the closed end. Thia opening is not as large as the hole through the aiphon tube. This the inventors have discovered will cause the siphon to hold its charge until the inner end is opcned and the liquid allowed to flow through it, thus rendering the aiphon automatic and perfectly under control. Secured horizontally to the tank, *A*, is an outward projecting flange, *B*, in which a recess is made opposite each siphon. A latch, *C*, is hinged to this flange and a spring draws it arma the opening in the manner shown. To fill the bottles the outer leg of the siphon is introduced into them nntil the bead around the upper end of the bottle rises above the flange, *B*. The bottle and outer leg of the siphon are forced towards the tank until the neck of the bottle enters the recess in the flange, *B*; the latch c then embracea the outside of the neck below the bead and holds it in position.

This aame movement lowers the cap in the oppoaite or inside leg of the siphon and allows the liquid to run through until the bottle is filled. By keeping the liquid in the tank at the proper level the bottles will not overflow and the work of filling can be accomplished without waste. The bottlea being held by the neck in a similar position would be all filled. The removal of the bottle from the latch causes the valve at the rear end of the siphon to close and stops the flow; while the removal of the bottle from the siphon causes displacement enough to admit of corking without bursting the bottles. The siphons when once charged will retain the liquid an indefinite leugth of time.

To use the machine the apparatus is placed in front of the hogshead containing the liquid, so that the faucet will project over the top of the tank *A*, or it can be connected by hose if more convenient. When the tank is filled to a level with the latches in front, the siphons are pressed into the latches c, and by the nsual manner fill the siphons and release them from the latch. The attendant then places himself in front of the apparatus, with the empty bottles at his left hand and space for full ones on his right. A bottle is placed on the end of the first siphon and it is pressed into the latch, the others in proper order. By the time the last bottle is in the first is full; this is removed with one hand aud a new bottle placed in its stead, and so on. By this means a large number of bottles can be filled in a short time with little labor. The inventors claim that any one can, after a little practice, fill 75 dozen bottles per hour with this machine. Parties desiring further information can address James Armstrong, No. 240, 6th street, or Samuel Marks, corner Folsom and Fourteenth streets, in this city.

Mad Itch in Cattle.

Ens. Press:—Through the columns of your wide spread journal I wish to make inquiries regarding a disease which haa recently made its appearance here on the ranch, and by which we have lost several head of cattle.

Symptoms.

Commence by shaking of the head, scratching of same and violently rubbing or beating it against anything with which it may come in contact; after four or five hours the animal commences swelling about the throat and neck, and dies within twelve or fifteen hours. The stock which has been so attacked are dairy cows, and have been running on corn stubble, the atalka having been cut down and left lying on the ground. Previona to having been turned on the corn atubble, have been running on wheat stubble and fed a good deal of pumpkins.

Should any of your readers be acquainted with the disease, cause, and a remedy, ahould be glad to hear from them through your columns. W. H. Southee.

Rancho San Felipe, Jan. 8th, 1873.

We have heard of several instanoea of the aame diaease in other parts of the State, and in every case it aeems to have made its appearance where hoga had been allowed to run in the same field at the time or just previous to that of the cattle. There are aeveral well authenticated instancea that go to prove that where cattle and hogs are fed upon pumpkins in the same field or feeding ground, the disease haa immediately followed. We know of no remedy for the disease, and no preventive but to keep hogs entirely away from cattle feeding grounds. We refer the writer to page 155, last volume Rural Press.

Sowing Clean Seed Wheat.—A correspondent of the *Cincinnatti Gazette* makes the following statement:

Many years ago, an English colony was left upon a lone island in the Pacific. With other aeeds they had some wheat which happened to be entirely clear of all foul seed. For thirteen years the colonists grew wheat from this stock, without a specimen of chess. After this there was sent them a new supply of foreign seed wheat, which happened to be foul. Result! Now they grow cheat or chess, all over the island. This one fact of itself, well authenticated, ought to knock the bottom out of transmutation for all time.

Practical Poultry Growing.

Eds. Pacific Rural Press:—So few farmers pay sufficient attention to their poultry, know anything of the diseases from which they suffer or have any idea of the profit to be derived from breeding fowls, that it has occurred to me to write a few articles in the farmers' paper to reach those who never read poultry books, and which may, perhaps, give information to many already iuterested in reading poultry.

In this warm climate or rather in a conntry where we have no rain in summer, the great difficulty to contend with in rearing chickens is lice. I have been told again and again that it is useless to set eggs in summer; no one ever succeeds in raising a brood. But I do succeed and find it far less trouble than in winter; but I lost many, nearly all my chicks, until I found the cause and remedy. I noticed them standing with a bedraggled sleepy look; I found them dead one after another. The canse was lice; the head literally covered with lice. I tried as I thought everything. No wonder farmers do not try to raise young chickens in dry weather. Then eggs are cheapest aud it pays far better to set them and sell them when dearer. Moreover, chickens hatched in September and October will sell after New Years at $7 per dozen, as much as they will bring next year when a year old if sold after harvest. I wish I could impress every farmer that nothing on his farm will pay as well as poultry; and that it is neither beneath him nor trifling to pay mnch attention to his chickens. Very little time will serve to keep the hatched brood free of lice and, after that, the chances are in this climate that, with the smallest amount of care, he will not lose a single chick. I will give my method, the sulphur and insect powder being the principle things, the rest to be modified to suit each person's own ideas. Whenever a hen is to be set I clean out her nest, place a shovelful of damp earth in the bottom, round it out slightly and then sprinkle over with pnlverized snlphur, covering with a small handful of straw. I place the eggs and make memorandnm of date. A few days before the eggs should hatch I sprinkle a little more sulphur in the nest and next day thoroughly rub the hen with insect powder. I lose no chicks.

All my roosting places were full of the small mites or hen spiders; I never see one now. I paint the roosting poles once a month or oftener with nsphtha, bought at the gas-house, price 50 cts. per gallon. I clean ont the hen-honse and paint the poles. As soon as a hen hatches her brood I clean out the nest and paint inside with the naphtha; when it dries I place in the nest a little straw, moss or earth and a nest egg. I have a hole a few inches deep in each hen-house filled with the refuse gas lime obtained from the gas-works at fifty cents per barrel. For some time the hens did not seem to notice or nse it; now as often as they wallow the hole empty I fill it again. The gas lime should be kept under cover. All this is very little trouble and will fully repay anyone who likes eggs or chickens to eat, even if he never sells an egg or a bird.

Let me say to those who thiuk they are too poor or too busy to build a hen house that one can be erected in very little time and for almost nothing. A few laths or even brush or small limbs, for posts, and a few nails will suffice, the roof alone costing anything. Mine are considered very fine houses and have cost me almost nothing, as I had some old lumber and shakes useless for anything else. I may hereafter give some plans for cheap houses.

I keep the hen roosts free from lice by using naphtha; whitewash applied hot will answer as well, but I find the naphtha is much less trouble.

I keep geeae, dncks, turkeys and chickens, many fancy breeds of all of them too, and I believe that each and all can be easily reared. Of conrse it has taken me aome time to learn the proper treatment; at firat I lost whole broods, especially of the geeae and turkeys, bnt now I consider it my own fault, owing to negligence, if I lose one, except by some accident. If anyone finds trouble, as I did at one time, I shall be glad, upon application, to give any information, considering it no trouble to answer letters.

Manuel Eyre, Jr.

Napa, Cal., Jan. 9th, 1873.

A Timely Hint.—In transplanting tomatoes, cabbages and tobacco plants, prepare a tub of manure water, and thicken it to the stiffness of mush by stirring in rich garden mold; dip the root of the plant in this paste before setting in the ground; press the earth firmly around the root, and sprinkle with manure water.

"Every cow should fatten one pig" is an old rule and good one; that is, the daily product of a good cow should be in buttermilk and weigh enough to feed one pig, after the cream and cheese are extracted.

A correspondent informs *The Practical Farmer* that he cleans and polishes his plows with muriatic acid. This searching stuff does the work in short meter, but it should not be allowed to remain on the metal.

New Wheat Insect.—It is said that an apparently new and industrious white grub, undaunted by show of frost, is hibernating very comfortably on Pennsylvania's winter wheat.

The San José woolen mills give employment to eighty-five hands—twenty-four men, three girls, five boys, and fifty-three Chinamen.

Useful Information.

Luck.

It is the shallow who believe in luck; who say of a successful man, "he always was lucky," or of an unsuccessful one, "Poor fellow, just his luck." A man's luck is generally the measure of his capacity and perseverance. Cause produces effect, the world over. Water does not run up hill, nor do we gather, even in these days of progress, grapes of thorns, or figs of thistles. If we would gather golden grain, we must first sow the seed. If we would be wise we must work for wisdom. Riches, goodness, fame, love—each has its price and can be purchased for no loss. Life is a perpetual auction, where all prizes are knocked down to the highest bidder. The world's great men have been those who have toiled early and late. Even genius can find no royal road to its goal. Goethe, and Milton, and Newton, labored as the easy-going, fine gentlemen of literature cannot conceive. If they were great, they achieved greatness—it was not thrust upon them. Luck is ever waiting for something to turn up. Labor, with keen eyes and strong will, will turn up something. Luck lies in bed, and wishes the postman would bring him news of a legacy; labor turns out at six o'clock, and with a busy pen or ringing hammer, lays the foundation of a competency. Luck whines; labor whistles. Luck relies on chances; labor, on character. Luck slips down to indigence; labor strikes upward for independence.—*N. Y. Evening Telegram.*

Force of Wind.—It is seldom that a more striking instance of the great force which may be exerted by wind, is witnessed than was observed in the recent hurricane, which swept over the island of Sicily. It is said that no earthquake ever caused so much destruction. There are houses ruined, houses fallen on the ground, walls cleft from end to end, walls hanging outward as if to rest on the adjoining houses; there are roofs wholly swept away, sunken vaults, balconies torn from their places. Not a single house remains in which the whole roof and windows do not require thorough repairs. The streets are a mass of fragments and rubbish.

The iron bars of a balcony are to be seen curled up one way, those of another twisted up another way. There is a pillar of a palace which has been moved forward one foot without breaking, and stands up isolated all in one piece. There is a wall of another palace which has fallen back more than three feet without a crack. Here is a beam of one house which has thrust itself into another house. There is half of a bedstead the other half of which lies no one knows where. All the tiles of one building were huddled together in one spot on the roof, crushed and broken up as small as if they had been pounded.

How the Chinese Build.—In China when a contractor engages to build a house, he encloses the premises and sets up cooking apparatus to supply his hired workmen with regular meals at the most economical rates. Having taken breakfast, they work until noon, rest one hour, and leave off at 5 P. M., and return to their homes. On leaving, each takes a ticket which admits him next morning. These tickets are daily vouchers of the artizan's presence. Counted up at any time a true account is rendered. A man on the ground throws several bricks to another ten feet above, and he to another still higher. Thus the masons are supplied as they ascend with the wall. Instead of carrying mortar in a hod, it is thrown by the shovel full from one story to another to any required elevation, without spilling a particle, so expert are they by continued practice.

What Shall a Workman Study?—In "Lectures in a Workshop," in the *Industrial Monthly*, T. P. P. says: If there is any doubt about what study or studies should be followed with a view to self culture, we can remove it by a simple rule given in these words namely: *Study your business.* By this the daily bread is to be earned; and it is highly probable that the knowledge of the trade engaged in exceeds the information on all subjects outside of it. Many men are continually attempting too much, and worry because they can not swallow whole volumes of literature and science in a few months; they are apt to slight their daily occupation as an unavoidable means of maintenance, and concentrate their efforts upon something quite foreign to their trade. Such men have mistaken their calling, and are wasting their time so far as self-improvement goes.

A Beautiful French Art.—A French chemist proposes a new and unique method of coloring artificial flowers. He selects colors of different tints, soluble in water, and mixes them with a clean mucilaginous gum, and then pours this out upon highly polished square glass tablets of several inches in diameter. The layer is put on uniformly, and the tablets exposed for a time to a well-heated stove. The gummy mucilage dries rapidly into a thin, polished plate, which afterward separates from the glass and falls off. It may then be reduced to a powder of any required fineness, the result obtained being remarkable for its transparency and permanency. The sheets thus obtained with analine colors are considered especially beautiful.

How They Were Wounded.—A German newspaper presents the following interesting facts with regard to the apparent efficiency of the different weapons employed by the combatants in the Prusso-French war:—

Out of 3,453 Germans wounded around Metz, ninety-five and a half per cent. were injured by the Chassepot rifle. two and seven-tenths per cent. by the artillery, and only eight-tenths per cent. by cold steel.

Among the French wounded twenty-five per cent. were wouuded by the German artillery, seventy per cent. by small arms, and five per cent. by cold steel.

These figures themselves tell a very remarkable story.

The same paper pretends that in the whole course of the war twenty-five thousand French were hit by the German artillery, so that, on comparing the number of wounded with the number of shots fired, the conclusion is inevitable, that for every three discharges of a German cannon at least one Frenchman was killed or more or less injured.

According to the statistics of the German wounded, the following proportion has beeu established in an official manner:

Ninety per cent of men were hit among the infantry; five per cent. in the cavalry; three per cent. in the artillery; and two per cent. in all the other branches of the service.

As these results have been confirmed by every course of investigation made up to the present time, they establish what had been previously asserted—first, that the Chassepot rifle is superior to a needle gun Dreyse fusil; second, that the breech-loading German artillery is superior to the muzzle-loading French.

The second proposition has never been questioned, viz., the overwhelming superiority of the German batteries.

Progress of the Manufacturing Interests. At the Eugine Builders' Convention lately held at Cincinnati, General Leggett said: "Manufacturing as it now exist in this country, is the development of the last thirty or forty years. Forty years ago, there was a blacksmith and shoe-maker in every school district, and at every cross-road all over the land. The blacksmith made horse shoes and nails, plow points, hoes, shovels, pitch forks, hinges and latches, nearly all of the builders' hardware, and much of the cutlery used. Then he was a manufacturer—his own employer and employee. Now, farmers' tools, builders' hardware, and household utensils are made in large establishments, and the village and country blacksmith have become mere tinkers, and do little more than mend or repair. The cross-roads shoemakers have degenerated into cobblers, only making an occasional pair of boots or shoes to accommodate deformed feet, not provided for in dealers' cases. Nearly all our boots and shoes are made in immense factories—some single establishments turning out over six thousand finished pairs a day. The same is true of almost every department of manufacturing.

Brown Tint for Iron and Steel.—Dissolve in four parts of water, two parts of crystallized chloride of iron, two parts of chloride of antimony, and warm the brass over the flames of a Bunsen burner or a spirit lamp, and plunge it while hot iuto nitric acid for two or three seconds. Then return it to the flame, and heat it till it blackons, brush off blisters, and lacquer. Another way is to use a liquid containing two parts of arsenious acid, four parts of hydrochloric acid, and one part of sulphuric acid in eighty parts of water.

Zinc may also be given a fine black color by cleaning the surface with sand and sulphuric acid, and immersing for an instant in a solution composed of four parts of sulphate of nickle and ammonia in forty of water, acidulated with one part of sulphuric acid, washing and drying. The black coating adheres firmly, and takes a bronze color under the burnisher.

New Uses for Soluble Glass.—The employment of soluble glass, in the chemical and industrial arts, is constantly increasing, and its value is now fully established. Recently, a cement of great hardness and various applicability has been produced by mixing different bases with this singular substance. It is found that, combined with fine chalk and thoroughly stirred, it will produce a hard cement in the course of six or eight hours; with fine sulphide of antimony, a black mass is produced which can be polished with agate, and then possesses a superb metallic lustre. Fine iron dust gives a gray-black cement. Zinc dust produces a gray mass exceedingly hard, with a brilliant metallic lustre, so that broken or defective zinc castings can be meuded and restored.

Gold in Sea-Water.—Careful experiments made upon water taken at different times from Ramsey Bay, Isle of Wight, show that seawater contains about one grain of gold to each ton of water. It is held in solution as a chloride. The presence of silver in the ocean in still larger quantities has long been known.

Transparent Soap is made by thoroughly drying soap cut in thin shavings in an oveu, then pulverizing and dissolving it in high-proof alcohol, and finally distilling off the latter till the soap will solidify into cakes.

Black and White.—Experiment proves that white letters on a black board are seen at a longer distance and always more clearly than black letters on a white board.

Good Health.

Strength and Health.

It is quite a common idea that health keeps pace with strength. I know intelligent persons who really think that you may determine the comparative health of a company of men by measuring their arms—that he whose arm measures twelve inches is twice as healthy as one who measures but six. This strange and thoughtless misapprehension has give rise to nearly all the mistakes thus far made in the physical culture movement. I have a friend who can lift nine hundred pounds and yet is an habitual sufferer from torpid liver, rheumatism and low spirits. There are many similar cases. The cartmen of our cities, who are the strongest men, are far from the healthiest class, as physicians will testify. On the contrary, I have many friends who would stagger under three hundred pounds that are in capital trim. But I need not elaborate a matter so familiar to physicians and other observing people.

No test of health would prove more faulty than a tape line or a lift at the scale beam. Suppose two brothers—bank clerks—in bad health. They are measured around the arm. Each marks exactly ten inches. They try the scale beam. The bar rises at exactly three hundred pounds with each. Both seek health. John goes to the gymnasium, lifts heavy dumb bells and kegs of nails until he can put up one hundred and twenty-five pounds and lift nine hundred, and his arm reaches fifteen inches. Thomas goes to the mountains, fishes, hunts, spends delightful hours with the young ladies, and plays cricket. Upon measuring his arm we find it scarcely larger than when he left town, while he can't put up sixty pounds nor lift five hundred. But who doubts Thomas will return to the bank counter the better man of the two? John should be the better man if strength is the priucipal or most essential condition of health.

A circus usually contains among its performers a man who can lift a cannon weighing nearly or quite half a ton. Then there a half a dozen riders and vaulters, who have comparatively little strength. If any one supposes that the strong mau has better health than the flexible, elastic ones, he has but to make inquiries of circus managers, as I have done, and he will learn that the balance is found almost uniformly with the latter. Agility and flexibility are far more important than strength, and that fine silken quality of the muscular fibre, which comes only from an infinite repetition of light and ever varying feats, is far more important than size.—*Dio Lewis, in "To-Day."*

Pneumonia.

Pneumonia is an inflammation of the lungs attended with fever. Sometimes the fever is of the diathesis termed inflammatory, and sometimes of the low diathesis to which the term typhoid is applied. In either case the chief trouble and danger wholly consist (aside from treatment) in engorgement of the lungs. They are so congested with accumulated blood that breathing is laborious, the cough severe and distressing, and the expectoration difficult. The fever may be mild or violent. But in all cases the essential point in the treatment is to relieve the overloaded vessels of the lungs. This is to be done, not by taking the blood out, nor blistering the skin, nor poisoning the stomach, but simply by determining the circulation from the lungs to other parts of the body, and freeing the whole mass of blood of its effete aud viscid matters. And all this can be accomplished by balancing tho temperature steadily at or near the normal conditon standard. In a day or two, sometimes in a few hours, and in the worst cases within a week, the patient will be fairly convalescent.

The structure of the lungs being spongy and elastic so as to allow all the blood in the body to pass through them once in three minutes, enables them to bear an immense degree of engorgement without disorganization.

The pain in the lungs may be very severe, the cough extremely violent, the breathing exceedingly distressing, the fever intense and the patient utterly prostrated, with no danger of dying, providing nothing is done amiss, for the excretory organs are gradually casting out the impurities from the whole mass of blood and the myriads of little glands in the lungs themselves are unloading the congested vessels by the process of expectoration, so that in due time the trouble is removed and the *patient* (not the disease) is cured.

In order to maintain the balance of circulation so that "nature" can perform her remedial work successfully, the surface must be frequently bathed with water of a temperature suited to the circumstances of each case, the rule beiug, the warmer the surface or any part of it, the cooler the water, and *vice versa.*—*Science of Health.*

Substitute for Quinine.—It is said that the Brazilian doctors now use the juice of the famous Eucaylptus plant as a substitute for quinine, and with astonishing success; in fact it threatens to supersede the famous febrifuge. When Eucalypti are planted no fever of any kind appears. There can be no stronger stimulus to push on the culture of this beautiful and swift growing tree in this country.

The Man of Long Life.

He has a proper and well-proportioned stature, without, however, being too tall. He is rather of the middle size, and somewhat thick set. His complexion is not too florid; at any rate, too much ruddiness in youth is seldom a sign of longevity. His hair approaches rather to the fair than the black; his skin is strong, but not too rough. His head is not too big; he has large veins at the extremities, and his shoulders are rather round than flat. His neck is not too long; his abdomen dces not project; and his hands are large, but not too deeply cleft. His foot is rather thick than long; and his legs are firm and round. He has also a broad, arched chest, a strong voice, and the faculty of retaining his breath for a long time without difficulty. In general there is a complete harmony in all parts. His senses are good, but not too delicate; his pulse is slow and regular.

His stomach is excellent, his appetite good, and his digestion easy. The joys of the table are to him of importance; they tune his mind to serenity, and his soul partakes in the pleasure which they communicate. He does not eat merely for the pleasure of eating, but each meal is an hour of daily festivity; a kind of delight, attended with this advantage, in regard to others, that it does not make him poorer, but richer. He eats slowly, and has not too much thirst. Too great thirst is always a sign of rapid self-consumption.

In general, he is serene, loquacious, active, susceptible of joy, love and hope; but insensible to the impressions of hatred, anger and avarice. His passions never become too violent or destructive. If he ever gives way to anger, he experiences rather a useful glow of warmth, an artificial and gentle fever without an overflow of the bile. He is fond also of employment, particularly calm meditation and agreeable speculations, is an optimist, a friend to nature and domestic felicity, has no thirst after honors or riches, and banishes all thoughts of to-morrow.

Hygienic Notes — Remedy for Painful Wounds.—The enclosed is excellent, and ought to be published once a year. I found it in a paper sometime ago, and have tried it and can recommend it from experience: Take a pan or shovel with burning coals, and sprinkle upon them common brown sugar, and hold the wounded part in the smoke. In a few minutes the pain will be allayed, and recovery proceeds rapidly. In my case, a rusty nail had made a bad wound in the bottom of my foot. The pain and nervous irritation was severe. This was all removed by holding it in the smoke for fifteen minutes, and I was able to resume my reading in comfort. We have often recommended it to others with like results. Last week, one of my men had a finger-nail torn out by a pair of ice-tongs. It became very painful, as was to have been expected. Held in sugar-smoke for twenty minutes, the pain ceased, and promised speedy recovery. — *Rural New Yorker.*

Dietetic Hints.—Most chronic diseses, and many acute ones, are produced at the table. As a rule, no fluid of any kind should be taken at the table, especially if the stomach is weak. The stomach should never be overloaded, not more than two or three articles should be taken at one meal; no stimulants used before eating; tobacco arrests digestion. Milk is the best diet for infants and children. Tomatoes with cream and sugar are healthy and nutritious. Bread and butter is the staff of life, and easily digested. Too much salt irritates the stomach. Colds are frequently produced by drinking hot tea and exposure afterwards. Late suppers induce heart disease. Pastry and cakes constipate the bowels. Boiled potatoes are not as healthy as baked ones. Fruits are to be eaten at breakfast and dinner. The stomach requires much rest to be healthy; purgative medicines weaken the bowels. Cheerful conversation promotes digestion; anger prevents it.

Cure for the Opium Habit.—In a recent report on the condition of the English hospital at Pekin, China, the attending physician gives a formula for "anti-opium pills." This remedy is composed of extract of henbane, extract of gentian, camphor, quinine, cayenne pepper, ginger and cinnamon, with castile soap and syrup to form the coating. The efficacy of these pills in overcoming the opium habit, and in preventing the suffering on giving up the use of that poison, is stated to have been proved in numerous cases. The native remedies, it is said, contain opium in some form, and most frequently the ashes of opium already smoked, and consequently are inefficacious—it being as difficult to discontinue the use of the medicine as of the drug itself.

Ammonia for Whooping Cough.—Since it has been shown that the inhalation of air changed with the vapors of ammonia are beneficial in cases of whooping cough, M. Groatham, of Paris, has been experimenting on the effects of boiling strong ammouia in the room where the patient was, with decided success.

Fruit and Intemperance.—A medical writer remarks that he has never known a person decidedly fond of fruit who became intemperate; and he considers the two tastes as naturally antagonistic.

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SAN FRANCISCO:

Saturday, Jan. 18, 1873.

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MISCELLANEOUS.—The Use of Zinc; Decay of Stone; A Planet Between Mercury and the Sun; New Theory of Cyclones; Flour Without Millstones; Singing Flames, 35. Winter in the Sunny South, 46.

THE PIONEER.—This paper has the audacity to speak of one of our excellent soliciting agents, in this wise:—

We like to see newspaper men rewarded on this earth, as it is not at all probable that heaven will confer upon them its choicest blessings. We are swelled with pride, then, to know that that genial and urbane gentleman, L P McCarty, agent and traveling correspondent of the RURAL PRESS and other journals published by Dewey & Co., of this city, has been the recipient from the proprietors, of a heavy gold chain and a beautiful gold locket with quartz setting as a New Year's present. Mr. McCarty well deserves this generous appreciation. His host of friends will be glad to learn that he has been so handsomely done for. By the way, will none of the angelic lady spirits take pity on Mc and marry him. It's an unspeakable agony to see such healthy bachelors running around wild with nobody to sew on their buttons or broomstick them."

BRYANT'S NURSERIES.—We have received the price list of fruit, evergreens and forest tree seeds for the spring of 1873. We are glad to see nurserymen everywhere adopting the plan of giving the prices to pounds and ounces of seeds; purchasers from a distance can know just how far their money will go in the purchase of seeds when they remit. Send for catalogue to A. Bryant, Jr , Princeton, Ill.

WILD CROSSES.—Experimenters in Europe who think that progress may be made through wild crosses, have been breeding the Zebu upon the ordinary stock of the country. The progeny proved poor milkers of course, and also obstinate and intractable. Some years since, working cattle were to have been produced by crossing the American buff lo, (bison) on our native stock, for working cattle, which of course proved a failure. Wild animals, like wild men, cannot improve a civilized stock.

Alfalfa and Fruits.

C. S. M. of Linden, San Joaquin county, asks for information regarding the culture of alfalfa, the soil best adapted to it, time of sowing, etc. Also asks for the best 4 or 6 varieties of early apples, pears, peaches, cherries, apricots, nectarines and grapes, and the same number of late varieties.

In former numbers of the RURAL we have given the best 20 varieties for a succession from the earliest to the latest. We find different varieties recommended for different localities and it is quite impossible to find any two fruit growers to agree. There are so many reasons for deeming an apple or other fruit as first or second best, that we are not surprised at the difference of opinion.

One wants it for home use entirely; another to meet the market demand; one has only a short distance to carry his fruit and entirely by steamer and therefore can manage to put the very tenderest and most delicate kinds upon the market; another must convey his a long distance both by wagon and railroad, and he finds a less tender apple or other fruit the only kind he can raise to advantage, and so it is, that the same that would be best for one would not be for another.

We will gladly give place to lists of fruits, ripening in succession, from any of our nurserymen or tree sellers or fruit growers, and we think it would be a very good way of calling attention to stocks of nursery trees if the proprietors would publish such lists in the RURAL.

We know of no treatise on the culture of alfalfa. It will give the heaviest crops on alluvium or the lands along the rivers generally, but it will grow well almost everywhere; and good wheat land will grow alfalfa; but if very dry and hard in summer, irrigation vastly increases the product.

It can be sown at any time from now to April. The soil should be made fine, the seed sown upon the surface broadcast, and bushed or harrowed in with a light, fine toothed harrow, in all respects as you would clover; and that this may also answer the inquiry of G. N. W. of Santa Rosa we state, that from 18 to 20 pounds are sown to the acre; also that Jute seed can be procured of our advertising seedsmen.

Moral Status of the Rural.

We have received a note from J. G. W., of Antioch, Contra Costa Co., accompanying the money for renewal of subscription. The note speaks of the RURAL as a paper in which he has never noticed anything that would contaminate the purest mind, and believes that children growing up under the influence of such and similar periodicals, can hardly fail of becoming just such men and women as the world so much needs.

From W. B. also we receive words of cheer and money for the RURAL for 1873. He says the PRESS has been a steady and welcome messenger since its first issue, and we are always impatient for the next number; and speaks of its not being filled up, as it were, with merely the floating topics of the day; but goes to the *bed-rock* of science, at the same time always open to severe, scientific criticism, without seeming to take offence.

We would be glad to accept the kind invitation of W. B. to visit him at his home, near Milpitas. We might fill columns of the RURAL with similar expressions of appreciation, but we dislike to be called egotistical, so we pass the letters to the hook, with a note to the effect, that, if we ever pass that way, we'll call.

Inquiry About Sheep.

EDS. PRESS:—Will you through your widely circulated paper, among our sheep producers, permit me to ask them to answer me some, if they will all, of the following questions: First, with 2,000 average grade ewes, what would be the expense of herding, doctoring, shearing, grazing, loss from age, taxes, etc., that is, 2,000 sheep with their increase for 5 years? Then with the above number, what would be the increase, wool and whatever profit may be expected, in connection with the above? Could I find also the expense per sheep for keeping, etc? Let it be understood that the original cost of the sheep will be $3 per head. By allowing the above questions to be propounded through the RURAL you will oblige a

SUBSCRIBER.

Florin, Sacramento Co., Cal.

Beet Sugar in New Jersey and East Tennessee.

We have been allowed the perusal of a letter from a gentleman in Jersey City, who in connection with others contemplate the manufacture of sugar from beets in New Jersey. They have the past season, with a view of testing the quality of beets for sugar, grown several lots of beets, and find they contain on analysis from 13 to 15 per cent. of sugar. That the juice on being defecated and evaporated, crystallized readily.

We have no doubt of the ultimate general introduction of beet sugaries to many of the Atlantic States, where the soil is suitable, and labor and fuel are not too costly. The steady growth of this industry in all the European countries to which it has been introduced, is sufficient evidence that it can also be made to pay largely here. We don't like to give up to any such idea as, that Europeans, French, German, Russian, Hungarians and Bohemians, all of whom are successful in manufactnring sugar from beets, have any more or better brains, or are any more scientific in the application of labor, than are Americans; but believe we can accomplish just what any other people can, in this or any other business so completely simple as is sugar making from beets, when once understood.

A correspondent of Knoxville, East Tennessee, asks the address of some one or more of the persons interested in the beet sugar works at Sacramento.

The works are owned by a stock company, composed as follows: Henry Miller, Edgar Mills, Chas. Crocker, E. B. Crocker, Leland Stanford, E. H. Miller, Mark Hopkins, Julius Wetzlar, H. G. Smith, Philip Scheld, W. E. Brown, S. Ehrenstein, Conrad Stose, F. Mier, Chas. Kleinsorge, Milliken Bros., T. M. Lindley, S. Lavenson, and W. Wadsworth; the latter, the originator of the enterprise. President, W. E. Brown; Secretary, —— Moore; Directors, W. E. Browne, Julius Wetzlar, H. G. Smith, Theo. J. Milliken, S. Lavenson; Superintendent, S. Ehrenstein.

How to Buy Sacks.

The Secretary of the Stanislaus Farmers' Club writes: "We have Honorary Vice-Presidents in every school district of the township. We ask them to take a sack list and call upon all the grain raisers in their district, ask them to join the Club roll, pay a dollar and then if they like, let them subscribe for sacks, taking their note for the same payable on condition the sacks are delivered as per agreement. Where a Club is not thus organized an agent might be sent out and do this business under the auspices of the Club, he to receive pay from fees collected. If this was done throughout the State, I think we could bny a sack or two without the ring."

In the above we have at least a good idea, something tangible that can be carried out in a business like manner, and ramificating throughout the entire State, or wherever there are school districts organized. It is a capital way of reaching out for the advancement of our interests and is a better plan for the accomplishment of our purposes than making long newspaper harangues and calling our sack merchants by awful hard names, for trying to get for their sacks just what we are trying to get for our wheat—all we can.

Sacramento Rain-fall.

SACRAMENTO, Jan. 14th 1873.

Total rain-fall since 1st of Jan., to date.....	0.960
Total rain-fall for season prior to 1st inst.....	7.540
Total for first half of season.....	8.500

The Barometer is now high, the wind N. W. and the probability is that the first rainy term is over, and there will perhaps be an intermission. As the latter rains are generally in proportion to the former, we will doubtless have an abundance for all agricultural purposes, and possibly the rains may extend late into the spring.

T. M. LOGAN.

ALFALFA SEED.—We are asked the price of alfalfa seed in San Francisco, and where it can be obtained. It can be had of the seedsmen who advertise in the RURAL. The price varies with quality. Good Chili seed can be bought at 25 cents a pound; first quality California grown seed, is selling from 30 to 35 cents a pound. The difference in price in California seed arises from the fact that some is shriveled, being unsound or unripened seed and comparatively valueless.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 14th, 1873.

FOR WEEK ENDING DECEMBER 31st, 1872.*

WOOD PAVEMENT.—Henry M. Stow, S. F., Cal.
WAGON-BRAKE.—Ezra T. Buckman, Sonora, Cal.
PUMP.—Ira D. Cross, Petaluma, Cal.
PRESSER FOOT ATTACHMENT FOR SEWING MACHINES.—George Vincent, Stockton, Cal.
ORE-FEEDER FOR SHAFT FURNACES.—Edward V. Standish, Belmont, Nev.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Oranges and Frosts.

One of our interior exchanges says: "Oranges are raised near Jackson, in Amador county. Jackson is well up in the higher foothills where there are frosts, but they do not seem to blight the orange trees or injure the fruit in the winter season."

There should be no surprise in regard to this, for orange trees will stand uninjured a degree of cold several degrees below freezing without any apparent injury to tree or fruit.

Mr. F. A. Herring, a nurseryman of experience in Butte county, informs us that the orange will endure 22°, or ten degrees below the freezing point of water without injury; doubtless owing to the peculiar quality or constituents of the leaf and limb. Hence the reason why we can raise good oranges successfully, where ordinary white frosts or even thin ice formations are made.

Ice is frozen dry at 32° Fah., and white frosts may cover the ground till noon-day, yet if the thermometer does not indicate a degree of cold below 22° oranges escape injury. Hence the wide range in all the lower valleys of the State adapted to the successful cultivation of this fruit.

WINES IN THE FOOTHILLS.—J. A. Pierce, agent for RURAL PRESS, writes us from the foothills, that Mr. H. L. Hatch of Vine Hill, near Indian Springs, in Nevada county, made from 900 five year old grape vines, 1,400 gallons of excellent wine in 1872. From the same vines in 1871 he made 1,100 gallons, and this after a very large consumption of grapes by the family. Who has done better than this from the same number of vines? The vines are set seven feet apart each way, and the varieties are one-third Mission, one-third Black Hamburg and one-third Rose of Peru.

Australian Blue Gum.

E. A. G. of Petaluma, asks for information in regard to the growing of the Eucalyptus or Australian Blue Gum tree; says he has "the seed in the shell," would like to know how to extract it; and some directions about starting the young plants.

Expose the "seed in the shell," to the sun, which will bring out the seed, without injury to it. Sow the seed now, if you can do it under glass, that is, in a green or hot house. Sow thickly in pots or boxes of garden soil having a large excess of sand in its composition. Sow shallow, a half inch being sufficient, keep the soil moist, not wet.

After the plants have made their second leaves, transplant to the nursery row and cultivate one year; then to the places where the trees are to stand. Keep weeds and grass away from the trees, and the surface of the soil around the trees, in a perfectly mellow or friable condition. This is the usual method adopted. There is a better way but it is not popular; it is to transplant from the pots or boxes, directly to the places where the trees are to stand.

This makes better rooted trees, and trees that will not blow over with every little gust of wind that passes them; but it is a little more work, to cultivate and protect them the first year. If no green house is at hand, improvise one by putting a window sash over a box with full exposure to the sun. Or wait till the season and soil are sufficiently warm to admit of sowing under the open air, without liability to frost.

Tulare Valley.

Eds. Press:—Having heen a reader of the Press for nearly two years it is only natural that I should become interested in it, as I am a farmer and desirous to get all the benefit I can from the experience of others; at the same time I would like to reciprocate in some way, but never having written an article for an agricultural paper I feel my inability to do so; hut as I seldom see anything in your very valuahle paper from Tulare, I thought I would try to say something, and if it is worthy of a place. well, if not send it to the waste basket.

Our county was first settled with that class of men who were satisfied to eke out a living by raising stock, disdaining anything like work, unless they could do it on horseback. Men kept hundreds and sometimes thousands of cattle and rarely had milk or butter on their tables. Such men rarely made any suhstantial improvements on land; seldom owned a farm, and if they did, you rarely see anything like home comforts about them. Our merchants imported flour and hacon, and to-day we have Bodega potatoes and New York butter in our town.

I am glad to say that within the last few years we are improving; a hetter class of men are coming among us, our slow coaches are giving way, and the railroad has been a great henefit to us in that particular. We are now heginning to farm in earnest; last year we had a surplus of grain, but the tariff on freight was so high that thus far we are kept out of the market; hut with God's hlessing we intend to douhle our diligence; we have heen blessed with an abundance of rain for the present aud we intend to enlarge our farms, sow more acres, cultivate our land better, and will no doubt diversify our crops more.

It is now generally helieved that we can grow cotton successfully; some experiments are being made with the silkworm, and ere long the ramie plant will he tested, no douht. At present we know that our fruits are not excelled for richness or quantity hy any other portion of the State, and more, we intend to have a narrow gauge railroad from Stockton to Visalia, when we expect to be able to put our products into market at a living rate, both to our farmers and the railroad too. I say we intend to have it; I mean what I say; we dou't intend to sit still and see all the rest of the Pacific coast prospering and growiug rich, and we kept back hy extortionate prices of freight; we intend to come into the market with our grain, wool, wine, fruits and vegetables, as well as with our beef, mutton and pork.

We inteud ere long to organize our agricultural societies, hold our valley Fairs, and organize farmers' clubs; in fact, we intend to come face to face with the rest of mankind at no very distant day. But lest I weary you I will close.

G. F. P.

Visalia, Jau. 6th, 1873.

We shall he pleased to hear from G. F. P. whenever he can find time to communicate, and we hope others in Tulare Valley and all the great valleys and all the little valleys of tho State, will let us hear from them on every suhject connected with the agricultural interests of their respective localities.

The Farming Prospect.

We can hardly go back to the year within the twenty last past, and find a season which promised to be more propitious at this time in January than the preseut. In the first place the early fall rains were not of that drenching and bleaching nature that spoils the dried grass, and puts the animals on thousands of California farms on short allowanco or iunutritious food.

When the rains finally came in copious abundance, it was so warm and genial that with or without sunshine the green grass sprang with magical quickness from the warm earth and in ten days clothed the hills in every direction with a fair bite for grazing animals; and now, the 14th of January, we feel that our winter is passed; and we noticed yesterday a flock of blackbirds ou their return, took posession of the trees of Clay and Washington street plaza for a full half hour and then started to the northward.

Iu a few localities the almonds aud apricots are in blossom, oranges of the new crop are just heing picked from the trees, vegetables of every kind are fresh from the gardens, the grain-fields are being spread out over surfaces never eqalled before, and with later rains as copious as have beon the earlier, a season of prosperity will attend the efforts of the husbandman never before equalled iu the history of the State.

Shad for California.—A large number of shad eggs are to be sent from the Smithsonian Institute this month, to California to be deposted in our rivers. A quantity of "white fish" eggs are also to be sent.

Fruits of California. No. I.—Eastern Apples Grown in California.

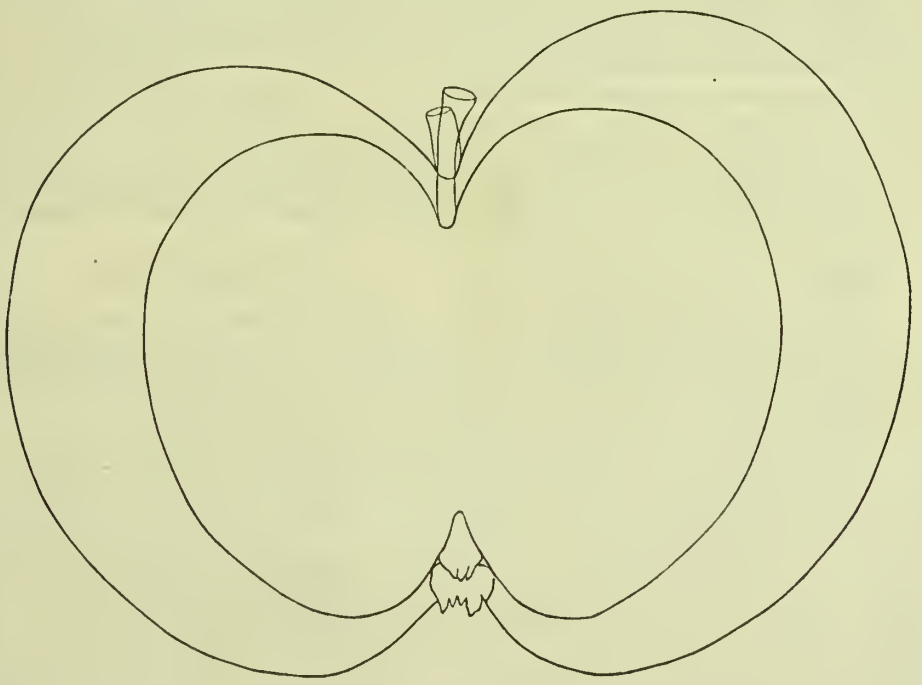
King of Tompkins County.

Written for the Press.

This splendid apple, supposed to have originated in Tompkins county, New York, of which I give an outline drawing ahove from a specimen grown on Mr. J. Harmon's "Sunny Side" farm, Sonoma county, Cal., and shows more than douhle the size of the same apple grown on its native heath. Here, it measures 15x14 inches in circumference, and weighs 19 to 20 ozs. In New York State, taking Downing's drawing, now before me, it measures about 8x9¾ inches.

The specimen from which I made the above outline drawing was of a beautiful deep red color, the ground slightly relieved hy a mellow shade of fawn, giving it a very rich appearance. It is a fine-flavored, delicious apple here, as iu the Empire State; but does not keep as long here as there.

Dowuing, in speaking of this apple, says its origin is uncertain; it is much grown in Tompkins and the adjoining counties; said to be a valuable market fruit. Tree, very vigorous, spreading, an abundant bearer annually. Fruit large, globular, inclining to conic, sometimes oblate, angular. Skin, yellowish, mostly shaded with red, striped and splashed with crimson. Stalk, rather stout and short, inserted in a large, somewhat irregular cavity. Calyx, small and closed, set in a medium, slightly corrugated hasin. Flesh, yellowish, rather coarse, juicy, teuder, with an exceedingly agreeable, rich vinous flavor, delightfully aromatic, December to March.



DIFFERENCE OF SIZE BETWEEN CALIFORN'A AND EASTERN GROWN APPLES.

As before observed, this apple does not keep as long in California, as at the East. I have fine specimens of it now growing ou my old ancestral homestead in Tompkins Co., N. Y., ("the place where I was boru") and can vouch for the accuracy of Mr. Downing's description, in the maiu, so far as relates to the apple grown in its native state. But its translation to California, as will be seen, gives it quite a different appearance, and disproves the very prevalent idea that the apple grown in this State is not equal in flavor and quality to the same fruit produced iu the Eastern States.

I have drawings of all the principal apples aud pears grown iu California, and shall furnish illustrations for the Rural Press of any that may be desired. T. Hart Hyatt.

Home Cottage, Oakland, Jan., 1873.

In order that the reader may be better able to form a correct idea of the difference between this apple as given here and at the East, we have copied the drawing from page 240 of "Downing's Fruits and Fruit Trees of America" where it is given, in outline and size, just as it is found in New York—placing Downing's outlino within that furnished us by Mr. Hyatt. We shall be pleased to receive further drawings of California fruit, as promised by our correspondent.—[Eds. Press.

An Electrioal Brake.—It is said that successful experiments have been recently made on the North London (England) railroad of a new brake worked by electricity. The invention consists in the application of electro-magnets, exerting a force of 600 lbs. to pulleys on a swing shaft underneath the carriages. By merely pressing a key the guard is enabled to bring the train to a stand-still.

Freeport, Ill., Beet Sugar Factory.

Mr. C. H. Rosenstil, who became interested in the beet sugar factory estahlished by the gentlemen Gennert, at Chattsworth, Ill., on its removal to Freeport, in a private note to one of the editors of this paper, says:—"I have had a great deal of trouble in getting started, to break in about a hundred hands, all inexperienced. A great deal has heen wasted in consequence; but I think I have overcome all difficulties now. The works are getting along nicely. Sugar is coming out now satisfactorily, and you will find that sugar manufacturing interests will take the lead in this Northwestern country; for you know we have as good soil and climate as there is in the world; and since they build one beet sugar factory after another in Germany, Russia, France, and other couutries, and make them pay where they must pay $14 per ton for coal, while we pay here but $3; and where a factory like ours, with the capacity to work up fifty tons of heets per day, has to pay to the Government $262.50 per day tax, and we, not anything, I can see no good reason why a factory should not pay here, where there is evcrything in our favor.

"I consider it a disgrace to this country that, while all other countries make their own sugar, and export beside, we should sit still and pay hundreds of millions of dollars for imported sugar. This is what prompted me to undertake to build a heet sugar factory. I thought if I could bring this industry into a state of perfection here, and demonstrate its profit, I should have accomplished a great deal for my country:

"We have a splendid factory, built of stone aud brick. The maiu building is 374 feet long, and from 50 to 66 feet wide; another building is 142 feet long; the boiler house is 85 feet long and 55 feet wide; the smoke-stack is 120 feet high. The boiler house is so arranged that we can throw coal from the cars immediately in front of the boiler. Germans who have visited us, familiar with the business in Germany, say we have things as nicely arranged as they ever saw them in the factories in that country."

We are glad to hear of the good prospect that Illinois is to demonstrate the practicability and profit of manufacturing beet sugar. We know no man in the West more likely to win success in this, his latest ambition, than Mr. Rosenstil; for he is not one of the sort of men who fail. As a farmer, stock breeder, horticulturist and manufacturer, he has proved himself to be one of the most successful in Northern Illinois. We are sorry to hear of his failing health.—*Moore's Rural New Yorker.*

Walnuts, Olives, Etc.—As the olive and walnut are to become pre-eminently the fruit trees of this section of Southern California, we shall lose no chance for impressing upon the people here their importanco, and publish all facts connected with them. The crop of fruit from the few trees growing here is unfailing, and to show what fine growths the trees make, we append measurements made this week in the Mission orchard by F. S. Leach, Wm. C. Carr and self: Waluut 60 inches in circumference, five feet from the ground; palm, 96 inches; olive, 102 inches, four feet from the ground, and 162 inches one foot from the ground; a pear tree, the property of J. B. Ysoardy, 124 inches five feet from the roots. These trees were planted by the Mission Fathers many years ago, perhaps not less thrn 80 or 90, and are yet frcsh and vigorous without cultivation or irrigation.—*Ventura Signel.*

Wool in New York.

We like to keep our readers posted in regard to the value of a product that now figures so largely among the exports of our State. There is a considerable quantity of wool yet in first hands or their agents, and holders are desirous of realizing if possihle, hefore another clip shall lap over upon the one now on hand. We extract from the *Monthly Wool Circular* of Jan. 2d, 1873 of Walter Brown & Son, New Yoik, the following:

A review of the wool market, during the year just closed, reveals many peculiar and not altogether uninteresting features. The year 1872 opeued ou an unusually active and huoyant market, with prices strongly tending towards war rates. This state of things continued through January and February, during which period manufacturers, most of them, laid in large supplies. High prices drew hither large supplies of raw material from all the markets of the world, and it was now seen that the deficiency in our own Domestic clip was more than made up. Consumers were however disappointed in sale of their productions, and suddenly withdrew from the markets, and prices as suddenly fell. The suhsequent dullness, and the steady decline in values which followed, was nearly as great as the activity and high rates which had previously prevailed.

For nearly six months the Trade labored under this depression; but during the interim the supplies in the seaboard markets, which had not been materially augmented, became reduced, and a reaction set in, which hy Novemher established an advance of five per cent. But manufacturers were not eager to take hold, and bought only as their needs required.

The Boston fire gave an impetus to this advanco, and prices rose rapidly; but it being found that losses by the fire bore heavily on many manufacturers, directly and through their commission houses, cash huyers were offered inducements in the way of concessions: and hy this means, as much as hy other, extreme values were not reached.

It is, however quite noticeable that a firm feeling pervades the whole trade, with the general opinion that early in the New Year higher figures will he obtained; resulting probably from the fact that stocks of Domestic Wools in the Eastern Markets are very light, and such Wools as still remaiu in the West are mostly held by farmers and second hands at extreme rates, with no indications of yielding hefore the near approach of the New Clip; also that few, if any, orders have gone abroad for Foreign Wools, owing to the unremunerative character of last season's operations.

The month just closed, usually a quiet one in the Wool Trade, was marked by many large transactions, and there was more or less activity throughout; hut the stringency in the Money Market and very high rates ruling for all mercantile paper (wool and woolen paper heing under a cloud since the Boston fire), and more closely scrutinized than any other, have prohably prevented any speculative movemeut, which otherwise would have taken place. With relief from this quarter, such an event is not unlikely to occur during the present month.

Stocks of all descriptions in the markets are quite small, and holders are firm in anticipation of further improvement; and the facts we have stated seem to warrant the opinion that, should the machinery of the country continue to be actively employed, a short supply during the next few months is inevitable, except it be increased from abroad at necessarily higher values than now prevail.

California Wools are without material change in values, a fair consumptive demand during the early part of the month, having lessened the supplies in first hands.

Spring Clip, fine	43@47
Spring Clip, medium	43@47
Spring Clip, low grades and burry	33@40
Fall Clip, A 1	28@30
Fall Clip, low grades and burry	23@25

A New Fire Escape.—We were present to witness the operation of a new "Fire Escape," in front of the Occidental Hotel on Wednesday. We did not learn who the inventor is, or hut little in relation to it. It was evident however that with the aid of a line or cord and an exceedingly small apparatus, which we did not get the chance of examining, that a person can let him or herself down from auy hight of windows with safety and dispatch, requiring less than two miuutes to open the window, attach the rope and descend safely to the ground. We shall probably uotice it further.

Hand-book on the Horse.—We havo received a very neatly bound volume of 137 pages from A. Roman & Co., booksellers, 417 and 419 Montgomery street, S. F., on the Treatmeut of the Horse, in the stable and on the road; or hints to horse owners; by Charles Whartou. The work is profusely illustrated with engraviugs and the matters treated of, the use and management of the horse in health and sickness, seem to be well handled, making it an interesting and valuablo work for tho horse owner.



Poor Farmer John.

BY MRS. H. M. B. GOODWIN.

Old Farmer John is sore perplexed—
Nay, Farmer John is really vexed;
He labors early, labors late,
Yet ever talks of adverse fate;
For all his toilings scarce suffice,
Of longed-for lands to pay the price.

The summers come, the summers go,
The spring showers waste the winter snows
The while, from dawn till close of day,
Receiving naught but frowns for pay;
His good wife toils; and anxious care
Has faded lip and cheek and hair.

Acres on acres stretch away
Of woodland, corn, of wheat and hay;
His cattle roam o'er many a hill,
His brooklet turns the groaning mill;
Yet still he sighs and longs for more,
And grumbles e'er that he is poor.

Four sturdy sons, four daughters fair
Claimed at his hands a father's care;
He gave them labor without end,
And strove their souls, like his, to bend
Into the narrowing groove of thought—
Gold to be earned, land to be bought.

Yes, Farmer John is growing poor!
You see it as you pass his door.
His old brown house is small and mean
The roof is warped by crack and seam;
The leaning bars, the half hinged door,
Proclaim old John is *very* poor.

No books, no pictures on the wall;
Carpetless rooms and dreary hall;
Why think it strange such farmer's boys
Should seek the city's pomp and noise?
Should learn to loathe the sight of home,
Where naught of joy or grace may come?

Why think it strange his poor old wife,
Who coined for him her very life,
Should pause, at last, despite his frown,
And lay her weary burden down
In joy, to walk the streets of heaven,
Where naught is sold, but all is given?

Go where you will, search earth around,
The poorest man that can be found
Is he who toils through life to gain
Widest extent of hill and plain;
Forgetting all his soul's best needs,
In counting o'er his title-deeds.

—*Christian Union.*

A Woman's Views on the Firewood Question.

Intelligent men and women seem to be aiming after a higher state of culture and refinement than ever before, and to work with brain as well as with hand. And I think that brains are needed on the farm in planning and managing one's work as anywhere else. How much inconvenience and discomfort (to say nothing of poverty) is avoided to know how to plan and work. Take the wood pile for example, (and you, sisters, may read this to your "better halves," if you think they deserve it—for I am writing it for them). Some men seem to think if they get up a supply of wood at the door or in the shed—just as they haul it from the woods—that is sufficient; they can fit it any time for the stove. But this any time does not come in a convenient time. They have to delay their teaming and other necessary work in the winter, making the short days shorter; and those who are waiting or employing them are fractious and ungentlemanly by their neglecting to have their wood prepared beforehand. Such men, I think, work more with their hands than brains. The prudent housewife sees and feels all this, while her morning biscuit are often spoiled in the oven, her dinner partially cooked, and her supper drags along till a late hour, when the house ought to be quiet and still for enjoyment. And who can tell the discomfort and discord it causes in the home circle?

The wife and mother, who would have her meals prepared in due season, and her house neat and tidy, is often obliged to call her husband from an important engagement, or leave her pastry and take the ax or saw herself and fit her own fuel. She has friends or strangers come to visit her, whose presence and company she would like to enjoy; but she must neglect them, and with chattering teeth and aching fingers go to the wood pile and find something dry, if she can, to start the fire. Perhaps the children, or the husband himself, may be sick, and it may be necessary to keep a fire all night. Then, in the time of great need, there is not wood enough cut to keep a fire one night. I am well aware that this is not the way with all men; but there are many I know to whom this will apply.

I can now call to mind a well-to do farmer past the meridian of life who boasts of broad fields of fifty acres of woodland; but his family is compelled to burn green wood in the winter through his negligence. On conversing with such men they say they would be glad to have their wood prepared beforehand, but they have no time—if they had as much time as their wealthy neighbors, they would surely do it. As though the thrifty man's calendar had more days in it than theirs; and as though it would take more time to fit it in a few weeks than it would to be about it three hundred and sixty-five days. Yet these men have time for loafing at the village store, or leaning over the line fence, looking at a neighbor's garden, or to talk with a passer-by.

These men think their wives and children must always be pleasant and cheerful, kind and loving—not realizing that the sadness on their faces, the sigh that escapes their lips, is caused by their neglect and want of proper management. For the man who is careless about the firewood is apt to be so about other things. When I see a lot of wood all fitted for the stove, seasoned and under cover, I think that man loves his wife, loves domestic happiness, and knows how to work with brains as well as hands. Our lives are short at the most. Then let us manage all our affairs to secure to ourselves and children the greatest amount of enjoyment and happiness.—*Cor. Maine Farmer.*

To Distinguish Good Calico.

The cost of a yard of calico is a matter of considerable importance to the consumer who studies economy; but unfortunately there are those who in wishing to practice frugality deceive themselves into the idea that because an article is low in price it must necessarily be cheap. The result of this is a demand upon the manufacturer for low priced goods, and he, to keep pace with the wants of his customers, introduces into his wares, when practicaple, certain preparations calculated to hide the flimsiness of the products he is thus called upon to supply.

This system of "dressing and finishing," as it is called, is practiced at the present time to a greater extent than it ever was before, owing to the enormous advance in the price of cotton of late years. The most common calicoes are "dressed" with flour, china clay, etc., and are generally so artfully "filled" with one or other preparations as to be very deceptive to the inexperienced eye.

When, however, such a dressed fabric comes to be washed, the "extra fine finished," as it is not unfrequently called, disappears, leaving a soft, flabby and loosely woven texture in the hand, while the water in which it has been soaked is almost thick enough for bill sticking purposes. The finest 'makes," on the contrary, contain scarcely any flour, and should never appear any worse for a soaking in the wash tub.

In order to ascertain to what extent a plain calico is finished, we have but to rub a small portion of the piece to be tested sharply between the finger and thumb of each hand, for this "makes the powder fly," as the Manchester men say. If it be of the most common quality, a quantity of "dress" will be extracted, and we shall soon see that the threads are left as far apart as those in a sieve, crossing each other unevenly, and on places going off, as it were, in tangents. Then, if we draw out a single thread and pull it asunder, it will be found to break with a snapping. If, on the contrary, the calico is a good one, scarcely any dressing will come out of it on rubbing it; the threads will appear closely woven together; a single thread drawn out will rather burst than snap when pulled asunder, and the separate ends of such thread will present a fluffy appearance, while the whole piece will be firm and elastic to the touch.—*Ohio Farmer.*

Home Conversation.

Children hunger perpetually for new ideas, and the most pleasant way of reception is by the voice and ear, not the eye and the printed page. The one mode is natural, the other artificial. Who would not rather listen than read? An audience will listen closely from the beginning to the end of an address which not one in twenty of those present would read with the same attention. This is emphatically true of children. They will learn with pleasure from the lips of parents what they deem it drudgery to study in the books; and even if they have the misfortune to be deprived of the educational advantages which they desire, they cannot fail to grow up intelligent if they enjoy in childhood and youth the privilege of listening daily to the conversation of intelligent people.

Let parents, then, talk much and talk well at home. A father who is habitually silent in his own house may be, in many respects, a wise man; but he is not wise in his silence. We sometimes see parents who are the life of every company which they enter, dull, silent, uninteresting at home among their children. If they have not mental activity and mental stores sufficient for both, let them first provide for their own household.—*Ohio Farmer.*

Fitting a Boy for Manhood.

One of the best ways of fitting a boy for the career of manhood and of ensuring his success in it, is to enlist his young, eager, and irrepressible activities in something *practical*. The restless energy which bursts out into all kinds of mischievous pranks, if it has no other outlet, is just what he will *need* in the hard work of life. It does not want curbing, but directing. Responsibility is an excellent balance-wheel.

Give the boy this balance-wheel. Give him an interest in your own business, if possible—in your farm or in your store; let him him have a share in the labor and the profits; or, if he shows a decided taste for some other employment, *encourage it.* Give him every opportunity to study agriculture, or engineering, or art. Let him feel that he is going to be a man, and is preparing for a man's work and position. Make him your friend and companion. We know no better means of making a boy manly, and of keeping him "out of mischief," than such a course.

The history of bad boys and bad men is, in a large majority of cases, written in these words: "*They had not the proper training and incentive.* Many are the prison occupants of to-day who can blame their parents for the lack of proper government and discretion in directing their children's mind and forming their habits. And many a child, now a bright promising boy, will look out from a grated window a few years hence, less a victim to his own bad heart than to his bad bringing up.

Take warning in time, O anixous parent, to give your boys every incentive to industry and good habits; even to early enlisting them as partners in your business, whatever that may be; and O boys, take warning in the sad solemn histories of those youths who have perished before you, by sad associations and indifference to the future.

The Courage to Live.

We need not preach the courage to die—that is common enough—but the courage to live, to be honest in spite of poverty and neglect; to be true, though all is dark except where God shines in; to be faithful, though heavens fall and hearts break, and friendships turn to gall. Yes, we must teach men to dare to be unpopular, to be misapprehended, to be ahead of the times, to follow the voice of God though it leads into the wilderness, to tell the devil to his very face that he lies, and also to give him his dues—an act which requires the supremest courage at times.

I wouldn't give a farthing for the triumphant faith of the death hour, unless it comes from that triumphant faith that makes our life full of noblest daring, that is ready to fling aside honor, wealth, the praise of friends, rather than impair for one moment the soul's integrity. Oh, for such a courage—the courage to think, to act, to tell the harsh truths, to overthrow splendid falsehoods, to disown sweet lies and to banish tenderest associations rather than check in the least the free movement of the sovereign soul. We all must die with more or less equanimity, but we cannot live in the full splendor of our being except by courage and determined exertion. The coward, under certain circumstances, may die grandly; but never under any circumstances, can he live grandly.—*Liberal Christian.*

THE HUSBAND.—The ladies sometimes do not value their husbands as they ought. They not unfrequently learn the value of a good husband by the loss of him. Yet the husband is the very roof-tree of the house, the corner-stone of the edifice, the keystone to the arch called home. He is the bread-winner of the family, the defence, and its glory, the beginning and the ending of the golden chain of life which surrounds it, its consoler, its law-giver and king. And yet we see how frail that life is on which so much depends! How frail is the life of a husband or father! When he is taken away, who shall fill his place? When he is ill, what gloomy clouds hover over his place! When he is dead what darkness, weeping, agony! Then poverty, like the murderous assassin, breaks in at the windows; starvation, like a famished wolf, howls at the door. Widowhood is too often an associate of sackcloth and ashes. Orphanhood, too, means desolation and woe.

BUBBLES look well while they last, but they cannot stand pressure.

YOUNG FOLKS' COLUMN.

Going Home to be Forgiven.

Some boys were playing at ball in a retired place one afternoon when they should have been at school. They absented themselves without leave, intending to go home at the usual hour. Thus they thought their absence would not be noticed by their parents and friends.

While thus engaged Mr. Amos came along. "What are you doing here?" said he. "Your parents think you are at school. I shall let them know where you are and what you are about."

He passed on and the boys stopped playing. What was to be done? He would be sure to tell their parents. It was too late to go to school and too early to go home. Their consultations came to no comfortable conclusion; the probabilities of punishment were talked of. Some thought they might escape, but the prospects of most of them were not promising. At length John Roberts rose up and said: "I'm going home."

"What for? To get a flogging and have it over?" said one.

"No; I'm going home to be forgiven," and away he went.

John had never played truant before. He had very kind parents and they would deny him nothing that was for his good, and he felt that he had treated them very ungratefully by acting contrary to their known wishes. He resolved to go home and make a full confession of his fault and ask their forgiveness.

On reaching home he met his sister, several years younger than himself, to whom he told his resolution, and like the loving sister she was, she agreed to go with her brother and ask mother to forgive.

As they came into the house they met their parents just starting out to make some purchases for the house, but when the mother saw the anxious look on the children's faces she willingly waited until John had told the story of his playing truant, and then asked to be forgiven, found as in the case of the Prodigal Son, the parent as willing if not more so, to forgive, than the son was to be forgiven. John was right; it was a good thing to go home for—*to be forgiven.*

A MANLY ANSWER.—All honor to the boy who can not be laughed out of doing right. Five boys, pupils in a boarding-school, were in a room. Four of them, contrary to the rules, engaged in a game of cards. The fifth was not standing and looking on to see how the game would go, but was engaged in a work of his own. It so happened that one of the players was called from the room.

"Come!" said the others to their companion. "It is too bad to have the game stop here in the middle. Come and take his place."

"I do not know one card from another."

"That makes no difference— we will teach you. Come now; do not let our sport be spoiled."

The boy perceived that this was the decisive moment. Ah! just such are the critical points which are sometimes the turning points in life. His resolution was immediately taken. He made no more excuses, but at once planted himself square upon principle.

"My father does not wish me to play cards, and I shall not act contrary to his wishes."

This ended the matter. It established his position among his companions. It compelled their respect, and preserved him from temptation in the future.

A DIGNIFIED BOY.—Col. Samuel Colt was in his lifetime disposed sometimes to be rather pompous. When he was building dwelling-houses for the workmen employed in his great pistol factory, he one day encountered a boy picking up chips on his grounds.

"What are you doing here?" he asked gruffly.

"Picking up chips, sir," replied the youngster evidently unawed by the great presence.

"Perhaps," exclaimed the Colonel, drawing himself up with swelling dignity, "you don't know who I am. I'm Colouel Samuel Colt, and I live in that big house up yonder."

The boy straightened up and swelled out and answered: "Perhaps you don't know who *I* am. I'm Patrick Murphy, and I live in that little shanty down yonder," pointing in the direction.

"Sonny," said the Colonel, blandly, patting the boy on the head, "go on and pick up all the chips you want, and when you get ont come back for more."

THE SPOILED DAY.—It was just one little word that did it all. Madge had sprung out of bed that morning, determined to try to be good; but when Ned happened to spill his coffee on her new dress, she forget her good resolutions, and declared that he was the most provoking fellow in the world. Then Ned grew angry and "answered back," and after that everything went wrong all day, for never a day goes pleasantly that begins with angry words.—*Hearth and Home.*

HOW TO HAVE FUN.—A young lady writes to an exchange giving a receipt for having fun. She says, invite half a dozen boys and girls to your house when your pa and ma are away; put a half-dollar silver piece in a dish of molasses an inch deep in it, and offer it to the boy who gets it with his mouth. The more the boys try to get it, the more fun will there be. That girl surely deserves a diploma.

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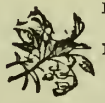
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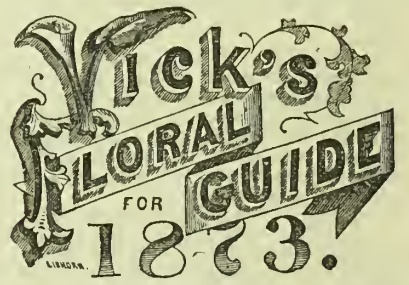
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Forest Trees of Calaveras.

A correspondent of the Calaveras *Chronicle*, says: No less than four hundred square miles of the territory of Calaveras county are timber lands, and their variety, immense growth and superior quality outrivals any county in the State. Two hundred square miles are of immense growth, making a dense forest covered with the best quality of sugar, white, yellow, and gum pines, and would be of great value and add much to the wealth of the county, were they not land-locked and standing beyond the reach of transportation, occupying as they do, the central belt of the snow line of the western Sierras from an altitude of three to five thousand feet.

These species of pine trees grow to a great hight, average from four to ten feet in diameter, and will make from eight to thirty thousand feet of one inch boards to a tree. The clear lumber of the sugar and white pine readily brings fifty dollars per thousand feet in Stockton and Sacramento. A single tree, scaling twenty thousand feet, if transported to either of the above named cities, would bring five hundred dollars.

But the quality of these immense forests is not confined to the softer and easily rifted pines. The red and yellow fir, balsam and black spruce, are equally valuable commercially, and largely predominate in many localities and more especially in the cañons on the south side of the hills and damp, moist flats throughout the snow belt. These species of forest trees are usually tall and straight, and by their natural growth are particularly adapted for round or square timber and long heavy planks for building docks, bridges and expensive wooden structures.

Another most valuable timber is found on the middle Summits, just below the rugged snow peaks. The hight and diameter of the trees fit them admirably for piling and their lasting quality for wood or timber has long been acknowledged by lumbermen as the most valuable timber found on the Sierras.

The superiority of hackmatack over other forest trees is its component parts being nearly solid gum. When green it chops and saws easily; when dry, very hard. For round or square timber it is superior to any other kind and as a wood for making steam is equal to tar barrels.

The white pine is of beautiful rift and a most choice quality of timber. These groves of pines are confined to the rough ridges in the higher levels of snow and form no considerable portion of the timbered belt. The sugar pine mingles to a certain extent throughout the timbered belt, from the alps to the foot-hills, and is found far below the snow line.

The Juniper is a most beautiful evergreen, and is seldom found except in high latitudes. In the Sierra Nevada mountains it is a tree from twenty to thirty feet high, from one to six feet in diameter at the ground, cone shaped and symmetrical, and would be admired as an ornamental tree. In the New England States and in Norway it is a low, flat shrub, and spreads out to twenty feet in diameter and is usually a prolific bearer of the juniper berry.

This species of the forest forms the upper rim of the timbered belt, far above the perpetual snows, and often crowns the peaks of the great backbone. The Juniper has no value except for the immense quantity of berries that may some day become an article of commerce.

The red and yellow fir, are similar in size and hight and quality of timber and are of great commercial value

The oak, as a specialty, predominates. It exteuds from the high peaks down to the sea and is of several kinds. The White Oak is the principal shade tree on the plains and valleys throughout the State; has a short body, long spreading brauches, and is admirably adapted for shade trees. The wood is coarse grained and valuable for fuel, furnishing the principal supply for all the valley towns and cities at the present time.

The red oak is a hard, tight-grained wood, similar to the live oak, and grows in damp lowland swales along the banks of creeks and river bottoms; is from four to six inches in diameter, from twenty to thirty feet high and commands the highest price in market for fuel. The Black Oak, or Indian Bread tree, holds its place as a principal part of the Western forest and predominates throughout the length of California.

It is a hard, tight-grained, beautiful wood for domestic use, and will eventually be of great commercial value. Its demand will increase as the more inferior woods are swept away from the valley foothills; but like the valuable pine timber it is too far away from transportation and will wait the time of the next generation.

The Live Oak is a chance tree; it is found here and there, isolated, confined to no particular climate, soil or location; grows on the banks of rivers and streams; on the side of hills; on damp and dry lands; on rocky and barren cliffs, even from the arid plains to the snow summits. As a useful wood it has little or no value, although sometimes used for wagon making.

Australian farmers appreciate blooded stock. At a recent auction sale in Melbourne, one ram brought £225, and others brought prices ranging from £130, £110, down to £45 each. We have not heard of any of our California bred sheep having ever realized so high a price.

Improvement of Soils by Mechanical Means.

For the purpose of testing the comparative value of the different depths of plowing, an experiment has been begun upon four plats of an acre each, to be cultivated through several years as follows; No. 1 to be plowed to the depth of five inches only. No. 2 to be plowed to the depth of twelve inches. No. 3 to be plowed twenty inches in depth by trench plowing. No. 4 to be plowed twenty inches in depth by subsoiling. In all respects, other than those named; the cultivation is to be uniform on all. Nos. 1 and 2 were cultivated the past summer in the prescribed manner. No. 3 was plowed to the depth of twelve inches only. No. 4. was plowed twelve inches in depth, and subsoiled four inches deeper. The four plats were planted May 15 to early yellow Dent corn, four feet apart each way, three grains to the hill. The following table shows the result of the first year's trials:

Plat 1 yields	55.04 bushels
Plat 2 yields	50.65 bushels
Plat 3 yields	44.95 bushels
Plat 4 yields	42.21 bushels

The yield diminishes from one to four, a result that can not be attributed entirely to the method of cultivation, as for want of a suitable trench plow it was found impossible to plow No. 3 more than twelve inches in depth, so that in all respects the cultivation of Nos. 2 and 3 have been the same, and the plats are adjacent. Plats 3 and 4 will be deepened as fast as is practicable.—*Exchange.*

It is to be regretted that any failure to plow to the proposed depth, plat No. 3 should have been made. Such experiments are exceedingly interesting and useful, but a failure to prosecute them according to the programme proposed is simply unsatisfactory.

Progress in Agriculture — What the Census Shows.

Our increase in all the chief articles of agricultural produce during the last decade, as shown by the census report, is something enormous.

Wine has increased fourteen-fold since 1850, and nearly doubled in the last decade, California being its chief producer.

Hops have increased seven-fold in the same time, and more than doubled in the last ten years, New York growing two-thirds of the whole crop.

Barley has increased six-fold.

Flax has increased six-fold, and flax seed trebled.

Wheat trebled, and oats doubled.

Irish potatoes have increased one-third, and sweet decreased one-half.

Live stock have trebled in value, and now amount to the handsome total of fifteen hundred and twenty-five millions of dollars, or an average of nearly two hundred dollars for every family in the nation.

Animals slaughtered have nearly quadrupled in value, now amounting to four hundred millions of pounds.

Wool has increased from sixty to one hundred millions of pounds.

Cotton is half a million of bales above what it was in 1850, and three-fifths of its amount in 1860.

In only one instance is there a decrease of an important product, and that is in Indian corn, which falls short of the amount in 1860 by seventy-eight million bushels, or ten per cent. of the whole.

In some of the lesser products, however, the decrease is considerable. Silk cocoons are only a third of their former amount; hemp a sixth; peas, beans and rice about a third each. Buckwheat has decreased from seventeen million bushels to nine million, and rye from twenty-one million bushels to sixteen millions.

A Scourge in the French Vineyards.—M. Armand writes very despondingly to the French Academie des Sciences as to the disastrous increase in the ravages made by the philloxera among the French vineyards. He feels persuaded that in a few years time the whole of the vines in Provence will have disappeared, unless some means of destroying the insect is discovered. M. Cornu, who has been despatched into the Bordeaux country by the French Government, to report on the increasing damage caused by this scourge, declares that in nearly all the vineyards which run down to the river banks the plants seem to have dried up, and that the vineyards in other situations have been attacked in such a way that the devastation is circular in shape; whence the expressive name of "oil spots," which indicates that the malady has sprung from the center to the circumference. The philloxera has not confined its attacks to the vine, fruit trees everywhere in the neighborhood have suffered also. It is agreed that as no remedy for the evil has yet been discovered, the wisest plan would be to trace it back to its place of origin, with a view to investigating by what process its excessive multiplication may be prevented.

Bouquets Now and Then—The Increasing Love for Flowers.—Twenty years ago a bouquet of exotics in mid-winter was a rarity that could scarcely be found or purchased. There were private hothouses where a few flowers could be raised during the cold months, but the varieties were limited. Now, no ballroom is complete without flowers; they are so abundant and comparatively inexpensive in winter that they are within the reach of all.

Olive Culture.

The San Diego *Union* furnishes some interesting figures concerning the cultivation of olives in that vicinity. First, as to cost:

Five acres of land at $25 per acre	$125
Cost of erecting windmill and digging trench for irrigating	200
Cost of setting out trees	100
Wages of one man to attend trees six months of each of first two years after setting out	600
Interest and contingent expenses	200
Total cost of five-acre orchard	$1,125

The profits are shown thus:

The average yield per annum of the Mission orchard trees is ninety gallons of green olives to each tree; with ninety trees to the acre (about this number are planted) an annual yield of 8,000 gallons is obtained. Allowing for one-third shrinkage in drying, there are left 5,400 gallons of olives to be pressed, which will yield at the rate of one gallon of oil for every eight gallons of dried olives. At the present price of olive oil (from $4.50 to $5 per gallon), taking the lowest figure, the annual income from an acre of olive trees is found to be $1,912.50.

Cross Breeding of Fishes.—Mr. B. Hanson, of Stavanger, in Norway, has, according to a correspondent of the *London Anthenæum*, accomplished a novel feat in pisciculture by producing a new hybrid species, a cross between *Salmo alpinus* and *Salmo eriox*, the former species spawning four weeks before the latter. Mr. Hanson's manner of bringing together the spawning maturity of the two species is ingenious. When *Salmo alpinus* has been spawning for some time, Mr. Hansou secured a female fish in an interesting condition, and imprisoned her in a perfectly dark tank, where he left her alone. In like manner Mr. Hanson, as soon a possible, secured the sire of the first couple of *Salmo eriox* he found in mature condition for spawning, and put him under a similar arrest, and kept a close watch over both until the time of the sire came. In this manner Mr. Hanson succeeded in rearing, with only a loss of one per cent, in his spawning boxes (supplied from a subterranean well which flows with a uniform temperature of $+5\frac{1}{2}°$ Réaumur all the year round) a new species, which attains full development in four years, and is remarkable for its exceeding vigor and wildness in water, and its palatableness on the table. Mr. Hanson entertains sanguine hopes of this species becoming self-productive in course of time, contrary to all experience of hybrid fish, because he has already caught in his pond several individuals with roe in them."

Comb Manufacture. — An English journal states that the greatest comb manufactory in the world is in Aberdeen, Scotland. There are thirty-six furnaces for preparing horns and tortoise-shell for combs, and no less than one hundred and twenty iron screw presses are continually going in stamping them. Steam-power is employed to cut the combs. The coarse combs are stamped or cut out, two being cut in one piece at a time. The fine dressing combs are cut by fine saws, some as fine as to cut forty teeth in the space of one inch, and revolving five thousand times in the space of one minute. There are some two thousand varieties of combs made, and the aggregate number produced, of all these different kinds, is 8,000,000 annually—a quantity that if laid together lengthwise would extend about seven hundred miles. The annual consumption of ox-horns is about 730,000, and the annual consumption of hoofs amounts to 4,000; the consumption of tortoise-shell and buffalo-horn, although not so large, is correspondingly valuable. A hoof undergoes eleven distinct operations before it becomes a finished comb.

Butchering Young Trees.—Young shade trees on the outskirts of the city are being horribly hacked and butchered by parties who have the cheek to call the operation "pruning." If there is no provision made in the code for the severe punishment of parties guilty of such vandalism, the Commissioners have failed to fulfil their whole duty. The cork-barked elm, naturally a symmetrical tree of sturdy growth, needs but little trimming at any time, and to witness an unskillful operator slashing away right and left with knife and saw among its shapely branches promiscuously, is a species of barbarity and a sacrifice of the beautiful which should be frowned down everywhere. This promiscuous, slashing process to which handsome young trees are too frequently subjected, seems to be done with a view of producing a tree to resemble as nearly as possible a gooseberry bush placed on the end of a long pole. The process is simply tree torture, and the parties executing the miserable work appear to possess about as keen and delicate a sense and appreciation of ordinary good taste and useful art as a pack-mule might be expected to manifest.—*San Joaquin Independent.*

Premiums for Development.—The Virginia *Enterprise* makes the suggestion to the Legislature of Nevada, to offer a bonus of $10,000 to the man or company that produces the first one hundred tons of coal, and the same amount for the first one hundred flasks of quicksilver produced in Nevada; which, it says, is meeting with general approval by the press and people of that State.

Oranges.—The new crop is just coming into market from Los Angeles, but it is reported that the crop on the few trees in this city, Marysville, has been "going off" gradually for a month.

Melange.

A Los Angeles dispatch of the 7th says: The steamer to-day carried the first regular shipment of the season, of oranges, and was loaded with 150 tons of freight from San Pedro, including New York freight shipped to San Francisco, for the Panama steamer of the 17th.

The grandest forest of pine lumber in California, containing white, yellow and sugar pine, cypress and arbor vitæ and other trees valuable for timber, lies between Susan valley and Pitt river.

One hundred and nine bales of hops were raised this season by W. H. Haynie on his ranch on the north side of the American river near Sacramento, and shipped to San Francisco.

A. F. Grisby, of Yonntville, has a Berkshire and Essex pig one year old, weighing 140 pounds, which has five feet, one of its fore legs being divided at the knee into two perfect feet, which the animal uses as nimbly as the others.

A potato was left at the *Alta* office yesterday, grown by John Hayes, on the Cooper ranch, in Castroville, Monterey county, weighing threee pounds and six ounces. A sack of potatoes grown on this farm averages three pounds each.

The Ventura *Signal* says it is common in that vicinity to see grafts or buds inserted in thrifty stocks in February or March producing two or three large well-matured almonds the same season.

It has been discovered by Minnesota farmers that two acres of sun flowers will supply a family with fuel through a long winter. The wood of the stalk and the oil of the seed, it is said, make roaring and cheerful fires.

The Stockton *Republican* hears from Grayson that the rain has been abundant for present purposes in all that portion of the valley west of the San Joaquin river. The farmers of that section are busy now, putting in large crops—a more extensive acreage being sown than ever before. With the ordinary late rains and abundant harvest is now insured without the aid of the irrigating canal.

A field of 18 acres, planted with hops in 1871, in the Merced bottom, yielded 1,500 pounds to the acre last season, and will yield 2,000 hereafter. The prices range from 20 to 60 cents per pound, and are now from 35 to 40, making a total money yield of more than $500 per acre. The expense is from 10 to 12 cents per pound, and as it is mainly in the picking and drying, need not be incurred if the price should fall very low.

Large Granaries.—The Tehama *Independent* of the 16th says:

"We are informed that Dr. Glenn, of Jacinto, is building two granaries at that place. Each building will be 62x500 feet. This is necessary in order to protect the immense amount of grain raised in that vicinity, and which, owing to the boats not coming up the river that far, will have to be stored until there is more water in the river. Dr. Glenn is the owner of sixty square miles of land and his crop of wheat this year amounted to $250,000 bushels."

The Pacific Granary.—Under this caption the New York *Independent* says:

"The Pacific Coast has now become the granary of the country and the Egypt for the world. The wheat crop already exceeds in value the gold crop, and such are the capabilities of the Pacific States that an indefinite supply can be afforded. For years there has been a demand for vessels, which could not be supplied to transport that wheat to foreign countries.

Loss of Wool.—We learn that a number of the wool-growers of Umatilla, Oregon, were heavy losers by the Boston fire, as it seems they had shipped their last year's wool to that city, where it was stored and was destroyed by the fire. Among the heaviest sufferers are Adams, La Grow, Purinton and Swaggart. We have not heard the exact loss of any of these, but we understand that some of them lost all their last years' clip.

Fruit Trees Sprouting.—The fruit trees in Yuba Co. are taking an early start in consequence of the warm weather. New wood is pushing out, having already grown from one to three inches in length. Unless a change in the thermometer occurs soon the fruit buds will begin to put forth. Those who have trimming or transplanting to do will be forced to hurry their work on account of the unusual warm weather.

Plant Trees.—Plant trees in the garden, along the side-walks and roads. A few trees in the bleak pasture will improve the appearance of ranches, as well as serving in time for a grateful shade for the stock in the long, hot days of the dry season. It is a well established fact that trees attract moisture, and everybody knows they add largely to the attractiveness of a place. This is a most favorable time for the work; the ground is warm and moist, and trees set out with ordinary care are bound to grow. Therefore plant trees; plant fruit trees, and in a few years you can raise your own fruit; plant trees for fuel, and your children that come after you will bless your thoughtfulness; plant trees along the highways, and in a few short years you can reap the reward of your industry by a bonus from the Board of Supervisors; plant also, shade trees, and when the infirmities of age come upon you, you can set under your own vine and fig tree, conscious of having done your duty, with none to molest or make you afraid.—*Sutter Banner*

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, M. Jan. 15th, 1873.

Wheat has declined a little since last week, but it is again evincing a firmness and only in milling wheat is there any decline from the price of last week. The great outpour noticed last week still continues.

RECEIPTS.—Since last Monday receipts of Bay produce have come in far more freely than at any other time during the past month—the weather is fine, and in general good prices are attainable. We have received about twice as much Flour as during the previons week, half as much more Wheat, three times as much Barley, Potatoes, and Peas, five times as much Bran, fifteen times as much Onions, etc. At the same time the receipts of Wine and Straw have fallen off.

We summarize receipts of Bay produce to date as 24,332 quarter sacks of Flour; 319,769 centals of Wheat; 8,025 do. of Barley; 813 do. of Oats; 5,255 do. of Potatoes; 1,497 do. of Middlings; 824 do. of Onions; 866 do. of Beans; 24 do. of Peas; 1,617 Hides; 411 bales of Wool; 135 barrels of Chickory; 687 tons of Hay; 55 do. of Straw; 7 centals of Corn; 6,535 gallons of Wine; 125 centals of Buckwheat; 127 tons of Salt; and 100 bags of Peanuts.

Wheat receipts at Oakland Wharf have aggregated 73,400 ceutals or 392 car loads.

The coasting craft have been busy bringing us 5,969 centals of Wheat; 2,156 do. of Barley; 638 do. of Oats; 7,237 do. of Corn; 22,485 do. of Potatoes; 1,336 do of Beans; 640 Hides; 50 centals of Rye; 40 do. of Corn Meal; 20 do of Castor Beans; 287 do of Buckwheat; 93 casks, 52 pipes, 3 barrels, and 1 keg of Wino, aud 1 puncheon of Brandy.

From Portland, the "Ajax" has brought us 1,315 half sacks, and 14,684 quarter sacks of Flour, and 3,494 centals of Oats.

BARLEY.—Barley weakened a little during the week' but is again firm. We note sales of 2,500 sacks of Coast, at $1.27½; 450 do of Coast and Bay, at $1.30; 250 do of Coast, at $1.32½; 300 do of Bay, at $1.40, and 10,000 do of choice at $1.50, with storage free.

FLOUR.—Flour has remained unchanged for the last two or three weeks. There has been an export of 5,000 barrels per "Janet Ferguson" to Queenstown, on the 13th inst.

HAY.—Receipts have been a little in excess of last week. The market remains nearly the same. We note sales of two cargoes of choice at $15.50.

OATS.—There is no change to record in the price of Oats. A shipment of nearly 3,500 centals has arrived during the week from Oregon. We note sales of 1,400 sacks of fair at $2.10; 200 do for Choice at $2.25, and 177 do at $1.27½.

POTATOES.—Humboldt begins to deluge our market again with Potatoes, and we have to chronicle large receipts from the interior. The receipts last week aggregated 27,740 centals, three-fourths from Humboldt. We note sales of 1,200 sacks of Humboldt at $1.10 to $1.20; 400 do of Monterey at $1.15 to $1.25, and 600 of Saliuas at $1.15.

WHEAT.—Over 40,000 centals were received last week in our city and at Oakland—a vast quantity, and one that would exhaust the surplus remaining in the interior in fifteen weeks. Prices have lowered about five cents on the highest grades since last week, but the market is firm. Wheat in Liverpool is for average 12s 3d to 12s 5d. and for Club 12s 9d to 13s. This is a fall of 10c on average Wheat. We note sales of 2,000 sacks of Choice Coast at $1.90; 600 do at $1.92½; 1,300 do of good Shipping at $2; 8,000 do of Choice, with free stowage, at $2.05; 1,000 do of Choice Coast at $2.07½, and 2,500 do at $2.12½.

Exports have been even larger than the previous week, including per "Belvedere" to Cork, 40,408 centals; per "Pearl" to Queenstown, 15,571; per "Carrie Reed" to Cork, 42,873 centals; per the "Oriua" to Liverpool, 28,166 centals; per the "Johanna Maria" to Cork, 7,306 centals; per the "Fortune" to Liverpool, 31,301 centals; per the "Carrick" to Queenstown, 27,124 centals; per the "Janet Ferguson" to Queenstown, 28,800 centals; per the "Glory of the Seas" to Liverpool, 66,000 centals; per the "Frances" to Cork, 15,240 centals; per the "Royal Sovereign to Liverpool 44,817 centals; per "Chevy Chase" to Bristol, 22,305 centals; per "The Solomon" to Queenstown, 22,592 centals; and per the "Velocity" to Cork, 15,240 centals; being a grand total of fifteen cargoes of 408,676 centals, worth $771,699. Freight has again risen, and is now quoted at £3 12s. 6d. per ton.

During the six months, ending Dec. 31st, 1872, the receipts of Wheat aggregated 8,504,779 centals, of which 190 cargoes and 24 shipments were exported, aggregating 5,150,512 centals, worth $8,820,013. About one-half of this was loaded at Vailejo and Oakland, half at the wharves of this city.

WOOL.—Receipts of wool for the year just closed aggregate 28,972,483 lbs. of which 24,255,468 lbs. was California, 1,775,600 Oregon, and 3,541,415 bales foreign. From previous year there remained over 750,000 lbs. The export amounted to 24,278,980 lbs, or more than the whole production of California. This was worth $7,750,000, of this 19,781,107 lbs. left by rail, 2,575,000 was purchased by local factories, and there is now on hand 2,500,000 lbs. We intend publishing a full review of the whole trade for 1872 next week. About 50,000 lbs. changed hands in the city this week.

GENERAL MERCHANDISE.

Both our import and export trade have been active this week. Besides the usual arrivals from coast ports the following vessels have arrived, loaded with iron, chemicals, etc.: The "Loch Doon" from Glasgow, the "Pactolus" from Liverpool, and the "Colombo" from Glasgow; as well as "Ada May" from Mazatlan, the mail steamers "Constitution" and "Costa Rica" from Panama, the "Harvest Queen" from New York, and the "Coloma" from Boston. From Hongkong has arrived the "Kelso" and the mail steamer "Colorado," loaded with Tea, Hemp, and Opium, besides numerous other vessels. Our imports have been carried away in 17 vessels which have principally taken Wheat to Great Britain and Ireland. The value of the week's exports has been $751,749, at which rate we would export to the value of $40,000,000 in 1873.

City Market Report.

DOMESTIC PRODUCE AT WHOLESALE.

SAN FRANCISCO, Wednesday M., Jan. 15, 1873.

FLOUR.

Alviso Mills, bbl.	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 25
Commer'l Mills	4 50	@	6 25
Golden Gate	4 50	@	6 25
Golden Age	4 50	@	6 25
National Mills	4 50	@	6 25
SantaClara Mills	4 50	@	6 25
Genesee Mills	4 50	@	6 25
Oregon	4 50	@	6 25
Vallejo Star	4 50	@	6 25
Venus, Oakland	4 50	@	6 25
Stockton City	4 00	@	6 25
Lombard. Sac	4 50	@	—

BEANS.

Beane sm'l white	3 ½	@	—
do, butter		4¾@	—
do, large, do		5 @	—
do, bayo		3½@	—
do, pink		3¾@	—
Peas		3¾@	—

BROOM CORN.

Per ton		$40@120	

GRAIN, ETC.

Wheat Oal. coast	90	@	2 00
do, shipping	2 10	@	—
do, milling	2 10	@	2 15
do, Oregon	—	@	—
Barley, Dark Ost	1 25	@	1 30
do, Light	—	@	1 35
do, Brewing	1 40	@	1 50
Oats, Coast	2 00	@	2 20
do, Bay	2 20	@	2 25
Corn, White	1 35	@	—
do, Yellow	1 25	@	1 30
Buckwheat	2 00	@	—
Rye	2 00	@	2 25

DAIRY PRODUCE

Butter, Cal. fresh	45	@	50
do, ordinay roll	33	@	40
do, choice	40	@	—
do, new firkin	—	@	—
do, packed	—	@	—
do, New York	35	@	—
Cheese, Cal. new	—	@	—
do, Eastern	15	@	—
Eggs, Cal. fresh	37½	@	40
do, Oregon	37½	@	—
do, Eastern	32½	@	—

FEED.

Bran per ton	25	@	—
Middlings	27½	@	30
Hay	18	@	24
Straw	1	@	
Oil cake meal	35	@	—

FRESH MEAT.

Beef, fr quality	8½	@	—
do, second do	6½	@	—
do, third do	4	@	—
Veal	6	@	8
Mutton	6	@	7
Pork, undressed	5¾	@	6
do, dressed	8	@	8¼

HOPS.

California, 1871, lb	20	@	25
do 1872	37½	@	45

MISCELLANEOUS.

Beeswax, per lb	30	@	35
Honey	10	@	12½
Los Ang. Honey	15	@	20
Onions	2½	@	3
Flaxseed	3	@	—
anary do	4½	@	—
Mustard do, white	1¾	@	—
do, brown	3	@	—
Peas	3 50	@	—
Alfalfa	20	@	25
Ky. Blue Grass	50	@	—
Timothy	18	@	—
Italian Rye	35	@	—
Pirennial do	35	@	—

NUTS.

Peanuts per lb	5	@	7
Pecan nuts	16	@	18
Hickory do	8	@	10
Brazil do	16	@	18
Prince Almonds	16	@	—
Cocanuts, per 1000	15 00	@	—
Alm'ds bird shell	12½	@	15
do, soft	23	@	25

POTATOES.

Sweet, per lb	1	@	—
Humboldt	1 10	@	1 20
Monterey	1 10	@	1 20
Tomales	1	@	—

POULTRY AND GAME.

Live Turkeys lb.	16	@	17
Hens, per dz	9 00	@	10 00
Roosters	9 50	@	10 50
Chickens	5 00	@	6 00
Ducks, tame, doz	12 00	@	14 00
do, Mallard	4 00	@	5 00
Geese, per pair	2 75	@	3 00
Quail, per doz	2 25	@	2 50
Hare, per doz	4 00	@	4 50
Rabbits, per doz	1 00	@	1 50
Larks, per doz	75	@	1 25
Doves, per doz	75	@	1 25
Plover, per doz	2 00	@	2 25
Curlew, per doz	1 50	@	—
Teal, per doz	1 50	@	2 00
Snipe, Eng., doz	1 50	@	3 00
do, small, doz	75	@	1 00
Venison, per lb	8	@	9

PROVISIONS.

Cal. Bacon, per lb	11	@	13
Eastern do	10½	@	12½
do sugared	13½	@	14
Cal. Hams	15	@	—
Eastern do	16½	@	—
Cal. Smoked Beef	11	@	12½

WOOL, ETC.

Choice Northern	22	@	25
Seedy	18	@	22
Burry	12	@	18
Oregon	34½	@	40
Hides, dry	19	@	20
do green	8	@	9
Tallow	8	@	9

FRUIT MARKET.

The mail steamer brought large quantities of orangee and lemons. Apples come in but slowly; good apples bring slightly higher prices. Good eating pears scarce. Dried fruits are not much in demand. California raisins are selling well, and the prospect is that they will stop importation.

FRUIT MARKET.

Mex. Or. per 100	45 00	@	50 00
Limes, per M	25 00	@	—
Au'lnLemons, bx	—	@	—
Messine do., bx	10 00	@	15 00
Bananas, per bunch	3 00	@	—
Pineapples, per dz		@	6
Apples, eat'g, bx	1 00	@	2 00
" Cooking	75	@	1 00
Pears, Eating	1 50	@	3 00
" Cooking	75	@	1 00
Pomegran's, per 100	—		none
Grapes, Mission	—		none
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—

DRIED FRUIT.

Apples, per lb	7	@	8
Pears, per lb	7	@	8
Peaches, per lb	8	@	10
Apricots, per lb	12½	@	—
Plums, per lb	5	@	10
Pitted, do per lb	18	@	20
Raisins, per lb	8	@	10
Black Figs, per lb	8	@	10
White, do	10	@	15

VEGETABLES.

Cabbage, per dz	50	@	60
Garlic, per lb	6	@	—
Green Peas	8	@	10
Green Corn per doz	—	@	—
Marrow at Squash per ton	10 00	@	—
Artichokes, per lb	4	@	5
Tomatoes, L. A.	8	@	15
String Beans, per lb	—	@	—
Lima Beans	—	@	8
Peppers dry	12½	@	15
Okra	35	@	—

GENERAL MERCHANDISE.

BAGS.

Eng, etand. Wh't	15½	@	—
Flour Sacks ½s	16½	@	—
" " ¼s	8½	@	9¼
Stand. Gunnies	16½	@	17
" Wool Sacks	70	@	75
" Barley do	15½	@	—
Hessian 40-in gds	—	@	12½

COFFEE.

Costa Rica per lb	18	@	—
Guatemala	18	@	—
Java	22	@	—
Manilla	16	@	—
Rio		@	—
Ground in cs	22½	@	25
Cbicory	10	@	—

FISH.

Pac. Dry Cod, new			6
hundles	—	@	7
Salmon in bbls	7 50	@	—
do ½ bbls	4 75	@	—
do 2½ lb cans	—	@	—
do 2 lb cans	3 50	@	—
do 1 lb cans	2 50	@	—
Pick. Cod, bbls.	8	@	—
do ½ bbls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, hx	—	@	50
Mack'l, No. 1, ½ bls	—	@	11 00
" Extra	—	@	12 00
" in kits	2 50	@	3 25
" mess	—	@	3 00
" ex. mess	—	@	5 00

NAILS.

Assorted size	—	@	5 75

PAINTS.

Stand. Wh. Lead	—	@	10
Whitening	—	@	3
Chalk	—	@	3
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	10½
Litharge	—	@	10

RICE.

China No. 1, per lb	6¼	@	7
do 2, do.	5¼	@	5¾
Japan	6	@	7
Patna	7	@	7½
Hawaiian	8½	@	9

OILS.

Pacific Glue Co.			
Neat F't No. 1	2 50	@	—
Pure	—	@	—
Cocoa Nut	—	@	—
Olive Pigguiol	—	@	—
do Possel	—	@	—
Palm	—	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	—
Sperm, crude	1 25	@	—
do bleached	2 00	@	—
Coast Whales	37½	@	42½
Polar, crude	—	@	—
Lard	95	@	1 10
Coal, refined Pet	42½	@	45
Oleophine	—	@	—
Devoe's Bril't	45	@	—
Long Island	42½	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	45	@	—

COAL—Jobbing.

Australian	14 00	@	—
Coose & Bel. Bay	12 00	@	—
Seattle	13 00	@	—
Cumberl'd, cks	28 00	@	—
do bulk	23 00	@	—
Chile	—	@	—
Lehigh	22 00	@	—
Liverpool	—	@	—
West Hartley	22 00	@	—
Scotch	16 00	@	—
Scranton	20 00	@	—
Vancouver's Isl.	13 00	@	—
Charcoal	1 00	@	—

SOAP.

Castile, per lb	12½	@	13
Local brands	6	@	7

SPICES.

Allspice, per lb	17	@	—
Cloves	23	@	—
Cassia	30	@	—
Nutmeg	97½	@	—
Whole Pepper	18	@	—
Ground Allspice	—	@	19½
do Cassia	35	@	22
do Cloves	22	@	45
do Mustard	25	@	25
do Ginger	22½	@	27
do Pepper	22½	@	—
do Mace	1 20	@	1 —

SUGAR, ETC.

Cal. Cube per lb	—	@	30
Circle A crushed	—	@	12
do granulated	—	@	12
Golden C	—	@	11½
do Extra	—	@	10½
Hawaiian	20	@	22½
Cal. Syrup in bls	32½	@	35
do in ½ bls	35	@	37½
do in kegs	40	@	45

SALT.

Cal. Bay, per ton	6 50	@	15 00
Carmen Island	14 00	@	15 50
Liverpool fine	24	@	—
do coarse	19 00	@	20 00

TEA.

Oolong, Canton	19	@	25
do Amoy	23	@	50
do Formosa	40	@	80
Imperial Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	78
do Moyune	65	@	50½
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bxs, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

LUMBER MARKET.

CARGO PRICES REDWOOD.

Rough, per M	$20 00
Rough refuse, per M	16 00
Rough clear, per M	32 50
Rough clear refuse, M	22 50
Rustic, per M	35 00
Rustic, refuse, per M	24 00
Surfaced, per M	32 50
Surfaced refuse, per M	22 50
Flooring, per M	30 00
Flooring refuse, per M	20 00
Beaded flooring, per M	32 50
Beaded floor, refuse, per M	22 50
Half-inch Siding, per M	22 50
Half-inch siding, ref. M	16 00
Half inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half inch Battens, M	22 50
Pickets, rough, per M	14 00
Pickets, rough, p'ntd	16 00
Pickets, fancy, p'ntd	22 50
Shingles, per M	3 00

PUGET SOUND PINE—Retail Price.

Rough, per M	$25 00
Flooring and Step, per M	37 50
Flooring, narrow, per M	40 00
Flooring, 2d quality M	30 00
Laths, per M	3 50
Furring, per lineal ft	1c
Rough, per M	$25 00
Rough refuse, per M	20 00

REDWOOD—Retail Price.

Rough Pickets, per M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, per M	30 00
Siding, per M	27 50
Tongued and Grooved, surfaced, per M	40 00
Do do refuse, per M	27 50
Half-inch surfaced, M	30 00
Rustic, per M	42 50
Battens, per lineal foot	1c
Shingles, per M	3 50

San Francisco Retail Market Rates.

WEDNESDAY NOON, Jan. 15, 1873

FRUITS, VEGETABLES, ETC.

Apples and pears remain the same, apples being the most plentiful. Pears are going out. The tomatoes in the market are from Los Angeles. Bulleti & Selna have received four packages, about 350 to 400 pounds, Italian chestnuts by rail, but all have been frosted. Vegetables are still plentiful; the supply is sufficient for our demand. Cauliflower is better now than ever.

Apples, pr lb	5	@	10	Carrots, per doz	20	@	25
Pears, per lb	5	@	12	Celery, per doz	75	@	—
Grapes	6	@	25	Cucumbers, †	—	@	—
Apricots, lb	—	@	—	Tomatoes, per lb	25	@	—
Pine Apples, each	50	@	1 00	Green Peas	15	@	20
Bananas, per doz	75	@	—	String Beans	—	@	—
Cantelenps	—	@	—	Cress, per doz bun	20	@	25
Watermelons	—	@	—	Dried Herbs, lb	35	@	50
Cal. Walnuts, lb	15	@	20	Garlic	—	@	10
Cranberries, per g	—	@	75	Green Corn, doz	—	@	—
Strawberriee, lb,	—	@	—	Lettuce, per doz	25	@	35
Raspberries, lb	—	@	—	Musbrooms, per lb	15	@	50
Gooseberries*	—	@	—	Horseradish, per lb	—	@	20
Cherries, per lb	—	@	—	Okra, dried, per lb	50	@	—
Oranges, per doz	75	@	1 25	do fresh, per lb	—	@	—
Limes, per doz	50	@	—	Pumpkins, per lb	3	@	4
Figs, fresh Cal. *	15	@	—	Parsnips, per doz	—	@	25
Figs, Smyrna, lb	25	@	50	Parsley	15	@	20
Asparagus, lb. *	50	@	60	Pickles, per gal	50	@	75
Artichokes, doz	50	@	1 50	Radishes, doz	25	@	—
Brussel's sprts, *		@	10	Summer Squash	2	@	3
Beets, per doz	25	@	—	Marrowfat, do	2	@	3
Potatoes, New per lb	5	@	6	Hubbard, do	2	@	3
Potatoes, sweet, *	2	@	3	Dry Lima, shl		@	10
Broccoli, per pc	15	@	25	Spinage, per bskt	25	@	—
Cauliflower, †	10	@	20	Salsify, per bunch	10	@	—
Cabbage, per doz	75	@	1 00	Turnips, per doz	—	@	25

POULTRY, GAME, FISH, MEATS, ETC.

The new hams are beginning to arrive, and are sold a couple of cents cheaper than the old ones. Poultry is scarce and getting somewhat dearer. Turkeys are in plentiful supply. Game is rather scarce. In fish, herrings and terrapin are plenty, all other kinds scarce.

Chickens, apiece	87½	@	1 25	Whittaker's	20	@	23
Turkeys, per lb	25	@	—	Johnson's Or	20	@	22½
Mal d & Canv's Bk	1 00	@	1 25	Flounder, per lb		@	37½
Tams, do	1 00	@	1 25	Salmon, per lb	—	@	20
Teal, per doz	—	@	3 00	Smoked, new, *	—	@	—
Geese, wild. pair	—	@	1 00	Pickled, per lb	6	@	—
Tame, per pair	—	@	3 00	Rock Cod, per lb	12½	@	15
Snipe, per doz	3 50	@	—	Cod Fisb, dry, lb	12½	@	—
Quails, per doz	2 50	@	—	Percb, s water, lb	12½	@	—
Pigeons, dom. do	3 00	@	—	Fresh water, lb	15	@	18
Wild, do	—	@	1 25	Lake Big. Trout*	30	@	—
Hares, each	—	@	50	Smelts, large per lb	15	@	18
Rabbits, tamet,	50	@	62½	Small do	12½	@	—
Wild, do, per dz	—	@	2 50	Silver Smelts	—	@	—
Beef, tend, per lb	20	@	25	Soles, per lb	37½	@	—
Corned, per lb	8	@	10	Herring, fresh *	4	@	5
Smoked, per lb	15	@	—	Sm'kd, per 100	—	@	1 00
Pork, rib, etc., lb	—	@	12½	Tomcod, per lb	15	@	—
Chops, do, per lb	15	@	—	Terrapin, per doz	5 00	@	7 00
Veal, per lb	8	@	10	Mackerel, p'k, ea	12½	@	15
Outlet, do	20	@	20	Fresh, do per lb	—	@	—
Mutton chops,*	10	@	15	Sea Bass, per lb	—	@	—
Leg, per lb	—	@	12½	Halibut	50	@	65
Lamb, per lb	18	@	20	Sturgeon, per lb	4	@	5
Tongues, beef, ea	62½	@	1 00	Oysters, per 100	1 00	@	—
Tongues, pig, ea	75	@	1 00	Chesp. per doz	75	@	—
Bacon, Cal., per lb		@	18	Turbot	50	@	—
Oregon, do	18	@	—	Crabs per doz	1 00	@	—
Hams, Cal, per lb	18	@	—	Soft Shell	37½	@	—
Hams, Cross' s co	20	@	23	Shrimps	10	@	—
Choice D'field	20	@	23	Prawns	—	@	1 00
				Sardines	8	@	10

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. per lb	60	@	65	Syrup, S.F. Gol'n	45	@	50
Cheese, Cal., lb	17	@	23	Dried Apples	7½	@	10
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	9	@	10
Flour, ex. fam. bbl	6 00	@	6 25	Dr'd Figs, Cal	9	@	10
Corn Meal. lb	3	@	3½	Dr'd Peaches	8	@	10
Sugar, unc. sh'd	12	@	13	Oils, Kerosene	—	@	50
do lt. brown, lb	9	@	11½	Eggs	—	@	70
Coffee, Sbarboro's family gr'nd, lb			27½	Wines. Old Port	3 50	@	5 00
Coffee, green, lb	18	@	22	do Fr. Claret	1 00	@	1 25
Tea, fine blk	50, 65, 75	@	1 00	do Cal. dz. hot	3 00	@	4 50
Tea, fine st. Jap.	50, 75, 90	@	1 00	Whisky, O.B.J, gal.	3 50	@	5 00
Candles, Admant'e	17	@	25	Fr. Brandy	4 00	@	10 00
Soap, Cal., lb		@	10	Rice, lb	10	@	12½
Can'd Oysters dz.	2 50	@	3 75	Yeast Powders, dz.	1 50	@	2 00

* Per lb. † Per dozen. ¶ Per gallon.

Leather Market Report.

[Reported for the Press by Dolliver & Co.]

SAN FRANCISCO, Wednesday, Jan. 15, 1873.

All kinds of Leather continue firm, French stock having advanced a little, and is still advancing. Local trade still quiet but more promising.

City Tanned Leather, per lb	26@29
Santa Cruz Leather, per lb	26@29
Country Leather, per lb	25@28
Stockton Leather, per lb	26@29
Jodot, 8 Kil., per doz	80 00@
Jodot, 11 to 13 Kil., per doz	85 00@ 85 00
Jodot, second choice, 11 to 16 Kil. per doz	55 00@ 70 00
Lemoine, 16 to 18 Kil, per doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 16 to 19 Kil., per doz	63 00@ 65 00
Cornellian, 12 to 14 Kil., per doz	56 00@ 60 00
Cornell an Females, 14 to 16 Kil	65 00@ 70 00
Ogerau Calf, per doz	54 00@
Simon, 18 Kil., per doz	60 00
Simon, 20 Kil. per doz	65 00
Simon. 24 Kil. per doz	72 00
Robert Calf, 7 and 8 Kil	35 00@ 40 00
French Kips, per lb	1 00@ 1 30
California kip, per doz	55 00 to 70 00
French Sheep, all colors, per doz	8 00@ 15 00
Eastern Calf for Backs, per lb	@ 1 25
Sheep Roans for Topping, all colors, per doz	9 00@ 13 00
Sheep Roans for Linings, per doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, per pair	5 25
Good French Calf Boot Legs, per pair	4 50@ 5 00
French Calf Boot Legs, per pair	4 00
Harness Leather, per lb	30@ 37½
Fair Bridle Leather, per doz	48 00@ 72 00
Skirting Leather, per lb	34@ 37½
Welt Leather, per doz	30 00@ 50 00
Buff Leather, per foot	18@ 23
Wax Side Leather, per foot	20@ 2
Eastern Wax Leather	26

Notice to Farmers and Others.—Skilled plowmen, general farmers, teamsters, laborers, mechanics, servant girls, etc., can be obtained by applying by letter or personally, at CALIFORNIA LABOR AND EMPLOYMENT EXCHANGE, 637 Clay street, extending to 630 Commercial street, San Francisco. 20v4-3m

EXTRA CHOICE EARLY ROSE POTATOES—FOR SEED.—Acknowledged by all to be the best Early Potato. Selected and put up in new, double-sewed gunnies, in fine order for shipping. For sale in lots to suit. Address orders or apply to H. DUTARD, 217 Clay street, San Francisco. de21-1m

AGENTS WANTED.—The new REVOLVER TRAP winds up like a clock. Kills Rats, Gophers, Squirrels, etc. Throws them away and sets itself. One Trap, by Express, for $1; or postpaid, by mail, $1.50. COMBINATION TOOL CO., 124 Nassau street, New York. de14-8t

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, Jan. 15, 1873.

IRON.—			
Scotch Pig Iron, per ton	$50 00	@	55 00
White Pig, per ton	50 00	@	55 00
Refined Bar, bad assortment, per lb	— —	@	— 06
Refined Bar, good assortment, per lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes	9 00	@	
Nail Rod	10½	@	
Norway Iron	9		
Rolled Iron	—		
Other Irons for Blackamiths, Miners, etc.	5½	@	6½
COPPER.—			
Braziers	— 45	@	— 48
Copper Tin'd	— 50	@	— —
O. Nie's Pat	— 55	@	— —
Sheathing, per lb	— —	@	— 45
Sheathing, Yellow	— 38	@	— 40
Sheatbing, Old Yellow	— —	@	— 13
Composition Nails	— 28		— 30
Composition Bolts	— 28		— 30
TIN PLATES.—			
Plates, Charcoal, IX per box	17 00	@	— —
Plates, I C Charcoal	15 00		— —
Roofing Plates	14 00		— —
Banca Tin, Slabs, per lb	— 45		— —
STEEL.—English Cast, per lb	— 20		— 22
Drill	20		— —
Flat Bar	20		— —
Plough Points	16		—17
Russia (for mould boards)	12½		15
ZINC	10		11¾

Annual Meeting.—The Annual Meeting of the STATE AGRICULTURAL SOCIETY for the election of officers for the ensuing year, and for the transaction of other business, will be held at Agricultural Hall, corner of Sixth and M streets

Domestic Economy

English View of Vegetables and Salads.

The *Gardeners' Chronicle*, speaking of vegetables for culinary use, truly says: Neither the one nor the other should be washed until they are just about to be cooked or esten. Even potatoes lose flavor quickly after being washed; so do carrots and turnips; while water will quickly become tainted in snmmer in contact with cauliflowers and cabbages, and thus destroy their freshness and flavor. The case is still worse with salads. If washed at sll, it should be only just before they are dressed, and they should be dried aud dressed immedistely. Nothing rnins the flavor of vegetables, and renders good sslading uneatable, sooner than water hanging about them. If lettuces are quite clean, they make the best salad unwashed; but if washed, the operation should be done quickly, the wster instautly shaken out, and leaves dricd with a clean cloth. But, alas! how often are thev cut and washed in the garden in the morning, and pitched into water in the scullery sink until wanted. Then we are gravely assured that our gardener cannot grow salading like the French! But what French "artiste" would be mad enough to rinse out his salsd juice, then rcchsrge his lettucea and his endives with semi-putrid water? The best practice is simply to remove all superfluons earth by acraping or rubbiug, and all rough tops of leaves by cutting. Enough tender leaves msy bo atill left on cauliflowers and broccoli to overlap the flowers. Salad should be sent iu from the garden with most of the outside leaves and main root on. The tender leaves are easily tainted and injured by exposure, and if the chief root is cut off sharp, much of the juice oozes out at the wound. Where vegetables snd salading have to be bought from a town greeu grocer, the conditions are altogether different. Not only washing, but soaking often becomes requisite to restore something like pristine crispucss.

Washing Coffee.

A correspondent of *Seffell's News* alludes as follows to the washing of coffee, and the necesaity thereof: "I am well aware of the use of machinery for cleaning off the shells, mucilage and other substances, but that is clean dirt. The pulp surrouuding tho coffee proper, or pericarp, in which the coffee is borne, is rotted off in msss, and various modes are resorted to for separating the coffee from the mncilaginous hulls, etc. Such washing is not, however, what I refer to at the preseut time.

I now refer to the washing of *dirty* dirt; for instance, supposing a veasel loading in a foreign port with bales of dry hides, skins, boxes, crates, baskets, etc., and the chinking is done with coffee in bulk, and at tho same time bales of clean coffee aacks are taken into the hold; also, when the vessel arrives at its destination for discharge, the crew walk ashore and the stevedores go on board. The packages are then taken out, the chinking, or coffee, rattles down, and when accumulating sufficient to ahovel up, the bales of new sacks are opened aud filled, snd the clerk of the consignees, with the ink pot, puts in the initial or sign. Then it comes to the eyes of the consumer in style. Now then, many of the crew in the foreign port, in stowing, use tobacco—many stevedores do the same, and are often worse. That's why I wssh coffee.

How to Pluck Poultry.—A *Tribune* correspondent having learued how to pluck poultry easily without scalding—which practice he says is now vetoed by city chicken dealers—gives the following as his plan:

Haug the fowl by the feet by a small cord, then, with a small knife, give one cut scross the upper jaw, opposite the corners of the mouth; after the blood has stopped running a stream, place the poiut of the kuife in the groove in the upper part of the mouth, run the blade up into the hack part of the head, which will cause a quivering and twitching of the muscles; now is your time, for ever feather yields as if by magic, and there is no danger of tearing the most tender chick; before he attempts to flap, you can have him as bare as the day he came out of the egg. The wise ones may discuss the reasons—I only know the effects.

Cider Vinegar.—We hsve often been surprised at the great hsste exhibited by many orchardists to dispose of their cider as soon aa it comes from the mill, when there is no product of the farm that so incresses in valne with age as cider. In the fall of 1870 we bought a barrel of cider for three dollars and put it into a dry cellar with the bung open. There it lay a year, and on examining it, it proved to be good vinegar, and we sold it to a trader for ten dollsrs. There was a net profit of more thsn three hundred per cent. Huudreds of barrels of cider were sold from the town that year at ten centa per gallon, all of which would have sold readily in a year at thirty cents per gallon.—*Maine Farmer.*

Use of Bones for Soup.

If the stock meat happen to be devoid of bone, it is necessary to supply the deficiency; but with the exercise of common forethought there ought to be plenty of bone liquor in every kitchen. It is not simply for its gelatinous quality that bone liquor is desirable, neither is it economical, although in the latter view the saving is not inconsiderable. Bnt bones contsin mineral substances that sre ss essentisl to the strength of the frame as sny other description of nourishmeut. Without these babies get rickets, young ladies get crooked spines, fathers get gouty, and mothers have palpitations—a sad chapter of accidents truly, and all because it is easier to throw bones into the dust hole, or supposed to be more profitsble to sell them to the rag man. Iu order to extract the full amount of value from bones, they should be broken into as many pieces as practicsble, and boiled in a digester for nine hours.

Again, with regard to vegetables. Something beyond an agreeable flavor is given to soup by their addition. Carrots, turnips, etc., contain a large quantity of potash, by the exclusion of which from our food it would be easy to create unsightly skin complaints. On this account the water in which such vegetables are boiled should not be thrown down the sink.—*Ohio Farmer.*

Fried Sweet Potatoes.—Take as msny sweet potatoea of moderate size as will be required for a meal, pare them, and cut them lengthwise, iuto say six or eight pieces. Have a pan of boiling lard ready into which put the sliced potatoea raw. When brown, turn them into a colander, and place in a hot oven to drain. The lard must be kept fully up to the boiling point, in order to have the slices nicely browned. Serve up hot and est with butter. They are auperlatively good. The same method can be used for Irish potatoes.

How to Prepare Turnips for Dinner.—Take of good turnips and potatoes enough to make two quarta of each, after being pealed and cnt. Two or three pounds of freah beef or pork of medium fatness, should be boiled for an hour. to which the tnrnips and potatoes are to be added; boil the whole half an hour longer, then add half a tescup of both sugar and flour, and boil five minutes longer. When done they ought to be mashed aame as usual. Mrs. S.

Custard Pie.—Take the yolks of three eggs, two tablespoonfuls of sugar and one of flour, beat hard; then flavor, and add two teacupfuls of milk, and bake. To the whites of three egga, beateu to a stiff froth, add two tablespoonfuls of sugar, and flavor. When the pie is done, spread evenly over it and set in the oven for a few minutes.

Corn Griddle-Cakes.—Take two cups corn meal and one cup wheat flour, mix with sour milk or buttermilk till it is a thin batter; add soda sufficient to neutralize the acid of the milk, a little salt, and three well-beaten eggs. Very much of the excellence of corn bresd and cakes depends on the freshness of the meal; if immediately from the grist-mill it is much sweeter than after it has stood awhile.

To Fry Muah.—Hsve a pan of boiling lard resdy, slice your mush half an inch thick, flour it ou both sides and put it into the boiling lard. By this means the slices will be browned eveuly all over; and besidea, if allowed to drain in a colsnder plsced in a warm oven, will come to the table entirely free from the disagreeable fatty taste peculiar to this dish when fried in the usual way. Serve up hot.

To Prepare Celery.—Cut off the leaves, and cut the stock into pieces two inches long; boil it in a little water ten minutes, and then add a piece of butter rolled in flour. Add aalt and pepper. If you wish it richer, boil the celery in a little veal gravy, add cream, besten eggs, nutmeg and a bit of butter.

Potato Custard for Pastry.—A cupfnl of mashed potatoes, four eggs, as mnch sugar ss you like, enough milk to mix it, and flavor with essence of lemon.

Winter in the Sunny South.—It was not only in the Northern states of the Repnblic that the recent touch of winter was severely felt. North of the Potomac and Ohio the thermometer ranged from teu to forty degreea below zero for several days last week and most portions of that region were visited by severe snow storms that impeded all travel whether by common conveysnce or by railrosd; but the semi-tropical portion of the country also got a rough touch of winter such as it seldom experiences. So severe was the cold that the Mississippi was frozen over at Memphis; and in many of the Southern cities rides were enjoyed upon improvised sleighs and aleda. But when the ice broke up in the Ohio snd Mississippi and came rnshing down the swift current in accumulated masses, it swept the shores with terrible effect, crushing steam boats, wharves, warehouses aud other structures in its course, damaging aud destroying property to the amouut of millions.—*Contra Costa Gazette.*

Bees do not like bad breaths, especially whisky breatha. Those having whisky on the breath, who do not believe this, should go near a hive of bees and see how it is for themselves.

Floriculture.

How the Fuchsia Acquired Celebrity.

The New York *Tribune* relates the following pleasant story sbout the first fuchsia:

Old Mr. Lee, a nurserymsn and gsrdener near London, well known fifty or sixty years sgo, was one day showing his vsriegated treasures to a friend, who suddenly turned to him and declared, "Well, you hsve not in your collection a prettier flower than I saw this morning at Wapping." "No, snd pray whst was this phœnix like?" "Why, the plant was elegant, and the flowers hung in rows like tassels from the pendant branches, their colors the richest crimson; in the center a fold of deep purplo," snd so forth. Particular directions being demsnded and given, Mr. Lee posted off to the place, where he st once perceived that the plsnt was new in this part of the world. He ssw and sdmired. Entering the house, he said, "My good woman, this is a nice plant, I should like to buy it." "Ah, sir, I could not sell it for no money, for it was brought me from the West Indiea by my husband, who has now left again, and I must keep it for his sake." "But I must have it." "No, sir!" "Here," emptying his pockets, "here is gold, silver, copper;" (hia stock was something more thsn eight guineas). "Well-a-day, but this is a power of money, sure and sure!" "'Tis yours, and the plant is mine; and, my good dame, you ahall have one of the first young ones I rear, to keep for your husband'a sake."

A coach was called, in which was safely deposited our florist and his seemingly dear purchase. His first work was to pull off and ntterly destroy every vestige of blossom and blosaom-bud; it wss divided into cuttings, which were forced into bark-beds and hot-beds, were re-divided and snb-divided. Every effort was used to multiply the plant. By the commencemeut of the next flowering season Mr. Lee was the delighted possessor of three hundred fuchsia plants, sll giving promise of blossom. The two which opened first were removed into his show-house. A lady came: "Why, Mr. Lee, where did you get this charming flower?" "'tis a new thing, my lady—pretty, is it not?" "Pretty! 'tis lovely. Its price?" "A guinea. Thank your ladyship;" and one of the two plauts atood proudly in her ladyahip's boudoir. "My dear Charlotte! where did you get that elegant flower?" "Oh, 'tis a new thing; Isaw it at old Lee's; pretty, is it not?" "Pretty! 'tis beautiful! Its price?" "A guinea; there was another left." The visitors' horaes amoked off to the suburb; a third flowering plant stood ou the spot whence the first had been taken. The second guinea was paid, and the second chosen fuchsia adorned the drawing-room of her second ladyship.

The scene was repeated, as new comers saw and were attracted by the beauty of the plant. New chariots flew to the gates of old Lee's nursery ground. Two fuchias, young, graceful, and bursting into healthful flower, were constantly aeen on the same apot in his repository. He neglected uot to gladden the faithful sailor's wife by the promiaed gift; but ere the flower season closed 300 golden guiueaa clinked in his purse, the produce of the aingle shrub from the window in Wapping; the reward of the taste, decision, skill and perseverance of old Mr. Leo.

How the Rose of Sharon is Propagated.—The Rose of Sharon is oue of the most exquisite flowera in shape and hue. Ita blossoms are bell-shaped, of many mingled hnes and dyes, and its hiatory is romantic in the highest degree. In the East, throughout Syria, Judea aud Arabia, it ia regarded with the profoundeat reverence. The leavcs that encircle the round blossom dry, and close tight together, when the season of blossom is over, and the stock withering completely away from the atem, the flower is blown away at last from the bush on which it grew, having dried up in the shape of a ball, which is carried by the sports of the breeze to great distances. In this way it is borne over the sandy wastes and deserts, until at last, touching some moist place, it clings to the soil, where it immediately takes fresh roots and aprings to life and beauty. For this very reason the Orientsls have adopted it ss the emblem of the resurrection. The dried flowers are placed by the Judeana in a vasc of water beside the bedside of the sick, and if it expands by moisture, the omen is considered favorable. If it doea uot, the worat at all times is feared.

Cut Flowers.—In cutting flowers for vases or bouquets it is never well to break them abruptly from the stems, bnt cut them off with scissors or a knife—the latter being the best, as it is less likely to injure the minute pores or tubes of the stems which draw np the moisture needed to nourish the flower. If they are gathered while wet with dew, they will keep longer thau if cut wheu the sun ahines hotly upon them. If it is desired to keep them a great while, a pinch of saltpetre and of common salt added to the water will prevent their decay, and also remove all unpleasant odors from the stems. Boiling water turned upon the stems of faded flower and sllowed to stand upon them until completely cool, will freqnently restore them to freshuess. Cut off the stalka for half an inch or so before putting them into cool water, which should not be icy cold.

Everlasting Flowers.

The immortelles of the east (*Helichrysum orientales.*) This plsnt, s native of Asis, hss been known in Europe since 1629, but was only first cultivated in gsrdens about 1815. Its flowers, the symbols of friendship, or tribute to talent snd genius, serve to mske the garlands of immortelles which ornament the tombs of the desd in Roman Catholic countries. It is cultivsted in France, in the communes of Lower Provence, where the soil slopes towards the Mediterranesn. It succeeds very well in the slopea of Bandols snd Ciota, which are exposed to the south and enclosed by wslls of stone. It blossoms about the month of June. It suffers from hoavy snd continuous rsins and strong dews, snd only vegetates well on light soils, stony and permesble. It is propagated by offsets, which are scparsted from the old stocks. The gathering of the flowers is made in the first days of June, before the bursting of the buds. As the flowers which are insufficiently formed or too full blown are rejected by the trade, it is important not to cut the stems either too soon or too late. The collection is msde by women, who tie them in smsll bundles, which are ordinarily dried on the walls of the enclosure. Finally, young girls are employed to remove the down which covers the ramifications. A kilogramme by weight of these plsnts contains abont 400 stems, each one containing about 20 flowers. Each growing tuft of immortelles produces 60 or 70 atems, bearing from 20 to 30 flowers. A hectare will contain 40,000 tufts, producing annually 2,400,000 to 2,800,000 atems, yielding 16,000 to 20,000 bundles, or 5,000 to 6,000 kilogrammes in weight of immortelles. A piece of ground well laid out and attended to will produce for eight or ten yeara. The flowers are sold in packets or by weight. The bundle sells at from 1½d to 3d; the 100 kilogrammes for from 30 to 45 francs. The immortellea are sent off in cases contsining 100 bnnches or packages systemsticslly arranged. They are sometimes aold dyed black, green or crimson red. The lsst shade is very handsome, and most in vogue in the aouthern countries. It is obtained by a solution of borax. The natural flowers and those dyed black are usod for coronals for tomba. Those dyed crimson or green are associated with natural flowers in bouquets, or worn at the button-hole.—*Gustave Henge.*

A Floral Curiosity.—A wonderful flower is described as existing at Constantinople, belonging to the narcissus family of bulbs. There were three naked flowers on the atalk hanging on one aide; the underneath one was fading, while the two others were in all their beauty. They represented a perfect hnmming bird. The breaat of bright emerald green, is a complete copy of this bird, and the throat, head, beak, snd eyes, sre a most perfect imitation. The hinder part of the body and the two ontstretched wings are a bright rose color, one might almost ssy fleah colored. On the abdomen rests the propagstion appsratua, of a deep, dark brown tint, in form like a two-winged gad-fly.

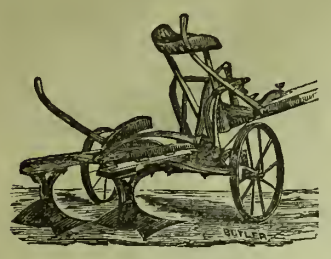
The Diadem Pinks.—No flower novelty introduced in the past ten years has given so mnch delight as the diadem pink. At first aome tronble wss experienced from mixed seeds and sorts nntrue to name, but now propagatora have obtained a strain of trne character, and the bloom of perfect planta is unequaled for its brilliancy by any other plant in the flower-garden. The diadem pink is a flower that is so eminently worthy of culture in every garden, we can recommend it for general trisl. With us it haa done exceedingly well on light, warm soil. They will bear considerable manure, applied well-rotted in either the fall or spring. The samo treatment given to sweet-williams will produce good blooma of this also.—*Ex.*

How to Train Fuchsias.—When a slip has grown six or eight inches high, pinch out the top down to the last set of leaves. It will then throw out branches on each side. Let theae grow eight or ten inches, then pinch out as before; again pinch the tops of each branch, when grown the aame hight as the othera. Procnre a stick the size of your finger, eighteen inches in length; take a hoopskirt wire, twine back and forth alternately throngh holes made in the stick equal distances spart; place this firmly in the pot back of the plant, tie the branches to it, and you will have, when in flower, a beautiful and very graceful plsnt.

The Rose on the Lawn.—An English journal saya: Few persons are aware of the magnitude to which the rose may be grown, or the splendid effect it may be made to produce on a lawn or pleasure ground; yet with a sufficiently strong stem, and a system of patient and careful training, there can be no reasonsble doubt bnt that the standard roses can be grown to the size and form of the ordinary examples of the weeping ash, having the branches all produced from the top of a single stem, and flowing downward npon all sides—a very ornamental object for the lawn.

Cellar Gardening—Curious Results.—The *Florist and Pomologist* says that from aome experiments recently made by Dr. R. McDonald, of Dubliu, it was ascertained that, of a series of hyacinths flowered in a perfectly dark cellar, the green lesvea were thoroughly blanched; while the flowera of the red variety became quite white, those of the yellow partisslly so, bnt violet-blue sorts were nnaffected.

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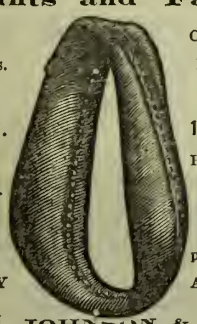


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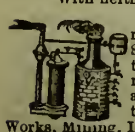
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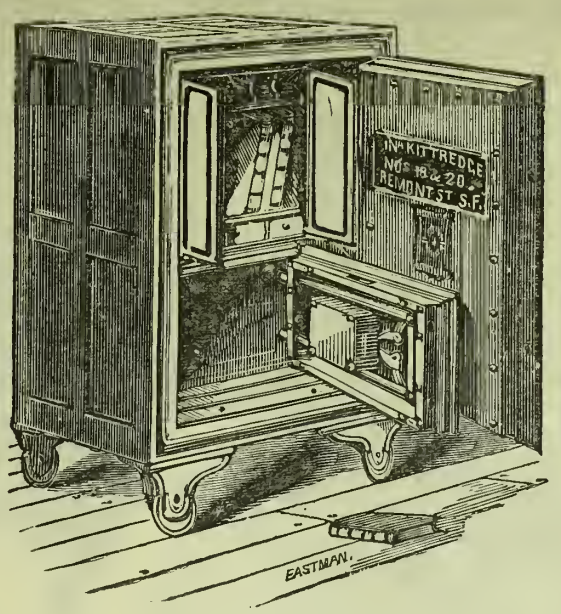
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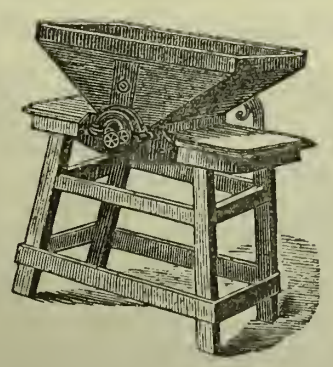
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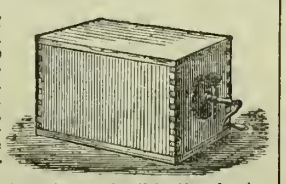
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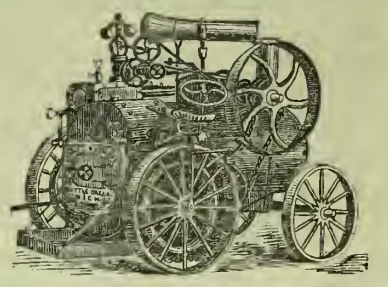
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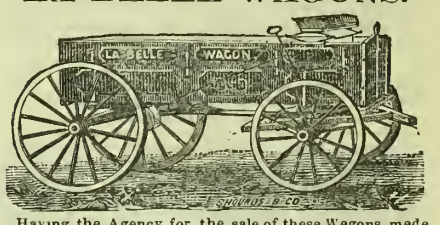
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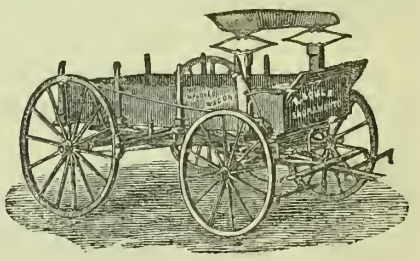
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☞ Our friends and customers residing in the country will find it for their advantage to order from us. Goods sent by Express to any part of the United States.

Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

Business Cards.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. 519 Sansome street, S. F. All orders promptly attended to. 3v5

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Common Furniture, Bedding and Upholstery Goods, No. 725 Market street (Bancroft's Building), San Francisco. 3v5

Jacob Schreiber, Dealer in Live Geese Feathers. Furniture Springs. Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco. 3v5

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco. 3v5

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Descended from stock weighing 62 lbs. to the pair—Premium Birds of N. Y. State Poultry Society.
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—AND—

Wine and Brandy Manufacturers' ASSOCIATION.

Will meet in Masonic Hall, corner K and Sixth streets, Sacramento, Monday, January 20th, 1873 at 2 o'clock P. M.

Duplicates of Wines and Brandies exhibited at last Fair will be examined, the Premiums then awarded announced and paid, the Premium List for next year agreed on, provision made for exhibition of our grape products at Vienna, steps taken to secure proper reduction of National Taxes, Essays read on various subjects of interest to the industry, and such other business as may come before the meeting transacted. The meeting will be continued from day to day so long as necessary. By order.

I. N. HOAG, Secretary.

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New Cantatas! Oratorios! Anthems!

New and attractive Cantatas.

Forty-Sixth Psalm	Dudley Buck.	$1.00
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Well worthy of careful study.

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An amusing and very melodious musical extravaganza.

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Fine effective compositions.

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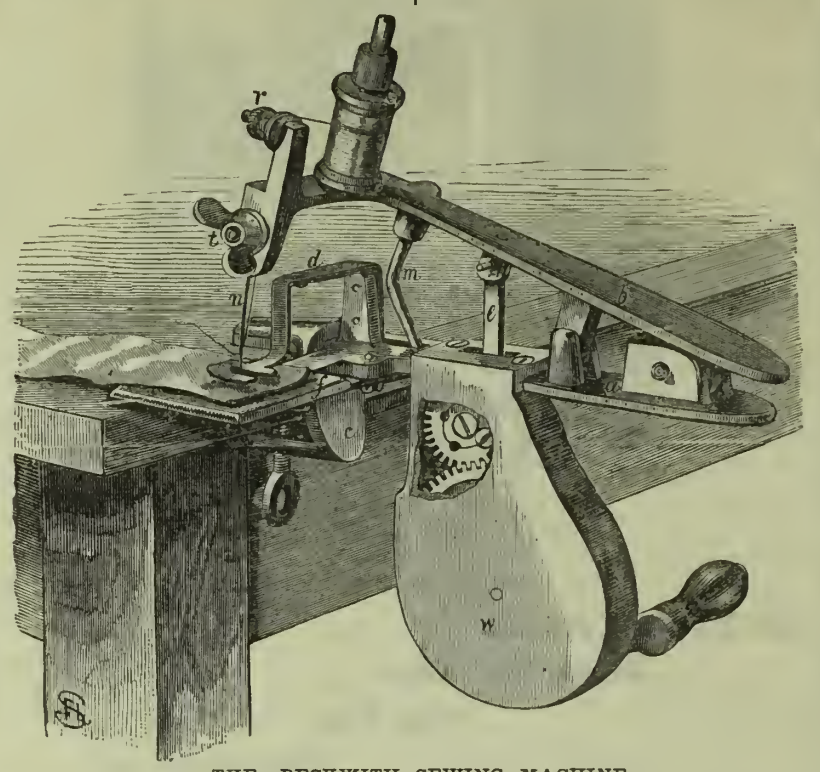
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Valuable Premiums for Subscriptions.

[Publishers' Business Notice.]

A Sewing Machine Given Free, with $40 Worth of Subscriptions.



THE BECKWITH SEWING MACHINE.

Our object in giving an illustration of this machine is partly to secure the attention of the reader to the following facts: First, that it is in its way the best sewing machine in existence; and secondly, because we propose to offer it at a very low rate to the public as an inducement to subscribe to the Press.

In proof of the high estimation in which this machine is held at the East, we copy the following from the *Scientific American*:

"To make a very cheap sewing machine has been the aim of many inventors. To make a very cheap and also a good one has been sought by some, but few have been successful in combining the two advantages of small cost and great utility. We, however, exhibit in the accompanying engraving one that possesses the utility of more costly machines, while it is furnished at a price below anything we have had of the kind that can perform the same work in as complete a manner. It is capable, as we have proved by operating it, of doing plain seaming, hemming, stitching, embroidering, and in short, most of the sewing done in families.

The American *Agriculturist* in speaking of this machine says:

We are prepared to indorse the Beckwith Sewing Machine as one worthy of being at once secured by all who cannot purchase the expensive machines; and, as will be seen below, many of those who have the larger machines will want this one in addition. Here are some of the advantages of the Beckwith machine:

1st. It is well and strongly made, and thoroughly electro-plated with nickel throughout, by the new process, which is decidedly superior to the usual thin silver-plating, as it is far more durable, and does not tarnish. It is simple in its parts, and its use quickly learned, and runs so easily that a child can work it.

2d. It is easily attached to any table or stand having a leaf or edge projecting an inch or so, and can thus be used in any part of the house, near a window, etc. It is so light and portable that a lady can carry it with her in a reticule when visiting or on a journey, ready for use at any moment. It is so convenient in this respect that it will be a useful addition where other machines are used, either for carrying to different rooms, or when two wish to sew at the same time. It is applicable for almost all kinds of family sewing.

3d. It makes the elastic loop-stitch (the same as the Wilcox & Gibbs and some other good machines), which with a little care in making the closing stitch, is abundantly strong for nearly all kinds of sewing, and less liable to break in washing and wearing, owing to its elasticity. It has the advantage that the stitch can be removed when desired. Those who have lock-stitch machines, will find this stitch more convenient for many kinds of sewing, for embroidering, etc. Many contend that the elastic loop-stitch is more durable.—*Pacific Rural Press, Dec.* 28, 1872.

The foregoing should be satisfactory evidence of the value of the machine and the work it can do. And now we have made such arrangements with Messrs. M'Lellan & Fitch, General Agents, Alameda, Cal., that we are enabled to offer to patrons of the Press a really desirable premium for their subscriptions. In the way of this little wonder worker and saver of time, labor and money. It may be seen and operated at the Press office, 338 Montgomery street, between 10 and 11 A. M. and 2 and 3 P. M. The lowest retail price of the Improved Beckwith Sewing Machine is $12. Now

WE WILL GIVE

For $12, a Machine and the Illustrated Press, 1 year.
For $12, a Machine and the Mining & Scientific Press, 6 mos.
For $12, a Machine and the Pacific Rural Press, 6 mos.
For $13.50, a Machine and the Mining & Scientific Press, 1 yr.
For $13.50, a Machine and the Pacific Rural Press, 1 year.

For $40, we will give a Machine and $40 worth of subscriptions to either paper or all jointly.

Express charges must be paid by the purchaser. Address, for further particulars, the PUBLISHERS OF THIS JOURNAL.

THE PACIFIC RURAL PRESS has the largest circulation of any weekly journal published west of the Rocky Mountains, independent of a daily issue. Its readers are prominent among the most intelligent, industrious and thrifty classes throughout the Pacific States and Territories.

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Trees, Plants, Roots, Etc.,

For Sale at Wholesale or Retail by

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100 Barrels Guano for Sale,

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PURE BLOOD

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ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all part of the State. For particulars address

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Breeders and Importers of the
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THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.
THOS. BUTTERFIELD & SON,
I9v4-tf Hollister, Monterey County, Cal.

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FOR SALE,

TO RENT,

OR ON SHARES?

The CALIFORNIA LABOR AND EMPLOYMENT EXchange, having ample opportunities to dispose of farms or business places to the many immigrants who daily arrive in California, and whose first steps are invariably directed toward this institution, has opened a Land Department in connection with its Labor and Employment office.

Parties having farms or business places for sale will do well to send the fullest particulars to

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In Harrison's Nursery, one Mile below Sutterville, on the Riverside Road.

My stock of Trees is of the most desirable varieties, well grown, and cannot fail to please PLANTERS and DEALERS, both as to STYLE and PRICE. Trees carefully packed and delivered to the cars and boats, also to all parts of the city, without additional charge. Examine Trees at Nursery, or address
J. S. HARRISON, Ninth Street,
jan18-1m Between M and N, Sacramento.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETTS, for sale at LOWEST RATES. Orders may be addressed through Dewey & Co., of the Rural Press, Drake & Emerson, No. 521 Sansome street, San Francisco, Robt. Williamson, Capital Nurserice, Sacramento, or to me, CALVERT T. BIRD,
3v5-2m San Jose, Cal.

BREEDERS OF DURHAM CATTLE.

The California Short Horn Durham Breeders' Convention will meet, pursuant to adjournment, at the GRAND HOTEL, in the city of San Francisco, on the Evening of the first Monday of February, 1873, at eight o'clock, for the completion of their organization, and other business. All breeders of these cattle and their grades are respectfully invited to attend.
ja18-3t G. N. SWEZY, Secretary.

10,000 AUSTRALIAN GUM TREES,

Including all varieties—OUT-DOOR grown, healthy and strong. In good condition for transplanting and transportation. For sale at $5 to $10 per 100. Grown at Fitchburg, between Alameda and San Leandro.
Address, HENRY S. FITCH,
3v5-2m 506 Montgomery Street.

Seeds! Seeds!!

By W. R. STRONG,

8 and 10 J St., SACRAMENTO.

My stock of Seeds this season is larger and in greater variety than can be found elsewhere on the Pacific Slope, and of the last season's growth.

Garden, Flower and Field Seeds;

ALSO,

FRUIT, SHADE, FOREST and EVERGREEN TREE and SHRUB SEED.

Trees and Tree Seedlings, Fruit, Timber and Ornamental, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will be mailed free for one year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

Vick's Flower Seeds, Bulbs, Chromos and catalogues on hand and supplied at strictly low rates.

Seeds and small seedlings forwarded by mail to any part of the United States. My catalogues are now ready, and furnished free on application. [3v5-2m

FRUIT AND ORNAMENTAL TREES.

Glen Gardens, one Mile east of Sacramento.

My stock embraces all the most desirable varieties known, including several new Peaches imported from England, among which are the Early Beatrice, Early Louise and Early Rivers—all earlier than Hale's—the Beatrice undoubtedly reaching the practical limit to earliness, being twenty days earlier than Hale's.

For late varieties I have the Salway (the premium Peach at the State Fair), and the Freemason, the most valuable late Peaches in cultivation.

Blackberry, Raspberry and Strawberry Plants, all at the lowest market prices for cash.
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HAVE YOU A FARM

FOR SALE,

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The CALIFORNIA LABOR AND EMPLOYMENT EXchange, having ample opportunities to dispose of farms or business places to the many immigrants who daily arrive in California, and whose first steps are invariably directed toward this institution, has opened a Land Department in connection with its Labor and Employment office.

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"Male and Female Labor sent to all parts of the country." 17v4-2am3m

NOTICE.

FARMERS AND DAIRYMEN—Send us your orders. We have constantly on hand Male and Female help of all kinds. Lumbermen, Woodchoppers, Milkers, and Men and Women for all kinds of work, await your orders. All orders from the country receive our personal attention, and will be filled promptly and as desired. Real estate bought and sold at short notice. All sales of land or property negotiated satisfactorily.
GATES & CO.,
ja18-1m 116 Kearny St., San Francisco, Cal.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JANUARY 25, 1873. [Number 4.

Fish Culture.

In our last week's issue we placed the trout at the head of the list of fresh water fishes for domestication and profit to the fish culturist. In continuing the subject it may be well to state that, however pleasing the prospect of successful trout culture may be to those desirous of engaging in it for pastime or profit, the result will depend upon the fitness of locality and quality of water at command for the purpose; for to attempt the business without this requisite is a loss of time and money.

In our directions we are guided by the instructions of that veteran trout culturist Livingston Stone and not by any experience of our own. He says be sure there will *always* be water *enough* for your purpose. To decide upon this, you must be guided by the amount of water flowing in the hottest week of the dryest time in summer. This is your guide: The stream or spring is worth no more than what it will do at its very warmest and lowest time.

Therefore, when you select your brook, either see it yourself in its dryest state or take the testimony of some person who has seen it thus, and if from what you see or hear you are led to believe that it is possible for the supply of water to become insufficient, have nothing to do with it. Be sure that no freshets which can carry away or overflow your works are possible.

Brooks subject to moderate freshets that can be controlled are not necessarily objectionable; but a brook where the freshet cannot be wholly guarded against is a delusion and a snare and ought to be utterly avoided. Be sure that the water does not heat up in the summer to an unwholesome point. Many brooks which have the appearance of perfect trout streams are worthless from becoming too warm in summer. Here also the test should be the hottest day of the dryest time. For it should be remembered that one day of freshet, drouth, or intense heat may do as much mischief, in taking away your trout, as six months of the same might do.

Waters otherwise suitable, which are most to be dreaded, are outlets of shallow ponds or lakes. These waters though perennial and of even flow, and fed by springs, may yet, from too much exposure to sun or air, be wholly unfit to keep trout alive, by reason of their temperature rising too high. It is safe to say that slugglish, flat water at 70° is dangerous, if not fatal to trout; while they will live in vigorous, rapid water which occasionally runs up to 80°; but 85° is fatal to them in all kinds of water.

Be snre that the water you select is intrinsically favorable to trout. Be very careful about using any brook or spring which can possibly receive the discharge of a tannery or mill or drainage discharging any poisonous substance. A very good guide is this; if it is not a natural trout brook, or has not been one, be very shy of it; for there is some good cause why trout do not inhabit it, and the cause is probably to be found in the unsuitableness of the water.

It is no objection to a stream where trout are *raised* that it is occasionally turbid or even muddy. Such water, though injurious to eggs, is wholesome and beneficial to the fully formed fish of sll ages. It is always a good precaution, where a stream is to be used which has no trout in it naturally, to put in a few and keep them there the year round and see how it suits them, before adopting it fully as a trout-breeding water.

There is some conflict of opinion about the comparative value of spring and brook water for raising trout. All things considered, spring water is the best for hatching, and brook water is the best for raising trout. We think we have said sufficiently on this head to deter many from the pursuit to which they have perhaps given considerable thought, with a view of engaging in it; finding that their water supply is inadequate, or its quality quite unsuited to the purpose; whilst others may have had their hopes of a successful culture of trout strengthened by finding that they possess fully the first indispensable requisite. The subject will be continued.



ON A RAFT IN MID-OCEAN.

Ocean Casualties.

While in California we are basking in the sunshine of an almost cloudless and frostless winter, without one flake of snow in all her great valleys, and the ocean that laves our western border is hardly ruffled by a breeze, the papers from abroad are teeming with accounts of terrible suffering from the frost and snow and storm and tempest around the Eastern homes of our people, and of disaster by shipwreck all along the European shores of the Atlantic, accompanied by loss of life and property almost unprecedented.

In striking contrast with the pleasures of home in our happy and beautiful land and climate, we introduce the accompanying engraving, simply as a fancy sketch, illustrative of some of the sufferings of those who make their homes upon the ocean—

"For who would dwell on the rolling sea
When he might live on land, on solid land!"

Profitable Farming.

There is a science in farming as well as in every other pursuit. To make farming profitable, the science of farming ought to be understood. There are very many that cultivate the soil who find it unremunerative, simply because they do not practice a scientific agriculture; in other words they lack system in their general management. The pursuit of agriculture is a noble one when rightly practiced; but to make it such requires the exercise of mind as well as muscle.

Anybody can hold a plow or drive a herd of cattle from one pasture to another; but to attain to scientific snd systematic farming we must read, study and reduce to practice, the experience and practice of others, studying to avoid their errors. Show us a man who hss risen to eminence in his profession, and makes that profession pay, and we will show you a man who has made study and deep research a business, and that these have earned him his high reputation and well filled coffers.

The same with the successful merchant; his earnest attention to business, his systematic management and prudent forethought, have made him rich. The skillful mechanic, who commands high wages and stesdy employment, will tell you that it is simply the result of years of scientific and careful application of labor and thought during his apprenticeship or term of service at low wages. It is evident from these comparisons that knowledge is necessary in order to conduct any business with honor and profit.

Look around among those who say that "farming don't pay," and you will find them of that class who think that money paid for an agriculturs1 paper is only thrown away, and that to devote a few hours to studying the nature of the soil they profess to till is so much time lost; because say they, the ideas and suggestions of books and papers are only theoretical, and cannot be put in practice.

To all those farmers whose ideas are so contracted, whose reasoning powers sre so rusted, we would say, you can make it profitable to cultivate your minds as well as your fields, for in so doing you can cultivate your fields all the better; you will find true worldly wisdom in it, for it will enable you to conduct your farms more systematically and profitably; become members of Farmers' Clubs, take part in the discussions, or if only listening to the opinions of others you will find it a source of interest and profit, that will eventually make your farming profitable.

THE POTATO DISEASE. — Should the disease that has for msny years been so destructive to the potato crop in the Atlantic States and Europe, ever reach us to our injury, it is said that the tan-waste—the residue of the bark which tanners take out of the tan-pits after it has lost its efficiency as a tanning material—is a perfect antidote. A small quantity put in each hill, when the potato is planted, entirely prevents the appearance of the disease.

GOLDEN GATE PARK.—As showing the appreciation of our citizens in the improvements in progress in our Golden Gate Park, we state from positive and reliable information, that over fifteen hundred carriages occupied by from one to six persons each, visited the grounds during last Sunday, Jan. 19th.

FLORAL AND VEGETABLE ESSENCES FOR PERFUME.—Nearly all the essences employed in perfumery are of European production; and yet there are men in obscure places in the United States who have made modest fortunes producing these essences. It will come to pass that we shall pay more attention to such productions when we learn that there is profit in something else beside vegetables, fruits, and grains. This is the way the manufacture of these essences are distributed in Europe:—England produces lavender and peppermint largely. At Nismes attention is given to rosemary, thyme and lavender. Nice, makes violet its specialty. Cannes extracts the essences of the rose, the yellow acacia, the jasmine, and neroli. Sicily furnishes citron and orange; Italy, iris and bergamot.

A SUBSTANCE called "naphaline" occurs in large quantities in the waste of gas-works, and has always been rejected as worthless. Prof. Asa Gray has discovered that it is an admirable substitute for camphor as a protection against moths and other insects.

CALIFORNIA LEATHER IN ENGLAND.—In October last, Gray, Jones & Co., of the Santa Cruz Tannery, shipped 1,300 sides of sole leather to London for the purpose of inaugurating a new feature of their business. Now comes the report from their European agent that the leather has been sold at the rate of 20 cents per pound which is a very fair and satisfactory price. The result of this shipment is encouraging.

CORRESPONDENCE.

Ventura County.

EDITORS PRESS:—Seven miles from San Buenaventura, just above the residence of T. R. Bard, the first visible indications appear of the scars left by the "Ile" distemper as it swept over the Pacific Slope, in the shape of vast retorts, iron pipe, distilling and condensing apparratus scattered about in disorder and neglect. Again at the head of the valley the asphaltum appears in a black, ugly stream that has flown half a mile down the valley from the springs that are on a slope near the divide between the Ojai and Santa Paula cañon.

The oil itself has ceased to flow from most of these springs, leaving the residuum of solid asphaltum in terraces, mounds, frozen cataracts and any hideous shape imaginable. It is only in summer that these places are dangerous; many cattle are lost here when the heat of the sun softens these great pitchy springs.

Dessicated beef, preserved in this manner is pleuty at certain seasons. It is something of a surprise to be surrounded on all sides by streams of coal tar, or petroleum, and at the same time find limpid and fair flavored drinking water within a few feet of each. The mountains are torn and scarred as though all the elements had combined to rend such chasms and cliffs as one peers down into or from the shadowa of which glancea of foaming torrents are sending out the welcome noise of the waters.

For seven miles the trail winds up and down the sinuosities of this Cañon, and seven times seven of crevices and cramped foot-way, it is possible, may be traversed if one is desirous of imperriling life and limb, for the privilege of looking at a deserted derrick, or stumbling into a block of raised boulders.

Half way down this gaping wound on the face of Nature, and when one is the least expecting it, a cottage surrounded by a flower garden and shrubbery comes like a pleasant dream. A farther surprise awaits upon entering to find it the abode of cultivated folks of the female persuasion.

The climate, however, accounts for the importations of these fair inhabitants into this banishment. To bring the roses back to the cheek of wan valetudinarians is a common feat hereabouts; and not many years hence every nook and cranny of these tortoised mountains will twinkle with these humanitarian adornments.

Once settle definitely the grant question, and in a few years the higher valleys of Southern California will be densely populous with glad and happy fugitives from every quarter of the globe. There is sufficient water at all times in this cañon for power to grind wheat or drive the busy wheels of many a fabricator of any food or clothing material required.

At the foot of this great gash in Mother Earth is already one little machine that worries wheat and corn, so that it makes more wholesome food than many of the mills of greater pretentions; but the timber is on the ground for a good mill, which will soon be up and ready to turn out superfine and of course unwholesome bread stuffs.

The tarry waters of the St. Paular mingle with the limpid Santa Clara fifteen miles from the ocean, and although there is a larger body of water, (1,400 inches miners' measure) at this point than in any stream flowing into the Pacific between San Francisco and San Diego, no water appears in the beds of the Santa Clara at or near its mouth.

The valley of the Santa Clara expands first below the mouth of the Santa Paular Cañon, and presently we come on to a wide open plain that stretches to the north, south and west, nearly twenty miles in its greatest expause, containing probably a greater proportion of good land than any like area south of the north line of Monterey county in the tate, and mostly owned by speculators. "Wherever the carcass is there the vultures will be gathered," holds most essentially good in these Southern counties, as one sees few spider webs in a desert for the reason that there is nothing to draw the flies.

The tangled web of the human spider is woven most intricately about all the desirable lands of our Sunny South, for the simple reason that the poor human flies are bound to swarm thither sooner or later.

The tarry ebullitions must not be passed by without recording that, one well is affording six barrels per diem, which goes to the Gas Works of San Francisco. It is stated that there is too large a proportion of residuum left after distillation, and that fuel is too expensive to make illuminating oils from the petroleum of San Buenaventura. If asphaltum can be extensively utilized, there is untold quantities of it in the vicinity of the Paular Cañon. The boils and eruptions of this dark substance upon the cuticle of Mother Earth hereabout indicates that her system is overcharged with carbon, or it may be that she has taken a bad cold, lungs hepatised and don't oxygenate her blood sufficiently; will some of the doctors explain? At all events, if the earth's system has been terribly shaken up by disease and physic, in this vicinity, it is a most healthy spot for the human kind that have been subject to the same kind of inflictions. F. M. S.

Hueneme, Ventura Co., Dec. 26th., 1872.

The Valley of Los Angeles.

EDITORS PRESS:—The Valley of Los Angeles is only just beginning to develop its capacity, and if the defect in the titles (which defect is so necessary to the tinkers that have the benefit of ill made wares) was removed—with a simultaneous equalization of taxation—this broad and fertile plain would furnish pleasant occupation, and profitable, to thousands, where now are a score only eking out a subsistence. That is to say a hundred fold can be added.

The elevations of the mountains give unusual advantages in point of diversity of climate, the plain stretching from the sea in nearly an air-line to their base, attains an altitude of 246 feet at the city and 1,500 feet at the foot of the highest range. Up to this point the orange thrives, and in favored localities at much greater altitudes.

Peaceful are the sentiments which a dispassionate observer will naturally imbibe in feasting every sense in this matchless climate. Let one wander wherever impulse or fancy may dictate, whether over the fresh green plain, in the orange and walnut groves, or climbing the rugged mountains, a lover of the human species could not imagine a better picture than the rural life possible in these localities by combining in a great co-operative union, to do for ourselves and others all that is necessary to make life desirable.

That long life is quite the natural result of the pacific tendencies hereabout, is exemplified in several instances; the most notable is that of Evlalie Parriss, a native California woman, now residing at the old Mission of San Gabriel, or more properly the Mission, as rebuilt 90 yerrs ago. This woman is 131 years of age; her great-grand-daughter is grown and two of her daughtera are eighty and ninety years old respectively. Mrs. White, the wife of a subscriber to the RURAL, is a daughter of Evlalie, and has grandchildren well grown. Evlalie has the full possession of her faculties, and produced a good piece of Spanish ornamental needlework for exhibition at the late fair.

Another case of vigorous longevity among these peaceful and temperate people is that of an old man near San Juan Capistrano, who had a desire to see the races last year, and saddled his horse to ride fifty miles before day, in order to be in time for the first race. This fellow is only one hundred and thirty, a year younger than Evlalie. They both relate from their own recollection the incidents cotemporary with the building of the mission ninety years ago.

Your correspondent saw and conversed with these people, and has no doubt of their entire veracity. Probably there are many more of nearly quite the same age living in this favored clime; there is no good reason, at least, why there should not be many people of all nationalities that should reach this advanced age, by a proper observance of the laws of life and health, in a land blessed with such climate and surroundings.

In spite of the legal disabilities thrown in the way of advancement, land is held at fabulous prices; from $100 to $500 per acre in the more desirable localities, and $8 to $50 in any place at all accessible; what could be expected with perfect security of title and reasonable facilities of transportation and communication. F. M. S.

Los Angeles, Jan. 12th, 1873.

Cotate Ranch.

This is a ranch of nearly 10,000 acres, located half way between Petalnma and Santa Roaa. Here is where Page Bros. kept that nice herd of Durhams lately imported from the East, and noticed in the RURAL PRESS. These are not the only fine Short-horns that they have, for we see that their herd has been noted as prize-takers for some time, and the cow Lady Jane is hard to beat for an animal 11 years old. We think they had five thoroughbreds before the last importation of nine. Of the last importation Caroline Airdrie took no less than sixteen different prizes at the east last year, either single or as a member of a herd. Two of these were sweepstakes. She is one of the finest animals we have seen in the State. Mazourka's Royal Oxford, Ophir Prince and Nomi Richardson are all famous animals.

This herd of thoroughbreds is being very wisely used in grading up the stock of their large dairy. Here the marked result of improved blood can already be seen.

The Dairy House

Is in many respects modelled after that of Capt. Allen. They had the advantage of having built last and of plenty of means to carry out their ideas. The building cost $4,000, and is very nicely finished throughout. A special feature is the ventilating apparatus overhead. We presume this is to be taken as an indication of what the other farm buildings are to be. We think a visitor would labor under a great mistake who supposed that Page Bros. do not think it pays to give all stock good shelter in the climate of Sonoma.

Horses.

They have a very fine two year old colt weighing 1,200 pounds—a cross between the Hambletonian and draft stock. The yearling mare Anita is very fine and already known as a prize taker.

Sheep.

They have 100 thoroughbred French Merinos and 300 Southdowns. The grade lambs sold this year at $2.50 per head to the butcher. Where mutton sheep are used this sale of graded lambs to the butcher is a very profitable feature of the sheep business.

They have 600 sheep, 600 cattle, and a good supply of horses, swine and poultry. Their ranch is about half adobe and half gently rolling oak forest. They do a general farming business, devoting special attention to the dairy and sheep departments.

Their office is at 321 Front St. Mr. McDowell is the foreman in charge of the ranch. We hope to have cuts of some of their animals for illustration in future numbers. C.

Soils and their Adaptation.

EDITORS PRESS:—California possesses as varied soils as climates, and both the finest in the world. Visit her mountain and hill slopes, you find gravel, limestone and volcanic mixtures; in her valleys soils of red adobe and black alluvial textures.

In our extensive valleys are varied soils situated not far distant from each other, but if we did not see the products, compare, taste and handle, the half would not be known. We find along the bottom lands of the Sacramento rich black alluvial soil; the American variation of black and sandy sediments; the uplands, adobe mixed with blue clay; the highlands, red with mixture of sand; foothills, red and gravelly, each contains parts of different elements of ingredients, which, if analyzed by a chemist, will show what best suits their varied composition, and show what parts are required, if wanting, to make good soil, but all farmers are not chemists nor passed through her halls of agriculture. Still those who by close observation and attention, experience, self-will and culture, find and adopt the most beneficial to their judgment and use.

Fruits Along the Sacramento Bottom.

For fine peaches and pears we find along the river banks soil which has no equal. In years gone by where orchards planted with care in the selection and setting out, have grown to a large size, yielding each year large quantities of luscious fruit of extraordinary size. Those who visited the Fruit Festival held at East park by the Sac. Farmers' Club, in August last, saw the magnificent pears and apples weighing over a pound each, with grapes, plums and other products from the soils of the low and high lands approximating the city limits. Previous to the opening of the railroad large shipments were made by vessels owned by the producers, to the San Francisco market and adjacent thereto, and are still carried on with fruit that will not bear long transportation. Thousands of dollars have been made in the enterprise, enriching those who engaged in it. At the opening of new points along the railroad, the selection of fruits that would carry and remunerate the shipper, opened a new epoch in the disposing of vast quantities that were annually raised in our State, for our markets were glutted with all kinds of fruit, and the prices low, and a new outlet had to be attained; the railroad to the East gave us a vast country to supply.

The Standard Variety of Pears.

The Bartlett is par excellence the Flemish Beauties, Glout Morceau and Winter Nellies are the four best varieties cultivated. This last summer, each week during the fruit season, car loads were shipped by various firms to different sections along the line of the railroad in this State, Nevada and Utah, also to Chicago, St. Louis and New York. The pears are picked while hard, but matured in size, each wrapped separate in papers and packed firm in boxes in regular succession till full, nailed tight and reversed the bottom for top. The peach is also wrapped and sent short distances. Care should be taken in selecting none but perfect ones; boxes so constructed as to give them sufficient air; packed firm they generally arrive in good order. I predict a large shipment of fruit will be made this year if the carrying of freight is anyways reasonable.

G. R.

Sacramento, Jan. 18, 1873.

Petaluma Correspondence.

EDITORS RURAL PRESS:—The weather here now is delightful, and the crops are looking fine. In fact, the season, so far, has been very favorable with us for cropping. We now have a farmer's Club, and all the producing community seem to be awake to their interest in the matter; and there is no doubt but that we will have one of the most thriving clubs in the State. Having had a very open fall, the farmers succeeded in getting off all their crops of potatoes, and are now generally busy plowing for their grain crops. If you should not send your traveling agent around again in the spring, I wish you to continue my paper, anyhow; and should my time of subscription run out, you have only to inform me of it, and do not discontinue until I give you notice. Really, I consider it one of my greatest sources of pleasure to spend a few quiet hours reading your valuable paper, and I think that no farmer or stock-grower should be without it. I have taken it from the first number until now, and, if possible, it seems as though every number was growing better. Yours truly, G. P. R.

Petaluma, Jan. 13, 1873.

POULTRY NOTES.

How to Fatten Chickens.

We clip the following on fattening fowls from the *Boston Journal of Chemistry*: It is hopeless to attempt to fatten chickens while they are at liberty. They must be put in a proper coop; and this, like most outher poultry appurtenances, need not be expensive. To fatten twelve fowls, a coop may be three feet long, eighteen inches high, and eighteen inches deep, made entirely of bars. No part solid—neither top sides nor bottom. Discretion must be used, according to the size of chickens put up. They do not want room; indeed, the closer they are the better—provided they all can stand up at the same time. Care must he taken to put up such as have been accustomed to be together, or they will fight. If one is quarrelsome, it is better to remove it at once, as, like other bad examples, it soon finds imitators. A diseased chicken should not be put up.

The food should be ground oats; and may either be put up in a trough or on a flat board running along the front of the coop. It may he mixed with water or milk—the latter is the better. It should he well soaked, forming a pulp as loose as can be, provided it does not run off the board. They must be well fed three or four times a day—the first time as soon after dayhreak as may be possible or convenient, and then at intervals of four hours. Each meal should he as much and no more than they can eat up clean. When they have done feeding, the board should be wiped, and some gravel may be spread. It causes them to feed and thrive.

After a fortnight of this treatment you will have good fat fowls. If, however, there are but five or six to be fatted they must not have as much room as though there were twelve. Nothing is easier than to allow them the proper space; as it is only necessary to have two or three pieces of wood to pass between the bars and form a partition. This may also serve when fowls are put up at different degrees of fatness. This requires attention, or fowls will not keep fat and healthy.

As soon as the fowl is sufficiently fatted, it must be killed; otherwise it will not get fatter, but will lose flesh. If fowls are intended for the market, of course they are or may be all fatted at once; but if for home consumption, it is better to put them up at such intervals as will suit the time when they will he required for the table.

When the time arrives for killing, whether they are meant for market or otherwise, they should be fasted without food or water for twelve or fifteen hours. This enables them to be kept for some time after being killed, even in hot weather.

CHICKENS THAT HAVE CATARRH.—James Doherty, of N. J., writes to the Am. Farmers' Club that his chickens have "some kind of a disease in the throat or gullet." A little clear water runs at times from the mouth; throat swells pretty bad; tongue and roof of mouth much inflamed; queer rattling or gurgling as the breath is drawn. He has used a little alum water, but that don't save life. What is the cause and the cure?

Answer.—The trouble is catarrh. Remedy: A lotion of one grain of chloride of zinc in an ounce of water, with which the throat should be washed by means of a soft feather. If chloride of zinc is not readily procured, chlorate of potash may be substituted. Keep the fowls in a dry, cool, airy place; give them boiled meat to eat, as warm as they will take it, with a little ground ginger mixed in; and a small quantity of copperas in the water they drink.

ORDINARY DEATH-RATE AMONG POULTRY. We are satisfied that the ordinary loss of fowls by disease upon farms will average eight or ten per cent. yearly, even when destructive epidemics such as croup and cholera are left out of account This rate is much greater than in case of quadrupeds, but it need not and should not be so. By making a rigorous selection of the strongest breeds, and paying strict attention to feeding and affording comfortable quarters and especially by never keeping fowls till they are so old as to be past their prime, the ordinary rate of mortality (of course we are speaking of adult birds) will not be more than three or four per cent. annually. No amount of skill and care is sufficient to prevent all losses.—*Ohio Farmer.*

EVERGREENS FOR POULTRY ROOSTS.—A correspondent of the *Practical Farmer* truthfully says:—"Turkeys and hens prefer roosting upon evergreen trees, to being shut up in filthy coops all night:—the branches are arranged to suit fowls to roost upon; they are sheltered and are beyond the reach of foxes and other animals that prey upon them; they keep free of vermin, enjoy good health, and are generally more profitable. In the heat of summer they get under the trees for shade, and the lower branches being near the ground and widely spread out afford large, shady and airy coops."

A WRITER in the *Poultry World* says his plan for curing hens of a desire to sit, is to put them in an open yard, where there are no nests or roosting places, and differing as much as possible in appearance from their regular quarters and feed them liberally with soft feed made rather hot with cayenne; give them plenty of cooked meat and all the milk they will drink.

Miscellaneous.

A New Idea in Wine Manufacture.

Dr. E. W. Sylvester, of New York, read a very interesting and suggestive paper before the American Institute Farmers' Club on the 24th ult., wherein he endeavored to show the existence of an entirely new principle in the manufacture of wine—that the substance which we call alcohol is not produced by fermentation, but only by the *after process* of distillation. In other words that no alcohol, whatever, exists in pure, fermented wine until it is placed there by mixing therewith the products of distillation. He calls the fluid produced by the fermentive action of sugar on the juice of the grape, "fermentine" and we suppose, by parity of reasoning the rule holds good in the fermentive changes of all other saccharine liquids. This fermentine becomes alcohol only on the application of heat sufficient to produce evaporation. Natural temperature, when high enough to cause a somewhat active evaporation, is sufficient to effect the change when in vessels not entirely filled. It is claimed that this new product—fermentine—is essentially different from alcohol in its effects on the human system and upon various substances in nature.

The Doctor compared the relative actions of fermentine and alcohol to the moderate eating of cloves, which only acts as a gentle stimulant, while the oil which may be obtained from the same quantity of cloves by distillation would produce almost instant death. The change takes place in the act of distillation—changing a harmless stimulant to a deadly poison. This gentle stimulating principle in cloves cannot be separated by any means now known to chemists. When it is sought for, it is converted into an entirely different substance, as is known from its effects. So it is with fermentine, which has never yet been seen pure and unmixed. But confidence is expressed that since the existence of the principle is now known and recognized, chemistry will eventually be able to isolate it.

It is well known to chemists that the same combination of elements does not always lead to the same results. Common illuminating gas, when pure, is identical with the ottar of roses; yet it does not require a chemist to distinguish the flavor of the one from the other.

Fermentine, as taken moderately in pure wine, gently and healthfully excites the system, and has the power to restore the victim of a burning fever to natural action and vigorous health; while alcohol spends its whole force on the nervous system—breaking down and shattering instead of building up. Hence the Doctor concludes that no wines should be used which have had alcohol added to their bulk.

Horseshoes.

The earliest horseshoe makers appear to have been Vandals and German tribes, in the graves of some of whom they have been found. They seem to have been totally unknown to the ancients. The first mention of them in literature is in the works of the Byzantine Emperor Leo, about a thousand years ago, by the name of "selenaia"—half moons, or crescents. They are thus among the most modern of our everyday appliances. Before Leo's time, cavalry horses were often disabled by the wearing out of their hoofs. The war horses mentioned by Job and other Scriptural writers were unshod. Receipts were given by Xenophen, Vegetius, and other writers, for hardening the hoof. The Japanese have for centuries used straw socks or shoes for the feet of horses traveling on stony roads. They wear out quickly but cost almost nothing, and can easily be repaired.

Horse shoeing was probably introduced into England by William the Conquerer. Henry de Ferres (or Ferrers), who came with him, had six horseshoes quartered in his coat of arms, and is believed to have been superintendent of farriers.

The superstition which attributed a power over evil spirits to horseshoes, and which at one time prevailed so largely that most of the houses in the west of London had them nailed over the entrances, yet lingers. In many houses of the more ignorant classes in several countries they may be still be seen thus displayed.

It was reserved for an American, Henry Burden, of Troy, to contrive machinery whereby this most useful article could be prepared by machinery instead of by the tedious and laborious hand process that all nations up to the middle of this century employed.

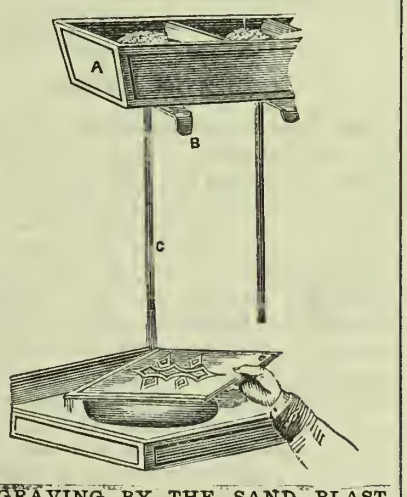
Determination of Sex.—Professor Agassiz, who has given more new ideas, and furnished more food for the mind, more practical knowledge to the people of "these United States," and all served up in the choicest and most interesting and easily-understood words and sentences, than any other man in the same years, recently made an address before the Am. Institute Farmers' Club at New York, in which he said he would confine himself to one branch only, which should be the various functions connected with breeding. He startled his hearers by declaring that the time would come, though far in the future, when sex would be regulated and determined before birth. There were but two classes, the oviparous and viviparous, and in both cases the germ sprang from an egg, though in the latter the young were brought forth alive. His illustrations and delineations on the blackboard of the egg in the process of incubation were not less interesting than the developing changes in its incipient stages, previous to its becoming a germ. An egg is a live being struggling into its development, he said. The world needed observers.

The Sand Blast.

The interest in the sand blast seems to be constantly increasing, as the sphere of its usefulness becomes more and more extended. Since the original patent was obtained by Mr. Tiligman in Oct. 1870, numerous devices have been patented on various contrivances for applying it to practical uses.

We give herewith a representation of one of the most simple ones, which is shown in operation upon an engraver's table. A pattern or stencil has been prepared and placed upon the plate to be engraved, the plate being moved about on the "cushion" the exposed portions thereof are cut away by the falling sand, while that intended to stand in relief is protected from wear by the pattern.

Sometimes the tube, which conveys the blast is made flexible, in which case the stream of sand is guided over a fixed surface. The article to be engraved may be a silver cup, a watch



ENGRAVING BY THE SAND BLAST.

case, a goblet or other articles. The sand consists of a mixture of corundum and emery. It is simply placed in a hopper a few feet overhead, and as fast as it runs down may be replaced in the hopper by hand. All the work, after the pattern is placed upon the article to be engraved, may be done by boys or girls.

A current of steam is sometimes introduced into the sand tube, which drives it with great force for cutting rock, etc. With 100 lb pressure of steam, and a supply equal to 1½ horse power the cutting effect is found to be about 1½ in. of granite, 4 in. of marble, or 10 in. of soft sandstone per minute. The sand is introduced by a central tube of ¼ in. bore, the steam issuing from an annular passage surrounding the sand tube.

An Important Application

Of the blast has been lately directed upon a block of brittle pitch or resin, on which a picture has been produced by photography, in gelantine, or drawn by hand in oil or gum. The bare surface of the resin is quickly cut away, leaving that portion covered by gelatine undisturbed. The material may be so cut away to a depth, which will allow of its being used as a matrix for an electotype, which can then be printed from an ordinary letter press. The lines left in relief will be well supported, their base being broader than their top, and there being no under cutting, as occurs in zincography, where the etching is done by acid.

The variety of uses to which the sand blast may be applied is constantly multiplying.

Lubrication without Fatty Matter.—It has been a long time the practice, with horologists to use graphite as a reducer of friction, in even the most delicate pieces of mechanism. In blowing engines, also, if the gearing is copper, graphite is the only lubrication used. These facts have led to the simple experiment of ascertaining the effect of a mixture of graphite—prepared by decantation—and hog's lard, first in the stuffing-box of a pumping engine, and subsequently upon a steam engine. The result proved to be very satisfactory in the case, the only especial care requisite being to keep up the necessary quantity of graphite in the mixture, as otherwise it becomes too fluid. In another experiment, in which a paste of graphite and water was employed, the result proved equally effective; the slight escape of steam into the stuffing-box was sufficient to keep the graphite in a moist coudition, and the lubrication seemed quite perfect, although there was no fatty matter present.

Stock Range.

Good Walkers.

Eds. Press:—From the time when the horse first entered the service of man, unceasing efforts, prompted by various motives, have been made to develop his capacity for running, and during the present century he has been transferred from the running to the trotting course; achieving results that would have been considered impossible by the owners of his ancestors. But in his walking gait, that in which he is really most servicable to the world, his education has been neglected to a degree almost unaccountable.

In walking, horses vary as much in their speed as in running or trotting; while the substantial reasons that exist for this variance in these latter gaits are not to be found in connection with the former. Any horse may become a good walker, while only a few have the make-up essential to what is considered speed on the road or race-course. The stout-limbed, deep-breasted Canadian draught horse may be brought up to a good walking gait, as well as the light, spare members of the horse family. In fact, good runners or trotters are rarely good walkers. A horse soon becomes aware of what is expected of him. His ambition, whether it be great or otherwise, will all be centered in the task set before him. It is while walking that the racer obtains rest. He is now off duty, and nothing is required of him. But of the working horse little is, or should be, required, as regards speed, above a good walking gait. In the field nothing else is expected; and even on the road, if he were confined to this gait, though hauling nothing but the empty wagon, he would travel over as much ground as when urged to trot short distances, which invariably end in a slow walk.

Before the plow or harrow the importance of having the team more at a good walking gait is scarcely realized. A much larger surface might be worked without any more urging than is necessary to keep poor walkers up to even their slow gait. When a horse has once acquired a good walk it is no punishment to him to keep him at it throughout the working day. It is, in fact, easier for a good walker to move at his habitual rate of speed, than for the ordinary work horse to continue all day in his slow unsatisfactory walk, for he is not stiffened with previous over-driving.

Experimental teamsters declare that the draught is lighter when the horses are walking at a fast gait than at a slow, dragging one—the wagon losing in self-propelling power as the wheels move slower. The public will scarcely demand further proof of the truth of this assertion than their own observations will supply. A large portion of the loaded wagons that we meet or pass on the road are dragged along by teams that need constant urging to keep the wagon in motion. The traces seem never to slacken, and their necks seem never to be relieved of the galling pressure of the collar. Valuable time is thus lost by horses and driver; and if either of these parties is not actually lazy, there is a manifest irritability that is more exhaustive of vital power than real work. The whole establishment conveys to the beholder a realising sense of the punishment of labor.

As a welcome relief to this annoying sight, we occasionally meet a good walking team outstripping their moody, slow-going companion of the road, at a rate, probably, of one mile in four—the gain in comfort being apparently still greater. Both horses and driver seem to be masters of the situation.

No one admires fancy horses more than the writer; and we would not wish to see agricultural societies cease to encourage the display of trotting speed at their fairs; but, at the same time, we are well aware that no more benefits accrue to agriculture, proper, from the achievements of those horses on the race-tracks at these fairs than from the tricks of the trained animals in the circus-ring. But, if the same encouragement were given to the development of walking capacity in our horses, results as beneficial, as interesting, would grow out of it.

Let us have our *walking-matches*, in which horses are entered, both with loaded and empty wagons, being confined exclusively to this gait. Let those who have succeeded in developing speed and easy motion in this branch of horse-training be properly rewarded. This point should be considered in plowing-matches; and the movements of a horse while before the wagon, plow or harrow, should take a prominent place in the qualities required of a good farm-horse. H. B.

Hereditary Disease in Animals.

We often see it stated that certain diseases are hereditary, and when purchasing for the purpose of breeding, it becomes an important matter to decide what diseases are hereditary, and, if possible, what are not.

Youatt dodges the difficulty by the assertion "that there is scarcely a disease to which a horse is subject that is not hereditary." Since Youatt wrote the above, science and observation have done more to clear up that which was but doubtful, and if this writer was to re-write his assertion to make it suit our present knowledge on the question, he need only change "is not" to "may be," and his quotation would be correct.

While all constitutional diseases are not necessarily hereditary, they are so often so that the exception seems only to prove the rule, rather than to prove it incorrect. Nor can we stop here, for all know that in horses a bad kicking, or biting mare, is almost certain to have colts practicing her bad habits. We also well know that diseases, or malformations, such as spavin, ringbone, heaves and crib-biting, are all, in the first case, the result of accident, or improper management, are handed down from generation to generation, with almost as much certainty as constitutional diseases.

As we proceed in this way, we begin to see that the assertion of Youatt, though seemingly sweeping, is no more than true, and that any disease to which the horse is liable may be hereditary.

To complicate the matter still further, the investigations of the last ten years prove even accidental injuries may be transmitted from sire to son through a succession of generations. Mr. Scott, of Dryden, N. Y., had a mare with foal permanently injured in one eye by a burdock burr, and her foal had the left eye undeveloped, and represented only by a small round black object. Dr. Lucas mentions the case of a cow having one horn knocked off, and afterwards having three calves hornless on the same side.

From these and other cases which could be mentioned, it will be seen that accidental injuries, though not always hereditary, are often so, and if any great interest is involved, should be avoided entirely in the selection of breeding stock, and in illustrating one point, we have carefully avoided mentioning any cases wherein the descent of the evil could in any way be traced to the imagination of the animal.

Hints to Horsemen.

[For the Press.]

In the first place his pedigree should be known, that the stock he descended from should be free from hereditary diseases or formation, such as periodical opthalma (commonly called moon eye), gutta serena, ring bone, spavin, spongey, flatfoot, thick wind, curly hocks, etc. It is a well known fact among horse breeders of fine stock that the above are hereditary in disease or form. The horse should have a well developed nostril the eyes of a bright hazel and set well apart and prominent, the ear should be thin and well pointed and nearly erect, good length of neck, the throat well cut up and a good width between the jaws underneath, withers well up, shoulder a gentle slope back, chest deep, fore-arm well muscled, knee-pan broad and flat, cannon bone free from splints and not tied in under the knee, pastern joint not too long, feet full in the quarters, no water or sand cracks, as it shows a thin or weak shell. The back should be short to the coupling of the hip, the hip running out to the root of the tail well up, good length from point of hip to root of tail, stifle low and thick, hocks free from wind galls, curls or sprains, angle of the leg from hock to the foot nearly straight.

In many instances farmers cannot follow the above rules as the horse is not in their vicinity, but with a fine blood mare it will handsomely repay them to send abroad to breed from a pure horse. Having visited all the principal breeding establishments in the United States and several in Europe, and having been in California the past four months, I think there is no place in the world where fine stock can be raised and developed better than here, and if breeders will breed judiciously I predict that in a few years California will furnish the Eastern cities with their fine coach and road horses.

As I expect to visit some of your principal stock raisers, I will inform your readers from time to time of my observations. P.

Tobacco Culture. — J. D. Culp, of Gilroy township, has demonstrated to the entire satisfaction of experienced tobacconists the feasibility of growing and curing tobacco in this country, which is but little, if any, inferior in quality to that grown on the island of Cuba. In fact, cigars made from his tobacco have deceived the best experts in that line, as was demonstrated a few days since on the occasion of the visit of a number of San Francisco tobacconists to his works. As we stated some time since, in describing Culp's tobacco works, he claims, by his process of curing—for which he has obtained letters patent — to accomplish for the tobacco the same results as are produced by the hot, moist climate of Cuba. In other words, he holds that the only difference between the tobacco of California and that of Cuba, is the excess in the former of nicotine and other volatile oils; and that by this method of curing he expels these obnoxious oils. The results he has obtained fully confirm this theory. By this process of curing, the culture of tobacco can be made immensely profitable in this country, wherever the soil is adapted to its growth. Mr. Culp's last year's crop—some twelve thousand pounds—for which he has been offered fifty cents a pound, cost not to exceed three and one-half cents. The profit is so immense that the producer could well afford to pay for the royalty. The whole secret of curing could be acquired in a short time by one of ordinary "gumption."—*Gilroy Advocate.*

Farmers in Council.

Sonoma Farmers' Club.

From the Sonoma *Democrat*, of Jan. 18, we copy the following:

Important Report of Committee of Incorporating the Farmers' Club.

To the President and Members of Sonoma County Farmers' Club:—Your Committee on incorporating the Club beg respectfully to submit the following report:

Your Committee have not discussed the question whether the Club should incorporate, because it is manifest that the sense of the Club is favorable to such a movement, and the reasons therefor have heretofore been fully presented to the Club, but have confined themselves to the consideration whether the Club should mantain its present social character or should incorporate for profit upon the basis of capital stock. It is manifest that while the moral benefits of a mere association of farmers are apparent, and much good may be derived therefrom, yet in order to market our crops cheaply, control freights, make successful war on monopolists obnoxious to our interests, we need some more effective machinery than that afforded by a mere social organization. There must be a financial and commercial element in our organization to make our power felt. In a social organization we must needs each be equal, but where we use capital to effect our purposes, those whose wants are greatest and who contribnte most of their means to effectuate our purpose should receive the benefits in proportion to their needs and capital involved.

Your Committee are also aware that on account of the extent of the geographical limits of the various counties, and the sparse population, county clubs organized merely for popular purposes cannot command general attendance in their respective counties; and hence will arise in time district farmers' clubs, which will be more or less in number in each county, as the population demands, or the intelligence and enterprise of farmers induce.

Other Organizations

Already in this county since our organization there have been organized two other clubs and we hear of others. Hence your Committee recommend three classes of corporations:

1st. We recommend the incorporation of this Club, as provided by section 286 of the civil code of the State, as a corporation "for the encouragement of, or business of agriculture, horticulture and stock-raising;" that we mainta n our social character, as it is at present, so that none but those interested in the farmer's progress may be members thereof, and by which we may choose our associates. In the which, also we may discuss all matters of interest to farmers, interchange views, provide for experiments, suggest new crops, foster an intelligent and diversified husbandry, and create a brotherly sympathy for each others aims and labors.

We recommend that we use our best endeavors to nduce the farmers in different parts of the country to organize like clubs.

2d. In order that a pecuniary profit may accrue, we recommend the incorporation of a "County Farmers' Union," upon the basis of a capital stock of say not less than $100,000, the paid-up capital of which shall be $10,000, and increased as necessity demands. Part of this stock may be taken by the several local or district farmers' clubs, and the remainder by farmers whose operations are large, and whose wants the local clubs could not supply. This County Union could enter the market, buy sacks at reduced rates secure by the large interest of its operations cheap freight, both by ship and car, build or lease warehouses, accumulate funds for loaning to farmers, secured by storage of crops, and be the farmers' consignee and middlemen. The farmers holding stock would thus control both the capital and the crop, and could easily prevent it from being an engine of oppression. It need not necessarily be organized to secure profit and declare dividends; these results would be obtained by cheap freights and increased prices for produce, and the profit would be found in "farming." We would here say that each stockholder should be a member of a farmers' club.

Farmers of the State.

Your Committee would recommend that this Club take some means to present this question to the farmers of the State, so that other counties may follow this plan, and have in each county a "County Farmers' Union" duly incorporated.

After a number of County Farmers' Unions have organized, then the State Farmers' Union should be incorporated with a capital stock of one million dollars, the stock of which shall be held and owned exclusively by the "County Farmers' Union."

To effectuate this plan this club should at once incorporate as recommended; inaugurate a "Sonoma County Farmers Union," and by correspondence bring this matter to the attention of the farmers of the State until finally the financial arm of agriculture shall shield and protect every farmer in the State.

The benefits to be derived from this organization may be outlined as follows: The several clubs at their meetings can report the prospects of the crops from time to time, to the Union and the probable amount of the several products; the estimates of the county thus made and forwarded promptly to the officers of the State Union will enable them to make estimates of the number of sacks required and the tonnage necessary to convey the crops to foreign markets.

The officers of the State Union, by observation of the prospects in fo eign countries, and the East, will be enabled early to form an estimate of the value of the several products of export. Thus the farmers by their agents will be able to fix the prices of their own products, and by the moneys and credits established by and represented in these exportations, they will be able to maintain the prices they may agree upon.

The State Union,

By the knowledge of the amount required to supply the foreign demand, can make arraugments for the storage of such as it is not desirable to put on the market, in places convenient to market, so that it can be drawn upon to supply any demand which may arise.

By these organizations valuable tables of statistics can be compiled and arranged in conveuient form for reference, so that the officers of the State Union will be able at any time to know the number of centals of grain that have been produced in the State during the past year, and after the 15th of May, to know the number to be produced that year, to know the amount shipped from and the amount consumed in the State, and the amount on hand. So of wine and wool, and all agricultural products of the State. By the fund of knowledge thus aggregated, to which each has contributed his mite, each farmer will be advised as to the proper time to dispose of his produce, and also what crop will be most profitable in the immediate future.

Thus organized, thus combined for the maintenance of our rights, we will be able to bid defiance to the monopolists who have been preying upon us in the past, and if we cannot entirely dispose of the "Middle men," who stand between the producer and consumer, we shall be able at least to induce a more liberal division with us, of the fruits of our toil, to compel them to live less sumptuously, to ride in carriages less elegant, drawn by slower horses.

Respectfully submitted,

S. T. Coulter,
W. H. Rector,
R. Fotsyth,
Isaac De Turk,
E. W. Maslin.

Farmers' Club Proceedings.

The Farmers' Club, of Branch township, Stanislaus county, convened at Roberts' Hotel, Jan. 5th. The President of the Club, Mr. Warden, was allowed further time to report constitution and by-laws. The Committee on Circular agreed to report in full next meeting. The Secretary read a communication from the Commissioner of Agriculture, recommending that an annual election for all the different clubs to be held in May. Mr. Jos. Dominici then read his weather report for the month of December, accompanied with a few very appropriate remarks. He states that his record dates back to 1867, and he does not remember that the bounteous rains had been more beneficiently distributed than they have been within the last month There had been no floods and, notwithstanding the rain-gauge marked the unprecedented fall of seven inches, the Tuolumne and other streams had not been as high as last year, denoting the fact that it had been absorbed by the earth, which would in due season, send forth beautiful crops. He also—judging the present by the past—was confident that we had had our coldest weather. The sack question was then opened for discussion, whereupon he read an essay on the subject. H. B. Davis followed, stating that we must expect to bear the sack burdens for some years yet, but desired to have the matter done away with, and that the farmers should agitate the question until the result was accomplished. He would like to have the experiment made of raising sack material among ourselves, and thus set the waters of the Tuolumne at work manufacturing them. Why not try the jute? (We have sent him a package—*Ed. News.*) Mr. Dominici stated that he had seen the jute growing in Germany, where it is not only used in sacks, but the better quality was worked in fine linen fabrics. Just now, he thought, we had no time to grow sack material; the fields were already green with our growing wheat. Mr. Warder related a conference with an ex-sack man of the ring.

In Scotland the usual price of sacks is, from three to four cents apiece. Allow two cents for shipment, three cents for government tariff, and we have sacks at nine dollars per 100. A Committee for Conference, consisting of Wm. Fitzhue, John Roberts and S. M. Gallup, was appointed. The Club then adjourned to meet at the same place again on January 18th.

Farmers' Club and Narrow-Gauge Railroad.

On account of the inclement weather the Club meeting of Saturday, Jan. 11th, was below the average in attendance; and especially were those absent who were interested in the subject for discussion.

Upon invitation of the Club, Mr. Dewoody, Surveyor, made a statement to the following effect: He had examined the proposed route with care, and was satisfied that a practical grade could be found from Napa City to Lakeport via Pope, Chyles and Coyote valleys. Said gauge need not be more than three feet wide, or about half the widthh of a broad gauge; the ties therefore need not be as long as usual, and the iron, being lighter, would not cost as much. The total length would be about eighty-five miles. The estimated cost of the Stockton & Visalia road is $8,000 per mile. He thought that $10,000 per mile was a liberal estimate for this—allowing more for grading than wagon roads cost. The road, if built, will pass through valleys that will furnish business enough to sustain it. They want facilities for transporting their surplus fuel, their quicksilver and their grain.

He had no doubt but that the road would be a paying investment. The only question he had not settled was: "Where's the money to come from?" This is the question for those who are directly interested in it. The subject should be presented to the people, so that they may see the benefits to accrue to them, and they will subscribe the necessary means.

Several members of the Club followed by speeches, the general import of which was that other subjects of more immediate and practical importance should engage the attention of the Club, and referring the narrow-gauge railroad project to the attention of capitalists.

Mr. Coombs thought that this subject of cheap transportation was of prime importance to the farmers, and that unless they take hold of it nobody else will. They are in a grave error in supposing that capitalists will invest money in railroads for the accommodation of anybody but themselves. If capitalists build it, they will own it and control it so as to make the most of it. This is the mistake common to farmers; they expect somebody else to furnish the means, that they may reap the benefit. The means should come from those who reap the most direct and chief benefit—from those whose land is appreciated in value, and who are enabled to market their produce at greater profit. So if they would escape the extortions of middlemen, and exorbitant charter rates, they must build warehouses and own ships themselves; otherwise they can blame no one for their oppression but themselves.

Mr. Dewoody added to his previous remarks the following concerning the projected narrow-gauge from Benicia to Berryessa Valley. The route so far is easy, the grade light; but beyond Berryessa toward Lakeport the road can never go. For a distance of forty miles it would be necessary to blast most of the way through basalt rock; and in this space there is no trade to support a road, not even wood for fuel. Unless the road proposed through Napa county were built, the only outlet for the Lake country will be by way of Cloverdale.

A Communication was read by the Secretary from I. N. Hoag, of Sacramento, concerning mulberry trees, and the attention of members directed to that source for a supply.

The Secretary also presented a communication from Hon. W. W. Pendegast.

It was determined to hold the meetings of the Club henceforth regularly every alternate week—the next meeting being on the 25th instant.

The subject for discussion will be the best method of disposing of our grain; in proposing which Mr. Gridley said: "We have talked enough; we must now do something."

On motion the Club adjourned.

G. W. Henning, Sec'y.

—*Napa Register.*

Breeding for Mutton.

Eds. Press:—In a recent issue of the Sonoma *Democrat*, and among its excellent Agricultural Notes, our attention was particularly called to an article taken from the *National Live Stock Journal*, entitled "Breeding for Mutton," and which strongly advocated the crossing of the American Merino with the large mutton breeds and especially with the long-wooled Cotswolds and Leicesters. Although we by no means coincide with the conclusions arrived at, nor accept them as proven, since we find that the advantages and propriety of making this cross are still warmly mooted by very many, not only through the columns of the *Live Stock Journal*, but likewise in the *Country Gentleman* and other agricultural papers. We were nevertheless pleased to see the article reproduced as we trust the question will be thoroughly ventilated in our section, and call forth from some of your numerous subscribers their views and the results of their experiments in this direction.

Being largely interested in Merinos we contemplated about a year ago making this very cross, but after having given the matter every consideration and read up on it extensively, besides consulting with various parties who had been long connected with large sheep runs in Australia and had seen the experiment tested, were deterred from our intention, feeling persuaded that, however successful, or advisable it might be under certain circumstances, it would be unprofitable to us, and more particularly so when large flocks were concerned.

Randall, the author of various works on Sheep Husbandry, and than whom there is no better authorship in the country, says: "It is a proven fact that the American Merinos will do better in large flocks and on poor and dried up pasture, than any other breed. Mutton sheep consume more, demand a greater variety of artificial food than Merinos, and much more care and, therefore, are better adapted to small, high-priced farms, where it is desirable to invest as much capital in sheep as can be rendered remunerative. But the long-wool families would be wholly unadapted to large farms where surplus capital is wanting even were there not a difficulty of another kind. They do not herd well."

The natural inference is that this also applies, though perhaps in a less degree, to the produce of Merinos crossed with Cotswolds, and therefore conceding that there is no danger to the ewe while lambing nor any very marked deterioration in other respects (which by the by we only assume), the point of increased consumption of food in this State, an important one, when our animals have to depend almost entirely on dry feed at the very time when the demand for mutton is greatest and brings the most remunerative prices. If then our dry feed is adequate to sustain the Merino in marketable condition, but not sufficiently so for the larger produce of the cross herd, it is plain that the former would have the preference, not at the same but a higher figure. In any case we much doubt whether there is any appreciable difference made in favor of the ewes bred as mutton sheep, and which is not far more than counterbalanced in all other qualities by the pure Merino. In January last, we sold out of a band of 1,300 wethers, aged 21 months, 500 head at five dollars, and disposed of the remainder in June—after shearing—at three dollars and a half per head. The fleeces of the 800 averaged seven and a half pounds, being a full year's growth. Can any advocate of the cross-breed produce as good a showing in as large a band?

Another consideration in breeding for mutton is: Have we a market for it and one that is accessible? If so, it might be worth while for those possessing a few head of Merinos to test the experiment of crossing with long-wooled sheep. But as the vast majority of our breeders are far remote from any market and freights are exorbitantly high, mutton to them must be a secondary object. Would it not be folly for them, under such circumstances, to endeavor to promote breeding for mutton at the expense of their wool, unless indeed it could be shown that the fleece of the cross is equal both in value and weight to that of the pure Merinos? On this point indeed we should like to hear the opinion of some of your correspondents, also stating the number of sheep, how cared for, and whether the result of the first, second or third cross. It is a well-known fact that the wool from such a cross makes but indifferent cloth, and long wools generally from their nature do not enter into anything like the consumption of the fine, as is shown by our immense imports of the latter over and above our own large production. We believe, therefore, that as regards California, fine wools will prove the most profitable in the long run, but are open to conviction on presentation of incontrovertible testimony to the contrary.

P. B.

San Francisco, January 15th, 1873.

Wheat Prospects in England.

From *Mark Lane Express*, of December 23d, 1872, just received, we take the following:

To the Editor of the Mark Lane Express.

Sir:—The legitimate wheat sowing season is now over, and we stand to be afflicted with a greater national loss in our home produce than any we have sustained during the present century. From personal observation in various districts I have come to the conclusion that only about one-half the wheat intended to have been sown has been got in, and that in the worst possible condition; as may he seen by the innumerable horse tracks left in almost every field, and now standing full of water to the brim. Much seed has, therefore, burst prematurely, and is now rotting in the ground; and that which has germinated and come up, is looking wan and sickly. The necessity of sowing inferior seed—there being few good samples to be had—has aggravated the evils of the weather, for it is against all experience to expect a vigorous plant from a weakly parent. Favorable circumstances between the present time and harvest may slightly modify the gloomy prospect now before us, but they can no more bring about a good crop than exterior decorations can give stability to a house on a bad foundation. Thos. C. Scott.

King's Arms Yard, Moorgate-street, Dec. 21.

To the Editor of the Mark Lane Express.

Sir:—In reviewing the prospect for another year, I must say I never saw it worse. The land is saturated to such a degree that a greater part of the fertilizing qualities are washed out of it; and on the stiff clays the wheat sown is, with few exceptions, never likely to come to a crop, the seed having burst with the wet and therefore become rotten. What little has come up has been eaten off by the slugs, so that the land must be sown over again, either with spring wheat or something else; moreover there is not more than a third of the wheat sown. The prospect for the spring seeding is also bad, the fallows being very foul, and labor very dear, on account of the people who go stumping about the country, causing dissensions between master and man, and the land will not be got into a fit condition to receive the seed. The crop therefore, must be very deficient, and should the present state of things continue, a greater portion of the stiff clays will go out of cultivation (and they are the wheat-producing soils), for they will not repay the expense required. I remain, sir, yours, etc., C. L.

Huntingdon, Dec. 13th, 1872.

Now.

If I were to give a motto to go through life with, one that would stand for warning and council in any straight in which you might find yourselves, I would give it in this one word "now".

Don't waste your time and your strength and your opportunities, by always meaning to do something—do it. Only weakness comes of indecision. Why, some people have so accustomed themselves to this way of dawdling along from one thing to another, that it really seems impossible for them to squarely make up their minds to anything. They never quite know what they are going to do next, and their only pleasure seems to consist in putting things off as long as possible, and then dragging slowly through them, rather than begin anything else. Don't live a single hour of your life without doing exactly what is to be done in it, and going straight through it from beginning to end. Work, play, study, whatever it is, take hold at once and finish it up squarely and cleanly, and then do the next thing, without letting any moments drop out between.

It is wonderful to see how many hours these prompt people contrive to make of a day; it's as if they picked up the moments that the dawdlers lost. If you find yourself where you have so many things pressing upon you that you hardly know how to begin, let me tell you a secret; take hold of the very first one that comes to hand, and you will find the rest all fall into file and follow after like a company of well-drilled soldiers; and though work may be hard to meet when it charges into a squad, it is easily vanquished if you can bring it into line.

You may have often seen the anecdote of the man who was asked how he accomplished so much in his life? "My father taught me," was the reply, "when I had anything to do, to do it." There is the secret—the magic word now.—*Exchange.*

Agricultural Notes.

CALIFORNIA.

ALAMEDA.

Transcript, Jan. 19: Grain Shipments.—The piles of wheat in the warehouses on Long Wharf are growing in numbers as also in bulk. Ships to carry it hence come over slowly. No new arrivals since the California commenced taking aboard her cargo of 2,000 tons. Grain on the west side of the San Joaquin river is in many places six inches high. The area of land seeded this year will exceed that of any previous year.

Disappeared.—We have to go away from home to learn what is going on at home. Some weeks ago an item was published in this paper to the effect that several horses in Oakland had been effected with a mild type of the epizootic. And now comes along the *Bulletin* of last evening with the subjoined paragraph which we merely preface by stating that so far as we are advised there are now no animals afflicted with the malady in this city:

The Epizootio in Oakland.—It has just transpired publicly that there have been a number of cases of the epizootic among horses of Oakland during the past two months. The character of the disease was very mild, but unmistakably the same malady that raged among horses in many of the Eastern cities. It was brought there by a six mule team, which arrived about three months ago. Seven horses in one stable and eight in another have passed through the disease. A few single cases are reported as having occured. There are but two horses now sick with the disease and they are nearly recovered.

Gazette, Jan 16: The Weather.—Up to date we have had a perfect winter. Just rain enough, coming just at the right time, and just in the right manner. We do not remember ever to have seen its equal, all things considered. Although it is only the middle of January, the hills are as green as they usually are in February or March. The farmers are busy and hopeful as possible. For the past three days the region around San Francisco bay has been bathed in as delicious sunlight as ever gladdened the heart of humanity. A soft blue haze floats in the warm and quiet air and softens the outlines of the distant hills beautifully. It is actually a luxury to exist in such an atmosphere. You are comfortable with a woolen coat, a linen coat, or no coat. You can build a fire if you wish and it is not disagreeable; if it goes out you don't miss it. Now, old grumbler, pick up your Eastern paper and read about snow three or four feet deep—thermometor from ten to thirty degrees below zero—trains snowed in till only the top of the smokestack of the locomotive is visible—and then growl, if you dare, at the monotonously pleasant weather that we sometimes hear persons grumble about in this favored land. Wish we could transfer a piece of that Eastern country about a half mile square to this Coast and locate it somewhere near town where the growlers could walk out of our warm sunshine into its biting wiuds and blinding snows.

EL DORADO.

Democrat, Jan. 18: Angora Goats.—There is no part of the State, or any part of the world, not even excepting their native country, better adapted to the breeding of Angora or Cashmere goats than are the shrubby foothills and lower mountain altitudes of this country. By means of this industry the browsing range which is otherwise a nuisance can be utilized to highly profitable uses. It is capable of unerring demonstration—in fact it has been demonstrated—that when managed with ordinary intelligence and reasonable care, an annual income equal to the original investment can be realized from this industry after the fifth year from the time of starting, with lively proportionate increase thenceforward, but the average "old Californian" cannot find it in his heart to be coutented with any business that involves waiting a term of years for returns.

Placerville Exports.—Within the past few weeks L. Landecker, a grocer, provision and forwarding merchant on Main street in this city, has shipped overlaud, consigned to a Boston firm, something over thirty-two thousand pounds of cleaned and compactly baled soaproot fiber. This article is found in enormous quantities through a large extent of country above here, and as it is confessedly, when properly prepared, the best known substitute for curled hair, there are good reasons for supposing that it will become a prolific source of wealth whenever its value shall become universally recognized. When well cleaned and curled, and mixed in moderate proportions with hair, it materially lessens the price without seriously detracting from the value of hair mattresses, cushions, etc.

KERN.

Havilah *Miner* Jan. 4: Last week, after speaking of the inducements offered by our mining wealth to poor men, to come to Kern county, we promised that in this issue of the *Miner* we would show the agricultural inducements held out to poor men to emigrate to Kern.

First: Over half of this county is composed of fine agricultural lands, nearly all of which may be broken up, with a plow, and sown in cereals or tame grasses, or be cultivated in cotton, ramie and hemp—a great portion of which is also splendidly adapted both by climate and soil, to the growth of all the semi-tropical fruits, nuts and vines. These lands have as varied climates as their relative altitudes are above the level of the ocean, which runs from 370 to 5,000 feet above the sea. Of these lands not one-twentieth part are under any species of cultivation—not one fifth are occupied—and not more than one-half located and claimed,—full half being uulocated, and mostly unsurveyed, Government lands.

Kern Valley is that portion comprised between the Sierra and Coast ranges of mountains, is on an average fifty miles in width, and about sixty in length—commencing at the Tulare county boundary line and extending south to the Tejon range of mountains. Great bodies of this valley have been purchased by speculators, at Government prices, and can be purchased from them in smaller quantities—say from fourth sections, 160 acre lots, upwards—at from $2 to $5 per acre.

Kern Island is situated in this valley; it is probably the richest body of the land in the State, of the same extent. Scarcely one-fourth of this rich body of land is yet under cultivation, aud hundreds of moderate sized farms can be secured here at a few dollars per acre. There is no question but what in a few years the whole of this section of the valley will be covered with farms under a high state of cultivation and prosperous farmers. The Southern Pacific Railroad runs through the upper portion of Kern Island and in a few months will be fully completed along this district.

Here, then, is a splendid opportunity for a poor man, with a few hundred dollars, to lay the foundation of a permanent home, with the certainty of a fine competency, and, in all probability, a fortune.

Mountain Valleys and Basins.—In Kern county the Sierras are "broken down"—here it is, that at the southern boundary of the county, the Sierra and Coast ranges of mountains close and break up. All through the Sierras, in the gold belt we spoke of in our last issue, are iunumerable valleys and basins of rich agricultural lands, the greater portion of which have never been surveyed or located. The climate and health of these valleys and basins are unexceptionable; and all the fruits and cereals of the temperate zone may be here most successfully produced. Thousands upon thousands of acres of these beautiful lands are laughing, in Nature's primitive dress of grass, flowers and trees, at the indolence of man in not appropriating them to usefulness. A thousand beautiful and happy homes could, upon these vacant lands, be made by the mere location and taking thereof.

We say then to the poor men of the Sate; If you are miners, Kern couuty offers you inducemeuts that no other county iu the State can. If you are farmers, what county in California offers you such cheap and valuable farms and homes? Come and see for yourselves.

Southern Californian, Jan. 16: Home Improvements.—We are glad to observe the spirit of improvement and enterprise that pervades our people. Not only is this apparent in the erection of houses in the town, but it may be seen in the disposition to fence and improve the grounds in the environs, the planting of trees, shrubbery, etc., all of which indicates to the observer a determination on the part of our people to make for themselves homes and surround themselves with the attractions and comforts pertaining thereto. We may also discover in these things a perfect trust in the future and lasting prosperity of the place. Nowhere on earth has nature been more bountiful or beautiful in the character or extent of her resources. Trees and shrubbery require so little attention, thrive so rapidly and add so largely to the embellishments of home, that one is surprised to find that the advantages here presented have not been more generally appropriated.

MERCED.

Tribune, Jan. 18: Judge Stanley has nearly finished reclaiming about 500 acres of tule land on the west side of the river at Suscol. He has also about completed the erection of barns, sheds and necessary appurtenances for a large dairy.

A good article of salt is now obtained on the Rhodes marsh, north of Columbus, in the southeastern portion of Inyo county.

A breakwater would be of great value to the port of Santa Barbara. During the storm from the southeast the swell is such as to render landing at the wharf difficult.

NAPA.

Reporler, Jan. 18: Large Egg.—Yesterday Mr. J. S. Hogan showed us an egg from a Baahma hen, which should take the premium. The egg measured 9x7¾ inches. The hen was raised in Brown's Valley.

The weather for the last few days has been very fine. The roads are drying up rapidly and the hills are becoming green and crops are growing finely. It is fine Spriug weather.

The prospects for heavy crops throughout Napa county never before looked so flattering. Grain is up and growing finely, and larger areas are and will be cultivated than heretofore.

Tough Fish Story.—The Calistoga *Tribune* says that a sturgeon, measuring seven feet six inches, and weighing one hundred and fifty pounds, was caught in Napa Creek by Bob. Fouts with a hook, and sold in the Calistoga market. That hook should be sent to the world's fair.

Wine for St. Louis.—On last Monday Mr. C. Krug shipped a car load of wine and brandy to the St. Louis Agency of the Napa Valley Wine Company. In the cargo was one redwood puncheon, containing about 180 gallons, by way of experiment, to ascertain if wine can be shipped in redwood casks. If it can, the expense of casks for shipping will be reduced, at least one-third if not more, and all interested will wait anxiously for the report of its arrival in St. Louis.

Title Perfected.—The claim of some three or four of the heirs of Edward Bale, deceased, to a large portion of what is known as the Bale Graut, covering several thousands of acres of land, and upon which is situated the beautiful village of St. Helena, has been amicably settled. The occupants who had purchased their land many years ago, and by patient labor and expenditure of a large amount of mouey in beautifying their homes, rather than be harassed by a vexatious lawsuit, have agreed to pay four per cent. upon the assessed value of their real estate for the year 1872. Many have already paid their respective amounts and their deeds are upon record. Persons desirous of procuring beautiful homes in the garden spot of California, may do so now without the fear of a lawsuit before their eyes; We look for a large increase in our population next Spring and Summer, in consequence.

Napa Valley.—A line from John Allyn, Esq., of Oakland, who is stopping for a short time at St. Helena, Napa Valley, states that the weather is delightful, farmers busy putting in huge crops, the country prosperous and real estate high and rising. Next to Alameda county Napa valley is one of the most salubrious sections on the Coast.

NEVADA.

News, Jan. 18: Degenerate Braves.—The Piutes encamped among the hills about this place and Virginia no longer have visions of the chase, nor dream of the war-path and scalp-taking. They have thrown down the bow and gun and taken up the saw and buck, and their only raids are now made upon peaceful and unresisting wood piles. They have learned that with a four-bit piece they can get more meat than a hunt with bow or gun would produce in three days, and to their credit be it said, they are not too lazy to earn the four bits whenever the opportunity offers. The Indians in this neighborhood fare sumptuously every day, while it is very tight times with their relatives who still stick to their favorite haunts in the wilds of their native hills. For four bits they can get about as much cheap beef as they can pack away, and then the squaws have about them an insinuating way which causes the good housewife to come out liberally with all kinds of broken victuals. The bucks all have good warm blankets; the squaws good calico dresses, jackets, shawls and plenty of other clothing, while the little ones are all fat, ragged and saucy. The Piutes had no swords to "beat into plowshares," but they have done the best they could in that direction with the material at their command.

SANTA BARBARA.

Tree Planting.—An immense number of trees will be planted this season in this vicinity, and yet not half the uumber that ought to be planted. There are many shiftless people who own lands and town lots, but never attempt to set out trees, and who will let this year pass as other years have passed, without making a single effort to improve their lands or beautify their grounds. Their barren possessions are mute but speaking witnesses of their own uncultured natures, and proofs which cannot be denied, that they are, strictly speaking, mere cumberers of the ground. But as they hold their lands only for the greed of gain we can expect nothing more of them.

The big grapevine whose fame has attracted visitors from all parts of the country. Those who are familiar with the subject pronounce it the largest and most fruitful vine in the world. I learn from an European traveler that it is nearly twice as large as the famous vine of Fountainbleau, France. I was incredulous as to the reported size of this wonder, and so went to it, tape in hand, ready for a measurement. I find it fifty-five inches in circumference five feet from the ground—just beneath its point of separation into branches. It covers 4,800 square feet of trellis and has produced at a single crop 8,000 or 10,000 pounds of grapes. The maximum annual crop has been estimated as high as eight tons, and a most reliable authority puts it at six tons, so the readers will see that I am not disposed to strain his credulity. The vine is of the variety kuown as the Mission grape—brought by the Franciscans from Spain—and is thought to be about seveuty years old. For want of cultivation it is now rapidly declining, and is probably past saving—unless it be in Barnum's Museum. A younger vine on the same premises promises to take the place of the parent, and may, with proper care, surpass it. With less than one-third the age, it has already attained two-thirds the size of the mammoth vine. Fortunately this property—a small ranch attached—has lately been purchased from the Spanish owner by an energetic Buckeye, Mr. Sarver, of Canton, O., who, by improving liberally, will doubtless add beauty to the wonder of the place.

SAN DIEGO.

World, Jan. 11: The Lost Sheep.—When the schooner A. P. Jordan set sail from San Geronimo Island it was compelled to leave behind four sheep that succeeded in escaping from the corral in which they had been confined after their rescue from the wreck of the Sacramento. There is a bare possibility that the poor animals will live, as the island is but sparsely covered with a plant strongly resembling an ice-plant, upon which it is believed that they will browse. The heavy night dews and ocean fogs peculiar to all the islands along the coast may furnish them with an ample moisture to quench thirst, in the same manner as the numerous flocks on San Clemente Island are supplied, there being not a drop of fresh water known to exist on it.

SANTA CRUZ.

Sentinel, Jan. 18: Cool Nights.—Since the cessation of raius the nights have been very cool, with warm days. Spriug, however, is coming, and already the almond blossoms are falling, making the ground white under the trees.

Brook Trout.—We note several strings of brook trout, caught in neighboriug streams. The fish are full of eggs at this season. The new code will attend to these anglers, some of these fine mornings.

SAN JOAQUIN.

Republican, Jan. 17: Selling Poultry.—The manner in which live poultry, especially hens, is sold in this State, outside of large cities is not calculated to increase the breed of fowls, and works to the disadvantage of both producer and buyer. Fowls are sold to dealers by the dozen, the price ranging from $6 to $8 or $9 per dozen and no difference is made whether the fowls are large or small. It is well known that some breeds will weigh more when dressed or alive than others; but the method of selling by the dozen does uot encourage poultry breeders to produce the largest sized fowls, for they require more care, eat more than small ones, and do not fetch any higher price in the market, except rare fancy breeds that are bought by fanciers for speculative purposes. The same grievance prevails in the indiscriminate manner in which eggs are sold by the dozen, no difference being made for large or small ones, when it is well known that some hens lay twice as large and twice as heavy as others, consequently containing double the amount of nutriment. In other countries eggs are sold by weight, or at graded prices according to standard sizes. The manner in which we sell and buy poultry and eggs is absurd and unfair, and should be with as much propriety applied to potatoes, live stock of all kinds, etc., which are more properly sold according to weight.

Advertiser, Jan. 18: Valuable Sheep.—There arrived Wednesday at the Central Pacific Railroad depot, in this city, fifty head of Merino sheep, consigned to L. U. Shippee, who purchased the same from Severance & Peet. This small, but valuabl flock, was taken out to Mr. Shippee's farm on the Calaveras river Wednesday afternoon. They are from Hammond & Rockwell's celebrated flock which took the premium at the Vermont State Fair in 1872, and which likewise took the premium at the World's Fair two years ago. One of the bucks cost Mr. Shippee the sum of five hundred dollars. The sire of this buck, when two years old, yielded a fleece weighing 34 pounds and 10 ounces.

Cheapest Grain for Chickens.—Now that chickens raised the past season have attained the hungry age and the frost has somewhat diminished insect forage, the quantity of grain that will be disposed of by a large flock of young fowls is astonishiug. The question arises, What is the cheapest food (and the best, all things considered), that can be bought? The reply is, Indian corn. Give cooked and raw, whole, ground fine, and ground course, for the sake of change. It is the cheapest thing that can be bought, generally speaking, the amount of nutriment in it considered. But to give nothing but corn would be a mistake. It should predominate for economy's sake, but oats, buckwheat, wheat screenings, boiled potatoes, scraps from the table, and as many other things as possibe should be added to the bill of fare.

STANISLAUS.

News, Jan. 17: Planting Trees.—We notice that withiu the past two weeks there has been a perceptible increase over other years in the sale of all description of fruit, ornameutal and shade trees at this place. There is hardly a train arrives that does not bring more or less trees. This is certaiuly a most gratifying sign, and is a proof that the people are at last awakening to the importance of improving and beautifying their homes. There is also an evident sign of improvement by the planting of shade trees along many of the sidewalks of our town.

Rain Fall.—Mr. Dominicia, Weather and Crop Reporter for the Branch Township Farmers' Club, of this county, submits the following as to the rainfall at La Grange since 1867, and which through, an inadvertency on our part, was omitted from his published report of last week: In 1867, from October ending with December, 7 15-16 inches. From same date in 1868, the amount 3 4-16 inches. In 1869 it was only 11-16 of an inch. For 1870, during the same period, the amount was 2 3-16, and in 1872 the total for the same time has been 7 15-16 inches, making it the heaviest on the list. Of course it is reasonable to expect that the rainfall of the foot-hills has been little in access to what it was in the main valley. Still Capt. J. W. A. Wright, of Turlock, reports over 5 inches rainfall, at that place, some two weeks since.

Injured.—Last Friday as Mr. Barnes Potter was attempting to stop a team of run-away horses attached to a gang-plow, he was thrown down and badly injured by becoming entangled in the plows. For some time his recovery was thought doubtful, but his attending physician, Dr. Howard, reports that he is slowly recovering from his injuries.

YUBA.

Appeal, Jan. 18: Fruit Trees.—Phillips shipped yesterday to Joe Jasper, on Bear River, a large assortment of fruit trees.

Locust Trees.—Among the freight from San Francisco yesterday were a lot of locust trees.

Textile Fibers.

Jute Culture in the United States.

We find the following in the monthly report of the Department of Agriculture for December, 1872, which we appropriate and place before our readers, with no apology for its length, because of its immense importance to California:

Experiments in cultivating jute in the Southern States thus far indicate that both the climate and the soil are well adapted to its growth, and there is a fair promise that its production will become an extensive and profitable industry in that section. Its fibre supplies material in manufactures for which there is a rapidly increasing demand, and which, except to a very limited extent, does not take the place of cotton; while, therefore, it will not supplant the latter nor compete with it in the market, it may enlarge the area of profitable rural industry in the South. It is claimed that were the South to divide the labor it now bestowes exclusively upon cotton between that and jute, the result would be an increase in the value of the cotton crop, it having been proved that, beyond certain limits, an increase in the product occasions a diminution in the total value; that it supplies the raw material for coarse fabrics, which are now largely imported by the cotton growing States, but which might be manufactured by their unskilled female laborers at a saving of millions; that it can be raised and prepared for market at a greater profit per acre than cotton.

The following communication has been received from Mr. E. H. Derby, of Boston, who is an enthusiastic believer in benefits to result to the South, and so to the whole country, from jute-culture:

"As the jute-plant has been acclimated in the Southern States and I have exerted myself to aid in its introduction, many questions have been addressed to me from the South as to the culture and harvesting of the plant. I have consequently written to a friend in India, and subjoin extracts from his reply, which will be useful to the planter if published in your valuable report. I am convinced by this reply and by other letters from the South that the rich lands of Florida, Louisiana, Texas and Mississippi, will, with fair cultivation, yield 3,500 pounds, or ten bales, of fibre to the acre, in place of one-tenth of that amount of cotton. I am convinced also that it can be produced at less than one-tenth the cost of cotton, that the caterpillar will not touch it, and that if planted around the cotton fields it may possibly protect them from that voracious insect. I am also led by my letters to hope that it will attain to its full growth in three or four months, and that the same field may yield two crops in one season. I have just returned from Scotland, where I visited the jute factories in the flourishing city of Dundee, where the import and manufacture of jute is making wonderful progress.

The subjoined table gives in tons the import and manufacture of jute in that city since 1837:

	TONS.
In 1838	1,146
In 1847	6,966
In 1854	15,590
In 1872	96,009

Since 1854 the increase has been about 500 per cent., and in this interval of time the cotton manufacture has not grown at one-fifth of that rate. Some of the jute-yarn which I saw at the factories is spun very fine and sold for 8 or 10 cents a pound. It is used for bags and carpets, and some of the latter, handsomely colored, have sold for 16 cents per square yard. It is also interwoven with silk, linen, and woolen threads into cheap cloths.

By the subjoined extracts you will notice that the jute-seed from one acre will suffice to plant fifty acres, and that the plant is usually grown several weeks before the seed ripens. I suggested this idea last summer to Mr. Chapman, of Point Coupee, but presume that most of our planters have this year allowed their seed to ripen, in which case they may have plenty of seed but inferior fiber, and possibly require the ramie-machine to separate the fiber from the stalk, and possibly thus make it available for coarse if not for fine fabrics. The progress of events convinces me that the jute is just what the South requires to diversify its industry and to fill up the gap when cotton is a failure. With the growing demand for it, jute promises to pay much better than cotton.

I noticed in the jute-mills at Dundee that after the jute was sorted a woman placed a layer of it on the floor, then sprinkled it freely, first with water and afterward with oil; she then placed another layer over that and sprinkled it in the same manner and so piled up layer upon layer. This sprinkling was before the fiber was spun.

An extract from the reply above mentioned is given, as follows:

"The quantity of jute and seed produced to an acre depends greatly on the richness of the land it is planted on. Serajgunge, Dacca, and other northeastern districts, where about four-fifths of the total crop are raised, produced from 2,000 to 3,000 pounds of jute on an average; in some cases, however, as much as 4,000 pounds are produced. The yield of seed is about 1,000 to 1,200 pounds per acre. In the country fifty miles around Calcutta, the production of which is called dessee or country jute, the yield is smaller, being only about 600 to 1,000 pounds of fiber, and more seed, say 1,500 to 1,600 pounds per acre, but on rich, damp lands the product is almost as much as in the northeastern provinces.

The dessee discription was used only for local consumption until about five years ago, when shipments of it to England began, and both the shipments and production of it are increasing every year. Jute is sown broadcast, and about 22 to 28 pounds of seed are required to an acre. In the northeastern provinces it is planted in February and March, and is cut about the end of June and beginning of July; the dessee is sown in July and cut in August and September. On rich land it grows and ripens quicker. In the northeastern districts, when grown on rich soil, the diameter of the stalk at the bottom is from three-quarters of an inch to one and a quarter inches, and the length from 7 to 10 feet, and sometimes, but rarely, longer and thicker. The country jute is 4 to 7 feet long and one-half to three-quarters inch in diameter. The plants are cut about 3 inches above the ground, excepting dowrah, which is uprooted. The butts are cut at the time of baling the jute for export in Calcutta.

When the stalks are cut they are covered with a green bark, which, after going through certain processes, becomes fiber. The planters cannot tell at the time of cutting the stalks whether any, or how far from the bottom any will be hard. The stalks are cut about a month before the seed ripens, and the poorer plants are generally let go to seed. Jute made out of the plants producing seed is hard and harky. The unripe seed cut with the stalks is of no use. It grows best on rich, moist ground, but not on low ground. Castor-oil cake is the best for it, and next to that cow-manure; but the country planters, as the ground is naturally rich, use no manure whatever. An acre of cotton costs much more than an acre of jute. Jute and cotton do not interfere with each other in the least.

The following extracts from correspondents give the results of their own experiments in growing it:

Orange County, Florida.

I plowed up and thoroughly prepared a half acre of medium grade pine-land, and sowed the jute in drills May 23. It came up well, but owing to the excessively hot, dry weather it all dried up. On the same day sowed a small plat in a hay-head. It came up and grew finely. I am now gathering the seed. Some of it is 12 feet high, and all as high as I can reach, showing that on damp, rich soil it will here succeed finely. This hay-head is muck, several feet deep, which I cleared off and limed two years ago. Upon it bananas grow from 12 to 15 feet high.

Muscogee County, Georgia.

I consider the experiment in jute-raising a success. The cultivation is simple and the cost of production small. I had seeds sown broadcast on broad beds; some on sandy river land, and the rest on stiff clay land. The latter did very much better than the former. The cultivation was the same, but many of the plants on the sandy soil died out after having attained their full growth, while those on the clay lands remained green and vigorous and matured their seed. The plant requires moisture. The seed was sown in May, and the plants could have been cut in September. A frost on the 15th of October, which injured the cotton, did not leave its mark on the jute. It attained the hight of 15 feet, and in appearance somewhat resembles a plantation of young peach trees before being removed from the nursery. I had the plants cut in October and steeped ten days in stagnant water, after which the fiber was easily stripped off.

New Orleans, Louisiana.

Jute-seed received from the Department of Agriculture was planted on the 11th of April. The soil was well plowed and harrowed and in good condition. Patch No. 1, rich soil, 3 feet above ordinary gulf tide, planted in drills 3½ feet apart; patch No. 2, very rich soil, 1 foot above tide, planted in chops 4 feet by 2½; patch No. 3 same as No. 2, planted broadcast; soil very dry at planting. Seed covered one-half inch deep, did not germinate until rain on the 22d of April. May 12. Passed the cultivator through patches 1 and 2. May 27. Chopped with hoe the large weeds from the same; jute 2 feet high; no further cultivation. Patch three received no further attention after planting. Almost continuous drought this summer; jute suffered but not so much as corn and other crops. July 10. Cut a portion of patches 1 and 2, 9 and 10 feet high; put the same in bayou-water for seven days, and got beautiful fiber the entire length of the plant. July 15. Planted again the land which was cut on the 10th. At this date, October 10, this second crop is 8 feet high, looking well, although it has suffered much from excessive drought. Wishing to save as much seed as possible for a more extended planting the next season, I could afford but a fractional part of an acre on which to arrive at some idea of what amount of fiber we may expect per acre. On the 28th of August I cut a portion of patches 1 and 2, plants measuring from 11 to 13 feet; seed-burs about half grown. (This was in accordance with direction in Agricultural Report of 1871, page 172.) The quantity of fiber saved satisfied me that the yield of these patches would be quite equal to 4,000 pounds per acre.

Patch 3 broadcast, is exceedingly dense and heavy; portions being matted with native weeds, it is impossible to make a reasonably accurate estimate of yield per acre.

Some of the July planting, second crop, is now fully matured for fiber; some planted the first week in August will make a full crop, unless the frost is unusually early. Inquiries from South Carolina to California are being made of me for seed for next season. I have none to spare. Mr. Chapman, of Red river landing, is asking $5 per pound. He has two varieties, the pod-bearing and the bur-bearing seed. The pod-bearing variety he thinks much superior to the other. This he got, I think, three years ago, from the Department of Agriculture. The seed the Department sent out last spring was exclusively the bur-bearing, which is brown in color, while pod-bearing is green. I have some plants which have been flooded constantly for two months now seeding in six inches of water.

Charleston, South Carolina.

I have done what I could to encourage experiments with jute, and have distributed hundreds of packages of seed raised by myself. Experiments have been in the highest degree encouraging. The plant seems to flourish quite as well as in India.

Mr. H. H. Stevens, of Webster, Worcester County, Massachusetts, a manufacturer of jute imported from India, to whom this Department sent a sample of that grown in Louisiana for examination, reports that in length, strength and color it is fully equal to India jute. He adds;

"The Department should do all in its power, and, if necessary, ask of Congress more power and more money, to extend the culture of this fiber in the country. Twenty-seven years ago, in Dundee, Scotland, the question was, whether there was any value in jute. To-day, of an export from Calcutta of nearly, if not quite 3,000,000(?) bales per annum, Dundee consumes a large share."

The Department has received from gentlemen in Louisiana and Georgia very encouraging accounts of their experiments, together with specimens of the jute-fiber which they have produced. Mr. Thomas H. Dunham, of Boston, to whom a sample was forwarded, writes as follows:

"The quality is very superior. The market is just now depressed very much. Some parties here have lost heavily on imported jute-butts, and this season (before the fire) India goods were imported at immense loss. The present rate is 6 to 8 cents a pound (gold); the usual rate 10 to 13 cents (gold). Your sample is very superior and at 10 cents (gold) it would be safe to quote.

You will understand that our merchants do not favor home-growth of jute, or rather, make light of it; but my advice to you is, leave no step possible to push the jute-growth; make every effort to get it raised here. Beyond and above all obstacles push it on. The country will sustain this to any extent. The motive is greater than you can have any idea of. The moment you get the growth started, you will be fully assured, as capital will follow quickly, as in cotton.

Suppose it were a new growth of cotton, no one would doubt the success, or the aid needed. Our growth of jute will nearly equal half the cotton-crop. We can cut off India supplies, as we have done in cotton.

The interests of our merchants are so interwoven with India importations that they will (as they do) say, "You will never get any quantity grown," and make light of it. But your sample shows that its cultivation is feasible, and it must pay when the market changes. All orders to India are stopped now, and the revulsion will bring jute higher here, within the next year, than it has ever been."

We can see no reason why jute cannot be grown as successfully in California as in any Southern State of the Union, and we would urge upon our farmers, and particularly those upon tule lands, to make the experiment of its growth the coming summer; and to those desiring to do so, we remark that seed can be procured, without charge, of the California jute company, of San Francisco, by addressing P. Susmann, Secretary, No. 21 Battery street. In our 14th-of-December, 1872, No. of the Rural we gave an extensive notice of jute culture, from the Agricultural Report of 1871, to which we refer our readers.

Preparing Ramie for the Market.

Eds. Press:—For the last three or four years California and other newspapers have contained notices of the ramie plant and fiber like the following: "The fiber of the amie plant is undoubtedly superior to any other of vegetable origin. It has a fineness equal to cotton, a length and strength superior to flax, while in luster and brilliancy of coloring it is equalled only by silk. In addition to this it is one of the most hardy perennials of a vigorous growth, and under suitable conditions produces from two to five crops in a year." Such is the general tenor of articles on the ramie, but they all wind up with, "though the ramie grows abundantly, we have no machines that will prepare it for market at a cost that will permit it to be grown with profit." They always, however, express the firm belief that the "Coming man" with a ramie machine is close at hand.

Something over a year ago, being moved by philanthrophy, national pride—or, perhaps by a desire to make a little money, I commenced making a machine for the purpose of cleaning ramie. As the work progressed towards completion I was cheered by remarks like the following: "If you can get it to work all right your pile is made; we shall have ramie until we can't rest." Others said, "If your efforts should ultimately be crowned with success, should you be able to solve the problem of preparing our ramie for domestic and foreign markets, the amount of ramie that is available is immense, and in a short period will supplant the cotton trade with an increased volume, and you will be known in history as a benefactor of the human race like Fulton and Whitney."

After considerable time and many experiments I completed my machine, but to my surprise I have not been able to obtain the plant only in very limited quantities—a few tons at different times. Though agents of purchasers examined the fiber after being cleaned by my machine and were prepared to buy if they could get it, I found that the owners of the plants preferred to lay down the same for propagating young ones, rather than work them up for the fiber.

I am now ready to clean Ramie either for a given price per ton, or for a portion of the fiber in lots of not less than fifty tons of the green plants, delivered at the Miners' Foundry in this city.

If any have large crops that in amount will warrant it, I will take the machine to the field where it is grown, and clean it on the ground.

I am also prepared to furnish large or small machines to parties desiring them at short notice. Yours respectfully,

Wm. M. Hughes.

San Francisco, Cal., Jan. 11th, 1873.

We have examined the machine above referred to, and invented by W. M. Hughes of this city, for dressing Ramie, and from seeing it in operation believe that it fully meets the wants of ramie growers. It separates the fiber from the bark, wood, and mucilage without breaking it and with less loss than by hand cleaning.

The machine weighs about seven hundred pounds, is very simple, compact and evidently durable; requiring about the same degree of skill to operate it as a reaper or mower machine.

One of the smallest size will clean one thousand pounds per hour of the green plants requiring two or three men to attend it; but large ones, of many times this capacity, can be constructed requiring a proportionate number of men to operate them.

Owing to the peculiar arrangement of the fiber and the stalks, the ramie is the most difficult to separate from its refuse without loss or being injured of any of the fiber-bearing plants, but this machine appears to do it effectually, and we should think would also be well adapted to cleaning hemp, flax, or any similar plant having a large fiber.

Corn for Fuel.

Among extracts from correspondence in the December report of the Department of Agriculture we find the following:

Pottawattamie County, Iowa.—Iowa coal is worth $7 per ton; wood from $6 to $7 per cord, according to quality. People are burning a good deal of corn; think it as cheap at 18 cents per bushel as corn or wood, while it is clean, neat and handy; no dirty hands and no chopping with dull axes.

Harding County.—We had an immense crop of corn in 1871, and nearly as large in 1872. At the gathering of the last crop there was corn enough to answer the wants of the country until the harvest of 1873. Thousands upon thousands of bushels that were purchased by dealers and shippers last year have been held over, as there has been no time since the harvest of 1871 when it would pay to shell and ship it. Large quantities are now being burned for fuel, as it is thought cheaper to burn at 15 cents per bushel of 75 pounds on the cob, than wood at $5 to $6 per cord. A perpetual or "draw" lime kiln, running night and day, burned large quantities the past autumn with very satisfactory results as to cost, and an extra quality of lime over that burned with either coal or wood; so the proprietor informed me. I myself sold to him old corn at 20 cents, as preferable to the present crop at 15 cents. He ships to the whole west half of the State, to the Missouri River, and even beyond to Dakota.

How to Please.—I want to tell you a secret. The way to make yourself pleasant to others, is to show them attention. The whole world is like the miller at Mansfield, "who cared for nobody,—no, not he,—because nobody cared for him." And the whole world would serve you so, if you give them the cause. Let every one see that you do not care for them, by showing them what Sterne so happily called the small courtesies, in which there is no parade, whose voice is too still to tease, and which manifest themselves by tender and affectionate looks, and little acts of attention, giving the preference in every little employment, at the table, in the field, walking, sitting and standing.—*William Wirt.*

The Signal Service.—A suggestion has been put forward, that telegraph wires be extended to all the lighthouses on the coast, and that a system of signals be arranged to be exhibited from the lighthouses to give notice to passing vessels of approaching storms or changes of wind.

Useful Information.

Washing Wagons.

Washing wagons is too often looked upon as an operation solely for the purpose of removing a coat of mud; this is one of the objects, and an important one, but the wagon should be washed even when there is no mud on it. During the summer the varnish loses its lustre and assumes a dull, dirty appearance unless it is frequently washed. When a wagon is badly covered with dirt it is best to soak the dirt loose by wetting it with a large sponge, but not rubbing it.

In cities, where water can be forced through a pipe, the spouge need not be used until the bulk of the dirt has run off, then use the sponge, commencing at the upper portion of the body, and do not wash over too much surface at a time, as the water should never be allowed to dry on the body; after washing with a sponge, take clean water and a chamois skin, and wash, and dry immediately with the chamois.

After the body is washed, wash the carriage part and then the wheels; in washing the wheels be careful to clean out the dirt from between the spokes and wipe perfectly dry. Immediately after using a carriage in hot weather the leather and trimmings should be dusted off, and the paint well washed and wiped as directed, using soft water if possible, but never using salt water, as has been recommended by some who are afraid that the supply of water will give out in many of our cities if it is used for other than drinking purposes.

Careful washings will tend to harden the varnish, remove the particles of dust that would otherwise bed themselves in the paint, and keep the carriage fresh and clean. The leather top should also be wiped off, and if an oiled cloth be rubbed over immediately after the leather has been dried with the chamois, it will do much towards preserving the lustre of the leather and prevent it getting hard and shrinking. After washing, always rub the plated work with a woolen cloth that has a little rotten-stone on it. Many a dollar in expense and much annoyance from having a soiled carriage may be saved by thus caring for it.—*Carriage Journal.*

Preparation of Wax for Polishing Furniture.—Eight parts of white wax; two parts of resin, and one-half part of Venitian turpentine, are melted over a slow fire, and the mass, when quite melted, is poured into a sufficiently large stoneware pot, and while it is still warm, six parts of rectified turpentiue are stirred in. After the lapse of 24 hours the mass has assumed the oonsistency of a soft butter, and is ready for use. The furniture to be polished must be previously carefully washed with soapy water; then, when the surface is quite dry, a small portion of the polish is taken up with a woolen rag and rubbed over the wood, at first geutly, then more strougly. When the polish is uniformly laid on, after au interval of a quarter or half an hour, the surface is once more rubbed with a fresh clean rag. Iu this way the furniture receives a fine gloss, if not quite as brilliant as a shellac polish. The advantage of the polishing wax is the facility of its application, as it may be used without difficulty by any one, and the polish is not wasted by the spread of oil, as so freqnently happens with ordinary polish. A further advantage consists in this, that when the furuiture is soiled the polish may be cleaned in the simplest way like a coating of lac, and by repeating the above operation, a new polish is obtained each time. For small articles of furniture this polishing wax deserves a wider application than it has hitherto met with.—*Cabinet Maker.*

A Safe Coating for Copper Vessels.—Take twelve parts of fluorspar and as much unburnt gypsum, and add one part of powdered borax. Fuse this mixture in a crucible. Pour the fused mass out, and after it is cooled grind it fine with water, so as to form a thin paste, with which the inside of the copper vessels is to pe painted. After this they are set away iu a warm place till the paiut is dry. When it is thoroughly dry, the vessels are baked in an oven till the coating is fused. Ou cooling, they will be found coated with a smooth, white, opaque enamel, which adheres strongly to the copper and protects it from the action of all the vegetable acids.

To Case-Harden Wrought Iron.—To case-harden wrought iron, take prussiate of potash, fiuely pulverized, and roll the article to be hardened in it if its shape admits; if not, sprinkle the powder on it freely, while the iron is hot. This is applicable to iron axletrees, by heating the axle red with heat, and rolling it in the powder spread out for that purpose, turning it up quickly and pouring cold water upon it; then dip it in cold water as quickly as possible. The axle can be used for years without showing wear.

Number of Locomotives.—Some of our principal railways have one locomotive for every two miles of the track, others oue for every three, four, five, six or seven miles of track; smaller roads vary from one for ten to one for fifteen miles of track. Taking oue to five as the average proportion, 10,000 locomotives may be assumed as the number in use in the United States.

A Railway Accident Explained—Stopping Railway Trains.

By a recent accident on the New York and Oswego Midland Railway, a freight train was completely wrecked. The accident took place while the train was running at a speed of from twenty to twenty-five miles an hour on a down grade. The train consisted of the locomotive and tender, two box cars, then two empty platform cars, followed by twelve or fourteen cars loaded with coal and other freight. The brakeman states that accerding to orders on down grades, he set the brakes on the box cars in front, and had just put his hand on the brake of the first platform car wheu he saw the second platform car was off the track. In a moment more it was thrown athwart the track, and a general crash ensued.

Among the reasons assigned for the accident was the stereotyped one, "broken rail;" also slipping of a wheel on its axle; also dropping down of a break. But Mr. Alfred Hawley, superintendent of the machine shop, who made a careful examination of the track and remains of the wreck to ascertain the correctness of these alleged reasons, gives a different report. He found the rails and road bed in perfect order, and no iudications of a dropped brake or slipped wheel.

What then was the cause of the disaster? What caused the middle portion of a traiu to leave the track on a straight, level, well lined, well ballasted portion of the road? The accident was caused by an improper application of the brakes to the forward part of the train when running at a high speed. The checking of the front part of the train cansed the heavy rear cars to crush against the light platform cars and lift them from the track. It is more than probable that many railroad accidents have been brought about from a similar cause. The breaking of a train should be commenced from the rear, when the work is not done simultaneously throughout all, or at least a large portion of the cars.

Indian Corn for Brewing Purposes.

The use of maize as a substitute for barley in the manufacture of beer, is discussed among brewers in England. Barley is unquestionably thus far the best beer-making grain prodnced. The principal reason why it has such advantage of other grains, is that its husk prevents the starch, which is converted into sugar in the process of malting, and then into alchohol during fermentation of the wort, from escapiug into the steep, while it allows the water to pass to the starch with sufficient facility. With oats, for instance, the husk is thick, aud consequently, the germination is slow, aud as the eud of the kernel is open, so much of the starch escapes into the steep water that the use of this grain is uneconomical as compared with barley.

At the ordinary relation in price betweeeu barley and other grains, barley contains, in a form to be readily and economically utilized, more of the sugar-formiug material than can be obtained from any other cereal at the same outlay; besides which, it makes, when properly worked, a better quality of beer than other grains. But the high price of this grain has stimulated investigation as to a possible substitute, and an extensive Loudon brewer has introduced to the attentiou of the trade the subject of the use of maize malt, combined with a certain proportion of sugar, in the manufacture of beer. He recommends its use especially in the manufacture of brown beers. He has beeu using it for a cousiderable period aud says that it produces a full bodied, soft drinking beer, equalling in his opinion, if uot surpassing that brewed from barley malt alone. It is now recommended for the manufacture of pale ale. At present prices in Eugland it is claimed that a saving of about fifteeu per cent. may be effected by this use of maize malt and sugar.

Paper in the Arts.—Inventors have not yet done experimenting with paper; for some time past they have been trying to make it useful for dondow shutters. The preparation used is the ordiuary paper pulp, brought by pressure to the utmost compactuess and solidity, with the lightest possible sheet-irou or other casing, to insure stability. This preparation has been brought to a high degree of perfection in Japan, where they are much more skillful in the uses of paper than we are, adapting it to all sorts of articles for domestic use, being as it is claimed, water-proof, weather-proof, aud fire-proof, not liable to breakage like crockery from careless handling, nor in danger of corrosiou, like most of the metals, from exposure. The material has been used to some extent in this country for furniture, clothing, car-wheels, and many other articles out of the ordinary course ot things. As the stuff will not burn, the iuventors expect to turn it to use as a new safeguard against fire.

A series of experiments have recently been made by an English scientist to determine the degree of corrosion of iron plates in sea water alone and in coutact with other metals. For equal services and equal lines he obtained as results the following: Iron aloue, 8.63; in contact with brass, 29.64; in contact with tin, 74.71; in contact with gun metal bronze, 65.39; in contact with copper, 42.79; in contact with lead, 47.90.

Good Health.

Symptoms of Fish Poisoning, and Treatment.

It is known to most persons that even fish reckoned wholesome as food, now-aud-then when eaten, produce the effects of virulent poison. It is probable that most unpleasant consequences are sometimes experienced when the cause is never suspected. The most common symptoms of fish poisoning are dizziness, dimness of sight, giddiness, palpitation of the heart, and a feeling of weight and heat in the stomach and abdomen. Obliged to assume the recumbeut position, the patient notices an itching of the skin; the face, and other parts, presenting red or white blotches, surrounded by a crimson ring. In the palms of the hands and soles of the feet the itchiug amounts to a burning sensation, and if these parts be immersed in water there is a feeling of tingling, which is regarded as characteristic of the disease. Pains in the limbs and at the joints are also commonly present.

In cases likely to prove fatal there are intense abdominal pains, dysenteric symptoms, and often couvulsions. When convalescence begins, the scarf skin peels off as after scarlatina, and the hair, aud sometimes even the nails drop off. The effects are often felt for years, and disappear only by degrees, and after removal to a cold climate.

A word or two regarding treatment. We must, in the first place, attempt to get rid of the poisonous matter by clearing out the stomach with an emetic, of a scruple of sulphate of zinc, or of a large teaspoonful of powdered mustard in a tumbler of tepid water. Dilutent drinks, such as barley water, or toast and water, should then be freely given, after which, if the patient be not too prostrated, a dose of castor oil will serve to expel any noxious matter that may have got beyond the reach of the emetic. The poison having thus, as far as possible, been evacuated, its effects must be combated with stimulants, such as coffee, wine, and alcoholic liquors. If the vomiting and intestinal pains do not yield to this treatment, opium, especially in the form of Dover's powder, in doses of five grains or more, three or four times a day, should be given.—*Druggist's Circular.*

Taking our Food.

An intelligent sea-captain hailing out of New Bedford says: "I have made several voyages to St. Petersburg, in Russia. The people of Russia generally subsist, for the most part, on coarse black rye bread and garlics. The bread is exceedingly coarse, sometimes coutaining almost whole grains, and it is very hard and dry. I have often hired men to labor for me in Russia, which they could do from sixteen to eighteen hours, and find themselves, for eight cents a day, the suu shining there sometimes twenty hours a day. They would come ou board in the morning with a piece of their black bread, weighing about a pound, and a bunch of garlic as big as one's fist. This was all their nourishmeut for the day of sixteen or eighteen hours' labor. They were astonishingly powerful and active, aud endured severe and protracted labor far beyond any of my men. Some of these meu were eighty and ninety years old, and yet these old men would do more work thau any of the middle-aged men belonging to my ship. Iu handling and stowing away iron, and in stowing away hemp with the jack-screw, they exhibited most astonishiug power. They were full of agility, vivacity and even hilarity, singing as they labored with all the buoyancy and blithesomeness of youth.

Dr. Dio Lewis in referring to the above says: We Americans eat too much animal food. In consequence, many of us are feverish and prematurely old. During the cold seasou hard workers need meat, but on'y once a day. Beef and mutton are best. We think a majority will do well to take this meat for breakfast.

We have now for a few months been living in the following way, with great satisfaction: We breakfast at seven o'clock, aud fill our stomach with solid beef and bread. At one o'clock we take a dish of oatmeal or an oyster stew, without milk or butter. Nothing more till next morning. By this plan we can continue our mental labor during the afternoon with no more inconvenience than in the morning. With the accumulated vigor of the night's rest and sleep, we can digest the hearty breakfast without heaviness, even while we are using muscle and brain. We have recommended this plan of living to several editors and other literary friends, and most of them have reported to us perfect satisfaction. One gentleman says, with enthusiasm, that he finds in it a gain in flesh and complete relief from the headaches, heaviness and other discomforts which had grown to considerable proportions. This all means that, with the large vital force of the morning hours, we can digest a strong breakfast and at the same time carry on intellectual aud physical exertion, but that when the vigor from the night's sleep has been partly expended and we come to the dinner, a hearty meal takes so much from the brain that dullness is inevitable.

To Mothers.

In the management of your little ones, nobody doubts your readiness to sacrifice yourselves for them; but your methods, the wisdom of your service, may often justly be questioned.

At this time we ask your attention to a suggestion or two in regard to yonr methods of feeding your babies. You know how vital *regularity* is with us grown people. We may take the plainest food, and in moderate quantity; if no attention be paid to times and seasons, our digestion will soon be deranged. A man may eat nothing but beef and stale bread, the two best articles of food with which we are acquainted, and he may take them in proper quantities; in a month he will have dyspepsia if he constantly changes the hours of his meals. It is not the *kind* of food we eat at railroad stations, but the irregularity of the hours of eating, which so deranges our stomachs. Now we all know this to be true of ourselves—grown-up, matured, tough people; we believe it to rest upon a physical law. And, in view of this law, let us consider how you feed your baby. You put it to your breast whenever it is uneasy. No matter what makes it cry; if it is hungry, or cold, or has a pin stuck in its back, or is surfeited and has the colic—no matter what may be the cause of its crying or worrying—you treat it with the same remedy—a dose of milk. The little thing does not know that milk is bad for it, and so it goes on sucking. It has learned to do but one thing—to suck; and in its eagerness to get relief it will do that thing fifty times a day. In this way it is made feverish and thirsty. Its little pulse will run up to a very high rate. It is suffering with thirst. Like all creatures with thirst, it needs water. Nothing could be worse than milk. It is poison even to a stroug man with a fever. What do you give your baby with a fever? One thing, and one only, and that is milk. Milk, milk, is the food and drink of every baby, given to it five, ten, twenty or fifty times a day, just as it happens. At night it is coaxed to dine every time it wakes up.

A baby six to twelve months old should be nursed about eight o'clock in the morning, and it should have time to get all it wants. Every three hours, till bedtime or nine o'clock at night, it should have a good meal, which should be given with perfect regularity. During the night, nothing whatever. In a month the baby will not only become accustomed to this, but upon this system the little chap will flourish as he never did before. More than half of the stomach and bowel diseases, fevers and fits, from which babies suffer and die, come from irregularity and excess in feeding them.—*Dio Lewis.*

Stomach and Brain.

If it be true—and we suppose it is—that the stomach and the brain are so interrelated that the condition of one organ defines the state of the other, then the man who teaches us the proper laws of cookery must be regarded as a benefactor of his species. One of our leading literary journals recently declared that more good food is worse wasted in this country than anywhere else on earth, and the fact is admitted by all who have had the opportunity to break bread at European tables. It is a proverbial saying that a Frenchman will get three courses out of a bone, and the economies of the German are almost equally famous. The dense populations, the low wages and the distinctions of classes in Europe compel the people to make the most of what they possess. There is very little waste, and hardly any trace of the tendency to dyspepsia which is so peculiar to Americans; and human life is longer and happier in consequence. Our people, bent upon getting through the world in a hurry and generally careless of their diet, might learn something from the Englishman, the Frenchman and the German, and even from the stolid Indian of the far West. Better methods of cooking, less haste in eating, and smaller consumption of unwholesome articles of food, would uot only lengthen the average term of life in this country, but also by giving the American stomach better treatment than it now receives, and improve the quality of the American brain.

Take Care of Your Health. — Girls, take care of your health—it is your capital in life. With it you can do great and noble things; without it, the little duties of life become a burden, and your time, which should be spent in good works, must be given to your own personal wants. Do uot think that exposure will not injure you beca se you do not suffer at the time. Do not go, with only a thin gauze covering over your shoulders, in the night-air. Do not change heavy shoes for thin ones, to go riding. *Follow no fashion that injures the health.* If you want to be old and broken-down at thirty, pay more attention to what some unscrupulous leader of fashion says than to Nature's laws. Loosen your clothing about your waist. Draw in a long breath, and, if your clothes press against you, you may know they are worn too tight. They can be worn sufficiently loose only by letting the weight come upon the shoulders. If you would have a clear, fresh complexion, free from eruptions, give your blood a chance to circulate and purify itself.—*Ex.*

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SAN FRANCISCO:

Saturday, Jan. 25, 1873.

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Send in the Names.

Friends who have been getting up clubs for the RURAL PRESS, are requested to send in the names as fast as paid, without waiting to complete the club. The lists should be completed as soon as possible.

MEETING of the Oakland Farming Club, Jan. 24th.

HANDSOME ALBUMS.—We saw recently, at the bindery of Messrs. Bartling & Kimball, corner of Sansome and Clay streets, some remarkably fine specimens of book bindery. The books were made for Watkins, the well-known photographer, and were intended to hold large views of Yosemite and other California photographs. The binding was in gilt and heavy morocco; in the center of each on the outside was a panel of California laurel, brightly polished, making a handsome and peculiar finish. The books are very large, admirably adapted for the purpose and prove that our California binders can do fine and substantial work, equal to any in older countries.

APPRECIATION.—It is pleasing to us at the beginning of a new year to know that our past efforts are appreciated by those to whose interests the RURAL is especially devoted; it gives us confidence and encouragement for continued effort.

EDS. PRESS:—I embrace this opportunity to send my thanks to you as a citizen and farmer of this State, for the valuable paper you furnish us, and the earnest endeavor you are making for the co-operation of the farmers, for the promotion of their general interests.

E. S. B.

WOOL REPORT.—A general review of the wool product of California will appear next week.

Transplanting Trees.

All trees should now be planted as soon as possible, and while the ground is most moist after the late beautiful rains. To delay is only to incur more expense and labor. When the soil becomes drier, the holes have to be dug deeper and wider, more pains have to be taken to ensure success, and water has to be poured over the roots before the final filling up of the holes. Besides at this time there appears to be rather a superabundance of young trees of all kinds among the nurserymen, and before next season, as is usual, there will probably be a reaction, and nursery stock will be scarce; and therefore commaud a higher price. In addition to what we have said the general success of transplanting depends mainly on two prerequisites—young trees well taken up and in good condition, and a good well prepared soil to set them in. If dug last fall, and properly heeled in, they will be in excellent condition for setting out for some time to come if planters can not possibly now spare the time. If not dug till spring, they should be taken up immediately, or before the buds swell and the young roots start, and heeled or buried in until wanted for transplanting. This is much better than taking them up later, as they meet with less check in growth. We have known trees thus treated to succeed well, even when set out several weeks afterward, when trees generally were in full leaf. It is, however, quite essential that they be well taken care of, by not allowing the roots to become dry for an hour, and by filling in all the interstices among them with fine earth; when heeling in, as well as setting out. It is very common, we have observed, for such trees to be spoiled or ruined by leaving the roots exposed a day or two to the sun or drying air, and then burying them badly by throwing on lumps of earth or large masses by the shovelful—leaving vacancies all through the lower parts of the roots. A good soil for trees is, of course, important, especially one that has a good natural or artificial under drainage, but it is still more important if possible, that it be in a good mellow condition when they are set out, and that it be kept so throughout the season. Observe the following directions in setting out each tree, namely: to spread out the roots in all directions, like the arms of an extended umbrella. This will stiffen the tree against the wind, and give the trunk an upright, stout growth, and to fill in fine earth so that there will be no crevices. It is well to settle the soil among the roots, by pouring in water till the hole is partly filled, unless the ground is as wet as it is at present. If the tree is large, and the roots small (a bad disproportion though,) it will be necessary to stake the tree against the wind; but not otherwise.

As all newly set trees require some small shortening back, both for the purpose of forming an even, well-shaped head, and for lessening the number of leaf-buds, so as to correspond with the necessary lopping of some of the roots, careful attention should be given that this cutting be done before the buds swell or expand. If done afterwards it checks growth, and has induced some persons wrongly to suppose that cutting back is always useless or hurtful.

It sometimes happens, in setting out young orchards, that it is inconvenient to prepare the whole surface of the ground for young trees that are to occupy it at distances of thirty or forty feet. It answers, we think, about as well to plough some six feet wide, where the rows are to stand, and plant the trees in the middle of these strips, which are to be kept clean and mellow through the season, either by planting with potatoes, beans, beets, or cabbages, or by leaving it unoccupied by any crop; but our soil and climate will generally well bear some crop or other. The wide spaces between the rows may be planted with many suitable things, sown with grain, or occupied with alfalfa, provided that in the latter instance, rather more breadth is given to the cultivated strips in which the trees stand.

SUBJECTS FOR DISCUSSION.—We would like to have the readers of the RURAL send in subjects for discussion, for the Farmers' Clubs throughout the State. Let us have a subject now and then, that will be taken hold of by any Club, just to see how it will get handled. We will publish the subject, and then the different clubbings it gets, which will doubtless be interesting if not highly instructive to many.

Horticulture.

On one of our visits to Calistoga Hot Springs in Napa Valley, two years ago, we noticed that all the ornamental shade trees round the hotel and before the cottages, there, were whitewashed up to the first branches, and, in some cases, beyond them. This not only shocked our horticultural taste, but much impressed us with the injury that this process would effect on the health of the plants. We are pleased to see, however, that this was only done one year. Not only the ornamental gardener but the orchardist should set his face like flint against all sorts of compositions that leave a coating upon the bark, and this, of course, the liming does. No daubings which become hard on the surface of trees, no matter what they are, nor what is claimed for them by charlatans and empirics should be used.

We have noticed this whitewashing abomination in many other places in the East as well as in California. We have even seen some arboriculturists make so sad a mistake as to coat their trees with some sort of composition of the consistency of paint. The objection to this treatment is that it interferes with the functions of the epidermis. But say the users of these compositions they are desirable for the destruction of insects. Now in the first place, we have very few injurious insects in this State, and even if we had as many as they have unfortunately in the East, this nuisance and eye-sore of painting vegetation would not be justifiable in any way. As well almost might people advocate the whitewashing of men, women and children when infested with the insects of the *Pediculus*, in order to get rid of them, as that of painting and whitewashing shade or fruit trees to rid them of *aphides* or scaly-bugs, habitants of their bark or outer covering. That trees grow and seem to flourish, notwithstanding this mistaken treatment, not because of it—is no more evidence in favor of it, than the fact that some persons who seldom or never bathe, yet enjoy good health, is against bathing and surface cleanliness in general. There is no danger of keeping either fruit or ornamental trees too clean, and this can be done with pure soft water, or, if a little soap be mixed with it, it may cause no harm. A good and the safest wash for trees is pure water.

The tree or plant is enveloped with an epidermis like an animal, and, for one to say that this has no function to perform beyond that of covering the organism animated with life, as the envelope does the letter, is certainly to publish his ignorance of vegetable physiology. The condition of the covering of the animal is deemed somewhat essential to the state of condition of the animal — so of the tree; its bark or covering is indicative of the healthful vigor of the tree, or of its opposite condition. Any one at all acquainted with fruit trees, whether from a knowledge of long cultivation or of observation, is prepared to judge of the condition of an orchard or garden of fruit or other trees, by looking at the condition of the bark.

The Algaroba Bean.

For a long distance along the coast of Catalonia and Valencia in Spain, where vegetation feels the effect of the direct ocean breeze, grows the algaroba or carob tree, an exceedingly useful and valuable tree, because furnishing a large amount of highly nutritious food for horses and other animals.

It seems nearly related to the sweet or honey locust of the Southern States, but bearing a much larger pod, filled with rich, oily seeds. Large quantities of these pods are annually shipped to England, where they are used as a substitute for oil cake as food for stock, being a cheap and fattening feed.

The pods when ripe, but before being dried are said to contain more than fifty per cent. of sugar; hence their fattening qualities. For transportation the pods are dried whole. When wanted for feed they are broken up by pounding and the dry pulp with the seeds fed without further preparation.

They grow upon almost any soil; any sterile and rocky place where no other tree is found, grows luxuriantly the carob tree with its valuable fruit. There could hardly be a more genial soil or climate for the production of this tree, than that portion of California between the ocean and Coast Range of mountains. Who of our seedsmen will be the first to introduce the seeds of this valuable exotic.

Benefits of Fruit to Health.

It is now universally known that scurvy — once the dreaded scourge of seamen—is entirely under the control of regimen, and that nothing is easier than to prevent it by ripe fruit and fresh vegetables. And what part of the world is more favored than California with abundance of all these, in winter as well as summer? Sailors now circumnavigate the globe without any fear of a malady in which medicine is almost unavailing, and which, before the introduction of vegetable acids and the potato into their bill-of-fare, swept off crew after crew in their long voyages. It is not so generally understood that people on land have suffered, and still do suffer to some considerable extent, where fruits have not been sufficiently planted, with this same disease, for the want of these acids from fruits and succulent vegetables.

It hardly admits of a doubt that what we have said of scurvy is equally true of numerous other complaints which flesh has seemed the unhappy "heir to," and that many of our disorders, deemed by many inevitable, prove to be quite under the control of those products of the earth for which the craving of the human appetite, in a healthy state, is most intense and universal. We say in a healthy state, because we are convinced that an abnormal condition of the palate and system is too often the consequence of an indulgence, through the force of unfortunate habits in the too-frequent use of ardent spirits and tobacco. To such persons we have frequently noticed that natural fruits and vegetable do not give such pleasure and benefit as to those whose taste and blood is in a more normal state. The pleasant flavor of all fruits, for example, is not apparent and enjoyable to the taste of the month of a man who is vitiated by the chewing of tobacco, and injured by the too-frequent use of fiery stimulants.

In view, then, of all this that we have said, we consider our fruit-growers and nurserymen among our truest public benefactors. Every man who raises young fruit-trees and plants orchards of the different varieties of the finest fruit, is contributing to the public wealth and welfare. We want more fruit—much more even than is now produced. Let no housekeeper, too, neglect one of the greatest improvements in modern times in the culiuary art also — the preservation or purchase of many fruits in cans. Let them bear in mind that in so providing an ample supply of these luxuries and beneficial diet they are taking the best steps for preserving the health of their families, and preventing long doctors' bills.

Angora Fleece.

It seems that American manufacturers of certain kinds of delaines and other worsted and woolen goods, have been in the habit of importing from England, considerable quantities of a kind of yarn necessary for certain fabrics of their manufacture, and have been paying and are now, as high as four dollars a pound for it. It is considered essential to certain goods which the markets require. This importation has been made, it would seem, without so much as inquiring into the kind of material of which the yarn is composed.

It now turns out to be nothing more nor less than Angora goat fleece or mohair; and the idea of paying to Englishmen or any other men, four dollars a pound for an article that we can get up just as well at home and from our own goat fleece, seems to have opened the eyes of our Eastern manufacturers, to the importance of making our home grown mohair available.

Accordingly we are advised that James Hartley & Co., wool dealers in this city, are in the market for the purchase of full blood and high grade mohair, and will take on consignment, for shipment to England, lower grade mohair to take its place in the markets squarely on its merit for quality. This will be good and timely news to the mohair growers of the Pacific Coast, and the proper encouragement to those desiring to embark in the new and promising enterprise.

NEW CROP ASPARAGUS.—The first of the year's crop of asparagus appeared upon the market this morning, January 22d, selling at forty cents a pound retail.

JAMES JONES, of Walla Walla, is referred to our advertising pages, and to our article headed, Raisins of the New Crop.

Hotbed Mules.

In Kentucky they used to raise mules for the Southern market. The object was to crowd each animal so as to secure the greatest possible height at two years old. There was a certain sum for fifteen-hand mules and a nice sum extra for each inch over that. They frequently used to get them sixteen hands high at two years old and sometimes seventeen hands. This is how they did it: Colts arrived not later than March and had a good range with their dams on the best of blue grass until weaning time in the fall, when they were turned upon a fine field of rye. As soon as the frost came they were housed in a well ventilated underground stable with plenty of grain, and roots when they could be had.

This kind of treatment was continued next season, aiming to keep them always in a comfortable place with as much feed as they could eat of the very best that could be had. The spring after they were two years old they were driven off to market, and as they looked strong enough for any work brought good prices and were put at once into the harness. As work animals they were as arrant humbugs as any wooden nutmegs, wilting down like cabbage plants in a hot sun. But we think there are lessons to be learned from their management valuable to the man who raises beef or mutton. For a work animal we want the best constitution and the hardest muscles, but for the shambles, that is the best animal that will produce the most good meat on a given amount of food.

As the value of land rises and we are confined to smaller enclosures, we will be obliged to watch the grasses more closely and feed our cattle better. Will it not pay to feed better now? Nothing is more certain than that the best of stock will reach the quality of the common grades if left to take their chances for two or three generations upon our native pastures —sometimes good and sometimes poor. For breeders of fine stock extra care is essential to success. We think that any animal will be raised with the greatest profit to the owner when kept growing all the time. Comfortable sheds and plenty of good feed will yet be the rule. That breed of animals will be most highly prized which will consume the most feed with profit. C.

Fruit, Shade and Ornamental Trees.

A patron of the RURAL who is just making a beginning in the way of tree planting, having at last secured a full title to his lands, desires to know if he cannot plant trees that will answer the purposes of shade and ornament and at the same time produce fruit of some kind, as the location of his buildings is sufficiently remote from the traveled thoroughfare as to be secure from the injurious effects of the summer's road dust, upon the leaves of fruit growing trees.

There are many trees that will answer the desired purpose, beautiful in their growth and useful in product, and that should take a stronghold upon the favor of the tree grower. The indigenous walnut of California and its compeer, the black-walnut of the Atlantic States and the introduced English Walnut are, all of them, beautiful and stately trees. Among fruit trees, the different varieties of English cherry—so called—are, in New England, among the most symmetrical and beautiful of their shade trees.

Among the old French settlements along the Detroit river both in Michigan and Canada, the largest and most beautiful of all their shade trees is the pear, which produces annually; and a significant fact connected with the size, vigor and longevity of those trees is, that they are all seedlings, and occupy the very positions in which their seeds were planted; and are now the largest, healthiest and most productive pear trees of their kind in the United States.

There are some varieties of the apple that make a very handsome growth, and should be included among the list of ornamental shade trees. The proper kinds can be ascertained by visiting an orchard of growing trees, and the proper choice made, as to form desired. But we would strongly urge upon our correspondent and all who are about to transplant fruit, shade or ornamental trees, to procure young trees and small ones in preference to those of larger growth; they are more certain to live, and in four cases out of five will, in three years, make larger and better trees.

Grafting the Grape.

We have received a letter of inquiry from Mr. Richard Allin of Elk Grove, Sacramento county, desiring information on the grafting of grape vines, how to insert the graft, the proper time for grafting and budding the vine, etc. As very many grape growers who in the early times of grapevine planting, had very few other than the more common Mission variety, suited only to wine making and table use, and as the raising of grapes for raisins is likely to be attended with larger profits than wine making, and as many persons in different localities in the State are anxious to change their varieties for the raisin grape by grafting their already well established vines, we will give the facts which we have at hand in relation to the success and manner of grafting the vine.

Vines should either be grafted early, before the stock on being cut begins to bleed, or it should be deferred till the vines have made a vigorous start and put out a few of their first leaves; at this stage of growth they bleed but little if any when cut. Some persons prefer the early season, others the later, and both are about equally successful.

Both grafts and buds can be inserted on the

Fig. II. *Fig. I.*





old wood of the vine anywhere from four inches below the surface to five feet above, but it is altogether best to graft at or beneath the surface of the ground; then the entire vine will be of the desired kind.

Mr. J D. Parks,

Says: "The best time for grafting is when the stock is far advanced in growth as the setting of the fruit; the stock should then be cut down, the scion having been kept in a dormant state.

Fig. III.



In grafting vines I have cut them off at the surface of the ground, and with a knife have split the stump in the middle and inserted the grafts cut in a wedge shape; they have always grown." See figures 1 and 2.

Mr. Cleveland

Says: "I took twelve Isabella vines of four years old; in taking them from the ground I took the greatest care to preserve my root. I then planted them outside the grape house, carried the stem to the inside, under ground, sawed it off two or three inches below the surface, split the stock, and inserted two scions in each, pressed the earth as tight as possible about them, and so left them. As soon as the eyes had pushed enough to be tied, I pulled out the scion which had the weakest growth and trained the other up under the rafters.

They all *grew* that season to the top of the roof, fourteen feet, and were there stopped. In the fall I cut them down to five buds each. The following summer they bore, and ripened their fruit well, and have continued to bear more and more the two seasons since. I allowed one the past season, to bear twenty pounds, which was too much, and it was not well colored. The rest bore about twelve pounds each, and ripened it well."

Dr. Sidney Weller,

Of North Carolina, says: "It is the uniform result of long experience, that, if grafting is effected on stocks procured or dug up from the woods, success, with due painstaking, will surely follow, if done at any time from the complete fall of leaves in autumn, until late in spring or even summer, when the scion can be kept back from sprouting. But if the graft be on stocks not dug up, or stands where it is to remain, it must be done in the fall or early part of winter, to ensure success. No clay, or any other covering of the grafted part, is necessary in grafting grape vines even with the ground.

All that is to be done, is to saw off your stock and put in your scion—with two or three buds thereon—wedge fashion, as in cleft-grafting fruit trees, and then draw earth around a few inches high, leaving one or two buds above ground; or where the stock is very large and inconvenient to split, I have made a gimblet hole and inserted the scion spile fashion, and then drawn the earth around. Grafts often bear some fine clusters the first season of growth, and pretty considerably the second."

Mr. Amos Goodwin,

Clark Co., Indiana, says: "Permit me to describe a method of grafting the grape upon old roots, that I have never seen in print. Cut the old root off, some two inches below the ground, by a horizontal cut; then choose a gimblet just the size of the scion to be inserted, and bore from one to three or four holes, according to the size of the root, and insert the scions, first removing the loose bark; the holes should be two or three inches in depth, and the scions should fit accurately. I have never known them fail to grow. The holes should be in the direction of the grain of the wood. I have never known this method fail, and I have never succeeded with any other, though I have frequently tried both cleft and splice grafting."

Our own experience has satisfied us that there need hardly be an instance of failure by the plug method; we have tried it upon the native vines of our mountain ravines, grafting them with the Mission grape, and have invariably succeeded, the graft making a growth of fifteen and in a few instances, twenty feet, the first season, and some of them producing from one to three bunches of grapes. The holes should be bored with a smooth cutting bit, a little smaller than the graft, and as near the bark or outside of the stump as possible.

Two inches is deep enough; the graft should have two or three buds if short jointed, if not short jointed one is sufficient; the end to be



HUNTER UPON SNOW SKATES.

inserted should be fitted by removing the bark and enough of the scion to allow it to enter, but fitting as nicely as possible; the upper part of the fitted portion should be cut with a shoulder, that the bark of the lower portion of the part of the scion left out of the stump fit down fair upon it; and the nearer the bark of the scion comes to the bark of the stump the better, though a positive union is not necessary as in grafting fruit trees.

We have been successful in grafting the vine by every known method, and yet we sometimes find the stump of the vine at the ground of such a twisted, gnarled growth that it cannot be split in good shape to receive the scion; in such cases we either resort to "plug" grafting or the plan as presented in figure 3. A wedge-shaped notch is made in the side of the stump with a fine saw, then made smooth with a sharp knife, or it can be made with the knife alone; the scion made to fit, and pressed firmly and closely into place and tied in by a strip of cloth or tape passed entirely around the stump; the earth is then to be drawn up over the whole except a single bud left even with the surface. This method is less injurious to the stump than when cleft as in figure 1. Grape vine budding, is more properly done in August and September than in the winter or spring.

NEW TANNING PROCESS. — We have several times had our attention called to specimens of leather tanned by a new process, which, though extremely rapid in its operation, is said to produce an excellent quality of leather. The manufacture is under the immediate management of Mr. L. B. Hopkins, who works under the Peter's patent, the works being situated for the present near North Beach. The business of tanning by this new and remarkably-quick process promises to be one of great value to California.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 21st, 1873.

FOR WEEK ENDING JANUARY 7th, 1873.*

BUTTON-HOLE ATTACHMENT FOR SEWING-MACHINES.—Eugene Moreau, S. F., Cal.

HANGING-DOORS.—Godfrey Heegler, S. F., Cal.

TRACK-CLEARER.—Andrew J. Gove, S. F., Cal.

PHOTOGRAPHIC PLATE-HOLDER.—Joseph Buchtel, Portland, Og.

LUBRICATOR.—John M. Power, Port Discovery, Washington Ter.

WASHING-MACHINE.—Amandrin M. Olds, Greely, Colorado Ter.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Contrast of Climates.

While in all the foothills and lower valleys of California countless thousands—because impossible to count them—of plows are running in all directions preparing the land for wheat and other cereals, and the gardener is busy with his hoe among the vegetables and some of the berries, from lettuce and green peas to strawberries, in every stage of growth and maturity, as a contrast, in the higher Sierras, the hunter upon his snow skates, not the snow-shoe of the East, is playing havoc among the deer and grizzlies—if he can find them—of the mountains.

We have been waiting for the winter to come upon us with something of rigor, that we might introduce our engraving with seeming propriety; but the winter, if we have had any, is past, the orange and the almond are in bloom; the strawberry is ripe, and rather than have it result in vain, introduce it now, in striking contrast with the beautiful green of our wide spread, charming lower valleys.

Raisins of the New Crop.

We have from time to time received samples of California grown raisins, and spoken of them as their merit seemed to deserve. But now we have in our office a box of raisins, grown and dried by Mr. D. C. Feeley, whose Postoffice address is Soquel, Santa Cruz County, that really seems to surpass anything of raisin growth that we have seen in the State. We have eaten a few but keep the rest, that any one who may desire to compare their own product with them can have the opportunity, by calling at our editorial rooms, 414 Clay street.

Mr. Feeley is situated in the mountains between Santa Cruz and San José, 1,400 feet above San José Valley, and his grapes do not ripen as soon by a month as in the Sacramento and and other interior valleys; so that the drying process had to be wholly completed in the month of November, requiring between two and three weeks to accomplish it, in the open air. The grapes were of that well known, and probably best raisin variety in the State, the White Muscat of Alexandria.

His plan of drying is upon a table or platform of boards two feet from the ground, covered with common China matting. The grapes are turned but once during the drying process, and covered at night to keep off the dews or damps. He finds that from 2½ to 3 pounds of grapes are required for a pound of raisins. He will doubtless largely extend his raisin production another year, the quantity running up among the tons; although from the superior product of his vines he was able to sell his entire crop of grapes fresh from the vines at 4 cents per pound, the last season. Of this excellent variety Mr. F. advertises in our columns a limited quantity of superior cuttings for sale.

THE GRAIN PRODUCT.—Sixteen days of fine, clear warm weather has succeeded the abundant rains of two weeks previous. Never in the history of the State has there been a winter so perfectly suited to the seeding of the soil as the present, and on every hand the plows in gangs of from two to six, are turning the soil for the reception of the seed, and already is it certain that a much larger acreage of wheat than last year will be secured. We only need the assurance of the usual latter rains, to give us full faith in a much greater yield the coming summer, than crowned our efforts in the year last past.



How to get Even with the R. R. is thus put in the blankest sort of verse, by a correspondent of the Fort Scott *Monitor:*

If the railroad kills your stock,
And you want to get even,
And they will not fix it up,
The way to do it
Is to get a keg of soap,
Of about forty gallons,
And stick a little scrub-broom into it.

Then sweep down the track
For about a half a mile,
Then return to the place
Where you commenced,
Then burst your little keg
And throw away your broom,
And mount the nearest
Stake-and-ridered fence.

Then you'll burst yourself a laughing
At the engineer a cussin'
And the engine wheels a turning
Round and Round.
And you'll fall off from the rider
And you'll break your spinal column,
And your folks will take and
Plant you in the ground.

Man and Woman.

Mrs. Francis Rose Mackinley of New York, writing to the *Herald* of that city about man's treatment of woman, talks right out after the following style:

"The coarseness with which men treat women now-a-days, in public, indicates a decadence in manners and feeling from that high position of deference to the female, which was the former reputation of this country; so much so, that it was remarked by foreign writers, Harriet Martineau and Frederika Bremer among the number, that a lady might travel all over the United States without escort, and would universally receive attention and kindness, merely in consideration of her sex. Latterly, at a hotel in this State, myself and a lady, seated at a public breakfast table, were so stared at and commented upon, by two well-clad individuals, no doubt claiming, however unworthily, the name of gentleman, that I was obliged to send a waiter to them, requesting them to desist.

"There is a deeper cause for these indignities than in the brutes that illustrate them in action. Such men must have had vulgar and inefficient mothers, and the general education of the woman is at fault; for this conduct seems not to be confined to any class of the social rank. Perhaps, also, as we are going through a crisis in the nature of the relations of the sexes, this first infection of freedom acts upon lower spirits as incentive to mere license; and it is only noble that natures feeling a sublime respect for that difference of sex, which is the most wonderful mystery of God and nature, see the deep purport of these new movements of the age, and recognize the greatness of woman's nature in its coarsest guise. "Were these men born of women?" queried a lady friend in regard to these impertinents.

"It depends upon women to teach men how to comport themselves towards their sex. Man is just what woman makes him. Women are now so much playthings and toys that men fail to see in them the companion, and friend, adviser and consoler, the true halves of their souls, without which they are incomplete human beings."

Hints on Nursery Management.—Keep a watchful eye each day to see if it is not possible to commend and praise your children, as many times a day as you censure and find fault. Think how weary you would be to be blamed as much as you blame your children; and then when an accident is the result of inexperience, remember that this very accident will better develop their caution without having their combativeness aroused by your blaming them. When the infirmities of age admonish us that it is really our turn to look for a guardian, guide and protector, who better to fill this place than a child who feels that patience, forbearance and wisdom were exercised towards him by the parent when his youthful steps needed counsel and advice. Then let every parent strive to exercise that point towards his children that he in his turn will desire from them. Try the plan of praising every commendable act as faithfully as they blame for every wrong, and report the result.—*Maine Farmer.*

Floating and Rowing.

Give your children short hours for study, long hours for play—real, earnest, and hearty play—and all the time they need for sleep, Nature's sweet restorer. Lay out their work or studies, and see that they do it; so, also, their play and their sleep. If hard tasks be given to children, stand by them, encourage, and help them through. Never overload a colt, or you spoil the horse. Teach children that there is a real merit in achievements. One success will be followed by another; and, when the boy becomes a man, he will go through—not around—a hard task. He will tunnel the mountain, when in his way; or force his way "up the rapids," instead of lying on his oars and floating down the stream. It requires energy—combativeness, firmness, executiveness, and ambition to excel—to insure success in live. The absence of these manly qualities leaves the miserable creature among pitiable imbeciles and helpless paupers.

Young man, whither are you tending? Are yon standing still, drifting on the tide, or lazily floating down the current? Do you chew tobacco, smoke tobacco, snuff tobaco, and drink? Or, are you still clean-monthed, pure minded, and unperverted? In one case, you are on the road which leads to dissipation, disease, crime, and premature death; in the other if you live right—yon will rise in life, become a useful, successful honored, and worthy citizen, growing in health, in grace, in godliness, and will leave the world somewhat better for your having lived in it. Choose ye, whether you will float or row your way through life, and suffer the sorrows of a mispent life or enjoy the happiness which comes of obedience to the laws of God.—*Phrenological Journal.*

Mental Recreation.

Mental diversion, mental exhileration, mental release from the cares and business and worries of life, are not only essential to healthful thonght and healthful condition of the mind, but they materially promote bodily vigor and physical well being. Amusements should more largely enter into American family life than they now do; it is the absence of it to too great an extent which leads to many social evils, to many habits and practices which ruin the health and the morals of our sons and our daughters in a great many cases. If boys and girls, from fifteen and upwards, do not find amusements at home, especially during the long winter evenings, they sigh for places where exhileration can be found; the sons for the street—the daughters for the dance, for the theatre, for visiting those of their associates whose homes are more lively. Young people can not be expected to have books and newspapers always in their hands, or sit demurely by the family fireside by the hour, in hemming and stitching and knitting.

Games and pastimes should be more freely introduced into our families; there should be more off-hand visiting, of informal calls, where one neighbor can drop into another neighbor's house after dark, and spend an hour or two in unrestrained, social intercourse, without form or ceremony, for two or three nights in the week; thus giving air, exercise and recreation.

Without A Newspaper.—Nothing presents a sadder commentary upon the present condition of society than the large number of families, both in town, and in the country, but more especially in the latter, that subscribe to no paper of any kind. How many families are thus growing up utterly ignorant of what is transpiring in the world around them—ignorant of the mighty events of the day. But who can tell the vast amount of injury that is being inflicted upon the rising generation—those who are to take our place in the busy world at no distant day—growing up without any knowledge of the present, or any study of the past; this ignorance, too, being imbued into them by the sanction of those who should, and doubtless do know better, did they only think of the injurious effects of their insane course. Let the head of the family think of this, and place in the hands of those for whom he is responsible, the means of acquiring some knowledge of the moving panorama in which we act our different parts.

Something for the Household.—A lady correspondent of the *Maine Farmer* congratulates that journal on account of the practice into which agricultural journals are falling of devoting a liberal space in their colums for the benefit and information of the female department of the household. She says:—"It looks like progress to remember the farmers' wife as well as the farmer. The wife of the farmer has not so much chance as the farmer has to get information. He is able to attend the clubs, &c., for information; but the paper is often the only connection with the rest of the world she has for weeks, and often months, at this time of the year.

Woman's Economy.

In the management of the family it is the husband's duty to provide and the wife's to economize. Many wives have to learn it in the end, who, had they known it in the commencement of married life, would have saved themselves, their husbands and their children from infinite sorrow.

It is the stock in trade of many writers for the papers to cast slurs on the daughters of the rich, about their frivolity and extravagance, but a multitude of cases can be pointed out where woman born to wealth—by their economies, voluntary and from principle, from a sense of duty—have in time of mercantile disasters nobly turned their energies and their co-operations to the saving of the "house."

On the occasion of a panic, one of our merchant princes came home late one evening, bearing the terrible intelligence to his wife that his failure was inevitable next day, that all his resources were exhausted, and that the financial disasters were so great that he could not raise among his friends another dollar, and that he needed a large sum. His wife heard him with extraordinary composure, and then quickly asked him how much he needed, and taking down the family Bible, she opened it, and turning over a leaf, found a hundred dollar bill, and then another, and another, until more were counted than the amazed husband wanted, and upon inquiring where she obtained so large an amount of money, she said that in his prosperous times he had given her such a liberal amount for household and personal expenses, that she was enabled by judicious economies in food and clothing to lay aside a considerable amount every week, knowing the fickle character of mercantile life, she thought it might answer a good purpose to do as she had done.

European Languages.—A recent calculation relative to the principal European Langnages shows that English is spoken by 90,000,000 of persons, inhabiting Great Britain and Ireland, North America, the Bermudas, Jamaica, Cape of Good Hope, Australia, Van Dieman's Land, Newfoundland, and the East Indies; German by 55,000,000 in their own country, Switzerland, Austria, Hungary, Russia, North and South America, La Plata, Australia, and the East Indies; Spanish by 55,000,000 in Spain, Cuba, Mexico, the republics of South America, Manilla, etc.; and French by 45,000,000 in France, Belgium, Switzerland, Canada, Cayenne and North America.

Be Cheerful.—"Be cheerful," says the man who is easy in his circumstances, missing no loved face at the table, nor by the hearth. But does he ever consider how hard it may be to be cheerful when the heart aches, and the cupboard is empty, and there are little fresh green graves in the churchyard, and friends are few and indifferent, and even God, for the time being, seems to have forgotten us, so desolate is our lot? How difficult for one man to understand another in such different circumstances! How easy to say "Be cheerful?" How hard he would find it to practice, were he stripped of all life's brightness!

Happiness between husband and wife can only be secured by that constant tenderness and care of the parties for each other which are based upon warm and demonstrative love. The heart demands that the man shall not sit reticient, self-absorbed in the midst of his family. The woman who forgets to note and provide for the peculiarities of her husband's tastes and wishes, renders her home undesirable for him. In a word, ever present and ever-demonstrative gentleness must reign, or else the heart starves.

Mrs. Harriet Beecher Stowe speaks of motherhood in a pretty way, when she says: "It would sometimes seem as if motherhood were a lovely artifice of the great Father, to wean the hearts from selfishness by a peaceful and gradual process. The babe is self in another form. It is so interwoven and identified with the mother's life that she passes by almost insensible gradations from herself to it; and day by day the instinctive love of self wanes as the child-love waxes, filling the heart with a thousand new springs of tenderness."

Clay and Rock—Are given us; not brick and squared stone. God gives us no raiment; he gives us flax and sheep. If we would have coats on our backs, we must take them off our flocks, and spin them and weave them. If we would have anything of benefit we must earn it; and in earning it, must become shrewd, inventive, ingenious, active, enterprising.—*Beecher.*

The most unique and fanciful ear-rings lately shown are in representation of minute lakes of the most transparent crystal, in which floats a tiny gold swan, composed of sufficient silver alloy to give the simulated bird a snowy sheen of the natural. These ornaments are exquisite *bijous*, selling at fifty to sixty dollars a pair.

Young Folks' Column.

A Noble Boy.

Two boys were in a school-room alone together, when some fire-works, contrary to the master's express prohibition, exploded. The one boy denied it; the other, Bonnie Christie, would neither admit nor deny it, and was severely flogged for his obstinacy. When the boys got aloue again,

"Why didn't you deny it?" the real delinquent asked."

"Because there were only we two, and one of us must have lied," said Bonnie.

"Then why not say I did it?"

"Because you said you didn't, and I would spare the liar."

The boys heart melted—Bonnie's moral gallantry subdued him.

When school resumed, the young rogue marched up to the master's desk and said, "please, sir, I can't bear to be a liar. I let off the squibbs," and burst into tears.

The master's eye glistened on the self-accuser, and the unmerited punishment he had inflcted on his schoolmate smote his conscience. Before the whole school, hand in hand with the culprit, as if they paired in the confession, the master walked down to where Christie sat, and said aloud with emotion:

"Bonnie, Bonnie, lad—he and I beg your pardon, we are both to blame."

The school was hushed and still, as older schools are apt to be when anything true and noble is being done—so still, they might have heard Bonnie's big boy tear drop proudly on his copy-hook, as he sat enjoying the moral triumph which subdued him as well as the rest; and when, for the want of something else to say, he gently cried—"Master, forever!" the glorious shout of the scholars filled the man's eyes with something behind his spectacles, which made him wipe them before he resumed the chair.

American vs. English Boys.

Brighton, Eng., every year has a foot race open to the boys belonging to the schools of that place, and a beautiful gold cup is presented as a prize to the winner. This race is over a course one hundred yards in length, and all the city takes an interest in the affair, and great crowds witness the contest.

This year it was made more interesting than usual by the offer of a cup, valued at £50 to the winner over a course of 250 yards long, by Mr. James Ashbury, of yachting notoriety, who lives at Brighton.

These two races came off last September, but unfortunately for English pride, in one of the schools are two little boys born on this side of the Atlantic—Yankees, they call them—Willie and Harry, sons of Mr. H. S. Homans, who is residing in England for a few years for business purposes. Twenty schools were represented in the races, and twenty-seven boys started in the race of 100 yards, and Willie came in first, followed by Harry, second, beating all the English competitors.

"But no matter, that is a short race, and don't test endurance," say the mortified English papas and mamas.

All made ready for the long race, 250 yards in which forty-two English boys started against the two little Yankee brothers. Again Stars and Stripes came out ahead, only this time Harry leads and Willie is second, forty-two English boys following behind.

We say hurrah for the Yankee boys, as well as Yankee yachts.—*Times.*

An Unwashed Prince--A Hint for the Little Folks.

One day the Crown Prince of Germany heard an uproar in his nursery. He stepped in to inquire, and the nurse said, "Prince Henry refuses to be washed." "What, my son, will you not be washed and made clean?" "No, I won't be washed," he petulantly responded, "I don't like to be washed. Let me be!" "Well, said Fritz, "if that is his choice, let him be. He need not be washed!" Away he bounded with great glee at having conquered the nurse, and getting his own way. By and by the nurse and Prince Henry took a ride through the Thier garden and streets of Berlin. He soon noticed that the sentries stationed all over the city, did not give them the customary salute. "Why don't the soldiers present arms, nurse?" "I can not tell," she said. "we are dressed correctly, are in the royal carriage, and I can not guess why they refuse us the honors." At eventide his papa asked Prince Henry if he had enjoyed his ride to-day? "No, papa, not a bit." "Not a bit? What can the matter be?" "Why, papa, not a soldier recognized or saluted us in driving all round the city, and we had on uniform and rode in the royal carriage." "Ah!" he says to the lad, "soldiers did not salute you, eh? Well, you must understand, my boy, that no Prussian soldier will present arms to an unwashed prince!"

"I'll tell your mother of you, "said one little girl to another. "Tell her," answered Maggie; "you can not tell her anything naughty of me that I don't tell myself." That is right. Let every boy and girl tell mother when they do wrong, and I am sure they will keep from doing it.

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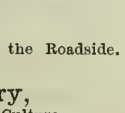
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Presidio Road, near U. S. Reservation (on the line of the Sutter street Cars), SAN FRANCISCO.

A Large and Well Selected Stock of New and Rare Plants for the

Greenhouse and Open Air.



FLOWERING AND ORNAMENTAL FOLIAGE PLANTS AND SHRUBS,

Evergreen Trees, Geraniums, Pelargoniums, Roses, Fuschias, Pinks, Gladiolas, Lilies, Coleus, Pansies, Primroses, in great variety. Also, Tuberroses, Verbenas, Cactus, Heliotropes, etc.

Orders from the country carefully attended to.

Address, through P. O.,
25v4-3m F. LUDEMAN & CO.,

Fruit, Shade and Ornamental

EVERGREEN TREES AND

Plants for Sale,

At the old stand, corner Oregon and Battery streets, Directly opposite Post Office, SAN FRANCISCO.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants

Ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with care. Send for Price Catalogue.

AGENT FOR B. S. FOX'S NURSERIES, SAN JOSE.

Address THOMAS MEHERIN,
516 Battery Street,
SAN FRANCISCO.
P. O. Box 722. 25v4-2m

500,000 Fruit, Shade and Ornamental Trees, Plants, Etc.

FOR SALE AT THE

CAPITAL NURSERIES, SACRAMENTO.



Having a very large Nursery Stock, I can furnish Trees and Plants of all kinds cheap. Fruits guaranteed true to name. Send stamp for printed Price List, Catalogue, and instructions for hedge-growing. A large stock of Osags Orange Hedge Plants for sale. Letters of enquiry promptly responded to. Office and MAIN TREE DEPOT, U street, between Fifteenth and Sixteenth, Sacramento. Branch Yards, Sayles & Williamson, J street, Sacramento; Burney & Williamson, Modesto; and W. T. Wright, Agent at Colusa.

ROBERT WILLIAMSON,
25v4-3m Proprietor.

Bay Nursery,

[ESTABLISHED 1852.] OAKLAND, CAL.

Office and Depot.....Broadway and Thirteenth.
Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Coast. Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarius, Weeping Cedars, Golden Arbor Vitæs, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rare merit. Tube Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m JAMES HUTCHISON.

Twenty Years in the Nursery Business in California.

A. D. PRYAL,

Nurseryman and Florist,

THREE MILES NORTH OF OAKLAND,
Near Temascal Creek.



Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental belts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, fit for forest culture; Oak Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A beautiful assortment of Roses and Lilacs; also Asparagus Roots.

All orders will receive prompt attention. Address

A. D. PRYAL,
26v4tf Oakland, Alameda County, Cal.

TREES AND PLANTS FOR SALE

—AT THE—

LIBERTY NURSERIES,

Petaluma.



I offer at moderate prices a general assortment of

FRUIT, SHADE AND EVERGREEN TREES, AND SHRUBS.



Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

Send for Descriptive Catalogue and Price List.

Address W. H. PEPPER,
15v4 6m Petaluma, Sonoma County, Cal.

White Muscat of Alexandria.

I have a large lot of two-year-old, well rooted WHITE MUSCAT OF ALEXANDRIA GRAPE VINES for sale at $6 per 100, or $50 per 1000. This is the Very Best Raisin Grape, bears shipping the best, and is the most popular Grape for the general market everywhere. Also, two-year old English Walnuts at $12 per 100, or $100 per 1000. Choice lot of Almonds and Prunes at 25 to 50 cts. each. Large amount of W. Muscat Grape Cuttings, low. Orders may be left with A. Lusk & Co., San Francisco, or sent by mail to the subscriber, San Jose, P. O Box No. 494.

2v5-2m G. W. McGREW.

50,000

Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

Address JAS. T. STRATTON,
23v4-5m Brooklyn, Cal.

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine assortment of

Ornamental Shrubs?

Then call at the

BELLE VIEW NURSERY,

Telegraph Road.....OAKLAND.

2v5-3m S. NOLAN, Proprietor.

Grape Vines and Cuttings for Sale

—AT THE—

Vineland Vineyards,

NAPA COUNTY,.....CAL

The undersigned can furnish Grape Cuttings of the Choicest Varieties of Wine and Table Grapes.

Many of the Choicest Wine Grapes can be furnished in large quantities, at from $5 to $7 per thousand.

Rooted Vines, $2 per hundred or $15 per thousand, delivered at the Railroad Station.

Send all orders in early to

J. LEWELLING,
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King's Nursery,

ELM Street, between Telegraph Avenue and Broadway,

OAKLAND,

GREEN HOUSE PLANTS,
EVERGREEN TREES,
SHRUBS, ROSES, ETC.

100,000 MONTEREY CYPRESS.



A superior stock of large sized Australian Gum trees, including:—EUCALYPTUS GLOBOLUS (Blue Gum)—extra fine street and shade tree. EUCALYPTUS VIMENALIS—both sorts very popular. ACACIAS in variety. Monterey Pines, Lawson's Cypress, etc., etc. Orders attended to. Address

3v5-2m M. KING, Nurseryman, Oakland.

THE OLD

Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL and FRUIT AND EVERGREEN and DECIDUOUS SHRUBS; also a large assortment of Choice ROSES too numerous to mention. Plants, Flowers and Bulbs, Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
12v3-tf Washington street, Brooklyn, Cal.

FRUIT AND ORNAMENTAL TREES.

Glen Gardens, one Mile east of Sacramento.

My stock embraces all the most desirable varieties known, including several new Peaches imported from England, among which are the Early Beatrice, Early Louise and Early Rivers—all earlier than Hale's—the Beatrice undoubtedly reaching the practical limit to earliness, being twenty days earlier than Hale's.

For late varieties I have the Salway (the premium Peach at the State Fair), and the Freemason, the most valuable late Peaches in cultivation.

Blackberry, Raspberry and Strawberry Plants, all at the lowest market prices for cash.

ja18-1m ED. F. AIKEN, Proprietor.

PLANTS! PLANTS!

60,000 Evergreen and Flowering Shrubs

AT GREATLY REDUCED RATES.

Those intending to embellish their grounds will find it to their advantage to examine my stock and ascertain prices.

DAVID NEELEY,

Golden Gate Nursery, corner of Folsom and Twentieth Streets, San Francisco.

25v4-3m

1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

Send us your address and get our Descriptive Catalogues and Price Lists. Address

HARGIS & SOMMER,
Star Nurseries,
Quincy,
26v4-3m Illinois.

SHADE TREES! SHADE TREES!!

In Harbison's Nursery, one Mile below Sutterville, on the Riverside Road.

My stock of Trees is of the most desirable varieties, well grown, and cannot fail to please PLANTERS and DEALERS, both as to STYLE and PRICE. Trees carefully packed and delivered to the cars and boats, also to all parts of the city, without additional charge. Examine Trees at Nursery, or address

J. S. HARBISON, Ninth Street,
jan18-1m Between M and N, Sacramento.

T. CORLEY,

Nurseryman and Florist.

The undersigned has continually on hand a large assortment of finest FRUIT, SHADE AND ORNAMENTAL TREES, FLOWERS, SHRUBS, POT PLANTS, etc., of the most varied and choice description, which he sells at lowest rates. Trees and Plants securely packed to travel any distance. The undersigned, being a practical Nurseryman, offers his services for laying out of gardens, plots, etc. T. CORLEY,
2v5-3m No. 315 Washington st., San Francisco.

OSAGE ORANGE HEDGE PLANTS

FOR SALE AT THE FOLLOWING RATES:

First-Class.....$9.00 per thousand
Second-Class.....$6.00 per thousand
Third-Class.....$4.00 per thousand

Ten per cent. discount made for any thing over 5,000. Orders promptly filled. Address

G. W. FRAZER,
23v25-3m Vaca Station, Solano County, Cal.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETTS, for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, DRAKE & EMERSON, No. 521 Sansome street, San Francisco, ROBT. WILLIAMSON, Capital Nurseries, Sacramento, or to me, CALVERT T. BIRD,
3v5-2m San Jose, Cal.

Our Seedsmen.

New York Seed Warehouse.

ESTABLISHED IN 1852.

427 Sansome street, near Clay.....San Francisco.

R. J. TRUMBULL,

[Successor to C. L. KELLOGG]

Wholesale and Retail Dealer in



A Splendid Stock of Grass Seed, Embracing, Mesquit, Kentucky Blue Grass, Orchard, Red Top, Rye and Timothy; Fine Mixed Seed for Lawns; White and Red Clover Seed; California and Chile Alfalfa.

Dutch Bulbous Roots, imported from the best Flower Nurseries of Holland.

Agent for the Genuine Languedoc Almond Tree—By the 100, at from $12.50 to $25.00. 100,000 EUCALYPTUS or AUSTRALIAN GUM TREES, at from $15 to $25 per 100. CALIFORNIA AND AUSTRALIAN SEEDS. GARDEN HARDWARE, Etc. Seeds Warranted Fresh and Pure. Catalogues free on application.

R. J. TRUMBULL,
23v25-3m 427 Sansome street, San Francisco.

SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds,

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED,

Mesquit Grass Seed.

Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.

Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

RUSTIC AND WIRE BASKETS, FLOWER STANDS, FRUIT AND ORNAMENTAL TREES, ETC.,

AT THE OLD STAND.

Send for Catalogues. E. E. MOORE,
425 Washington street,
14v4-3m San Francisco, Cal.

Seeds! Seeds!!

By W. R. STRONG,

8 and 10 J St., SACRAMENTO.

My stock of Seeds this season is larger and in greater variety than can be found elsewhere on the Pacific Slope, and of the last season's growth.

Garden, Flower and Field Seeds;

ALSO,

FRUIT, SHADE, FOREST and EVERGREEN TREE and SHRUB SEED.

TREES AND TREE SEEDLINGS, FRUIT, TIMBER AND ORNAMENTAL, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will be mailed free for one year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

Vick's Flower Seeds, Bulbs, Chromos and catalogues on hand and supplied at strictly his rates.

Seeds and small seedlings forwarded by mail to any part of the United States. My catalogues are now ready, and furnished free on application. [3v5-2m

FLAX SEED AND CASTOR BEANS.

Pacific Oil and Lead Works,

SAN FRANCISCO,

Are prepared to

Furnish Seed and Contract for Next

Year's Crop of Flax Seed and Castor Beans at rates that, with proper cultivation on suitable land, will make them among the most profitable Crops grown.

For further particulars address

PACIFIC OIL AND LEAD WORKS,
3 and 5 Front Street.....SAN FRANCISCO.
21v4-3m

SEEDLINGS AND ROOT GRAFTS

Should be ordered now. W. F. HEIKES, Dayton, Ohio.

S. F. Market Report.

Weekly Market Review

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, M. Jan. 22d, 1873.

The markets for Domestic Produce have been rather quiet this week. Wheat is firmer than it was last week, bnt Barley and Oats are weaker. Wheat exports have beeu very much lighter than last week, bnt quite a largo quantity of Flour has been taken away.

RECEIPTS.—Compared with last week receipts have been rather light save in the matters of Wheat and Wine, but here there has heen a falling off in the quantity brought by the coasting steamers. Barley has fallen off nearly one-half, Oats keeps up, hut the quantity now received weekly is altogether insignificant. Of Potatoes we have received little more than one-third of last week's quantity; Middlings havo fallen off; Hay has largely increased; Beans have fallen off two-thirds; Oulons, one-half; Wool receipts are only one-eighth those of last week; Hidss have increased largely, and the receipts of Wine have been more than doubled.

We summarize receipts of Bay produce to date, as 16,-691 quarter sacks of Flour, 254,635 oentals of Wheat, 5,455 do of Barley, 89 do of Oats, 21 do of Buckwheat, 1,963 do of Potatoes, 1,697 do of Bran, 619 do of Middlings, 946 do of Hay, 98 do of Straw, 285 do of Beans, 9 do of Peas, 670 do of Onions, 26 hales of Hops, 12,370 gallons of Wine, 645 do of Brandy, 2,147 Hides, 63 bales of Wool, 38 bales of Chiccory, 114 barrels of Beot Sugar and 40 bales of Cotton.

Wheat receipts at Oakland Wharf have aggregated 86 000 centals or 430 car-loads.

Our receipts of Coast produce have been as follows: 3,294 centals of Wheat; 8,539 do. of Barley; 1,886 do. of Oats; 9 do. of Buckwheat; 1,701 do. of Potatoes; 351 do. of Beans; 27 do. of Castor Beans; 100 do. of Peas; 3 puncheons, and 26 pipes of Wino, and 33 packages of Wine and Brandy; 2,194 centals of Coru; 6 do. of Alfalfa Seed, 41 do. of Dried Grapes, and 19 of Flax. Moss Landing and Santa Cruz sent us all the Wheat, save a small quautity coming from Tomales and San Diego; San Bernardino sent more than half the Barley, San Pedro one-fourth, Moss Landing and Santa Cruz, the balance; the Potatoes came principally from Pigeon Point; the Beans nearly all from Moss Lauding; the Peas from Moss Landing; the Castor Beans, Buckwhcat, and Wine from San Diego; the Corn and Wino from San Pedro and San Diego, and the Flax from Hueneme.

From Portland the steamer has brought us 1,440 half, and 4,272 quarter sacks of Flour, 89 cases of Salmon, 120 centals of Onions, 167 do. of Potatoes, 698 Hides and 164 bales of Wool.

BARLEY.—Barlsy has beeu weak duriug the week. We have received very large quantities from Coast ports. We note sales of 200 sacks of Coast, at $1.27 ½; 1,100 do, at $1.30; 600 do. of Feed, at $1.32½; 300 do. of Feed, at $1.37½; 200 do. of Bay, at $1.40, and 500 do. of Brewing, at $1.45.

FLOUR.—Flour has become a little firmer during the week, and exports havo boen very large, including 258 barrels, 3,287 half sacks and 41,894 quarter sacks, to China, New York, Panama, Mexico, Central America and Tahiti.

HAY.—Receipts during the week have been much larger, and a firmer tone is perceptible. We note salos of 260 bales of Common, at $15.25; 230 do at $16, aud 2 car loads of Whoat at the depot for $20.

HOPS.—Receipts of new season Hops have been light this week. By latest dates from Euglaud the Hop market has been lively, in one week having advauced from 1 9-10 ceuts to 2½ cents over previous prices. The Hop circular of Thos Wild & Co., gives ncarly the same quotations as those given in the last numher of the RURAL PRESS.

OATS.—Oats have been like Barley, dull of sale during the week. We note sales of 600 bags of Common at $2, 100 do of Good at $2.10, 400 do of Choice at $2.26, and 500 do of Oregon at private rates.

POTATOES.—Receipts last week have been less than one ninth those of the previous week. We note sales of 550 bags of Bodega at 90c, and 1,600 do of Humboldt at $1.12½ to $1.20

WHEAT.—Receipts this week aggregato 343,829 centals, falling short of those of last week, though still very high. Exports, however, are not much more than half those of the previous week. Freights, have risen again, being uow quoted at $4.00 or $19.40 ceuts per ton but this is largely nominal. The local market, though quoted correctly hy the same figures as those of last week, is somewhat stiffer on account of the advance reported by telegraph from Liverpool. According to the telegram of the Associated Press Wheat has risen four ceuts during the week, being now quoted at 12s 5d to 12s 7d per cental. The same authority also quotes Club (?) at 12s 10d to 13s 2d per cental. We note sales of 600 sacks of low grado at $1.75, 11,000 do of fair to good at $2.00, 4,000 do of Shipping, at $2 02½; 2,200 do of Shipping, at $2.03; 26,000 do of Shipping to choice, at $2.05; 20,000 do of good Shipping, at $2.07 ½, aud 10,000 do of Shipping, at private rates.

Exports have fallen off. They include per "John Duthre," to Liverpool, 28,503 centals; per "J. Walter Scammell," to Queenstown, 28,912 centals; per "Mooraba," to Queenstown, 20,404 centals; per "Silas Fish," to Cork, 19,193 centals; per "George H. Warreu," to Cork, 39,644 ceutals; per "Moutgomery Castle," to Liverpool, 27,978 centals; per "California," to Queenstown, 43,050 centals; per "Severn," to Qneenstown, 13,333 centals; per "Ellen Monroe," to Queenstown, 39,024 centals, aud per "Staghound," to Tahiti, 13,000 centals, making a total of 9 cargoes aud one shipment of 260,081 centals, worth $474,298.

WOOL.—We are obliged, owing to want of space, to postpone our Wool review for auother week. Receipts this week have been very small. The Wool Circular of James Lynch, of New York, gives the stock on hand in that city on the 1st of January at 6 314,000 lbs. of Domestic and 4,736,000 lbs. of Foreign, being a decrease of 3,900,000 lbs. in last year. The New York market ought to he a good oue for California Wools this year.

GENERAL MERCHANDISE.

IMPORTS for the week include cargoes from Portland Victoria and Mexico; selected do of Iron, Steel and Chemicals; from Liverpool, by lhe "Young America" and "Vancouver;" and one of Sugar, Rice, Flax and sundries, from Hong Kong, by the "A. W. Weston" and Scotia. Our exports aggregate $510,893. The imports of 1872 aggregate ahout $72,000,000, aud the exports over $43,-000,000.

DOMESTIC PRODUCE AT WHOLESALE.

Wednesday M., Jan. 22, 1873.

FLOUR.			
Alviso Mills, bbl	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 25
Commer'l Mills	4 50	@	6 25
Golden Gate	4 50	@	6 25
Golden Age	4 50	@	6 25
National Mills	4 50	@	6 25
SantaClara Mills	4 50	@	6 25
Genesee Mills	4 50	@	6 25
Oregon	4 50	@	6 25
Vallejo Star	4 50	@	6 25
Venus, Oakland	4 50	@	6 25
Stockton City	4 50	@	6 25
Lombard. Sac	4 50	@	—
BEANS.			
Bsana sm'l white	3 ½	@	—
do, butter	4¾	@	—
do, large, do	5	@	—
do, hayo	3½	@	—
do, pink	4	@	—
Pea	3¾	@	—
BROOM CORN.			
Per ton	$40	@	120
GRAIN, ETC.			
WheatCal. coast	1 90	@	1 95
do, shipping	2 00	@	2 05
do, milling	2 00	@	2 05
do, Oregon	—	@	—
Barley, DarkC'st	1 27½	@	1 35
do, Light	1 32½	@	1 37½
do, Brewing	1 45	@	1 50
Oats, Coast	2 15	@	2 20
do, Bay	2 20	@	2 30
Corn, White	1 25	@	—
do, Yellow	1 25	@	—
Buckwheat	1 75	@	2 00
Rye	2 00	@	2 25
Corn Meal	2 00	@	2 25
DAIRY PRODUCE			
Butter, Cal. fresh	45	@	50
do, ordinary roll	33	@	40
do, choice	40	@	—
do, new firkin	—	@	—
do. packed	30	@	35
do, New York	35	@	—
Cheese. Cal. new	16	@	—
do, Eastern	14	@	18
Eggs, Cal. fresh	30	@	40
do. Oregon	25	@	—
do, Eastern	22	@	—
FEED			
Bran per ton	20 00	@	—
Middlings	27 50	@	30 00
Hay	15 00	@	24 00
Straw	9 00	@	—
Oil cake meal	35 00	@	—
FRESH MEAT.			
Beef, fr quality	8	@	—
do, second do	6	@	—
do, third do	5	@	—
Veal	7	@	8
Mutton	7	@	7
Pork. undressed.	6¾	@	6
do, dressed	5	@	—

HIDES.			
California, 1871, lb	20	@	25
do 1872	30	@	35
MISCELLANEOUS.			
Beeswax, per lb	35	@	40
Honey	8	@	12
Los Angs. Honey	18	@	20
Onions	3	@	3½
Flaxseed	3	@	—
Canary do	5	@	6
Mustard do, white	1½	@	2
do, brown	2	@	3
Peas	2 00	@	—
Alfalfa	25	@	25
Ky. Blue Grass	50	@	—
Timothy	18	@	—
Italian Rye	35	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	5	@	7
Pecan nuts	16	@	18
Hickory do	8	@	10
Brazil do	16	@	18
Prince Almonds	16	@	—
Cocanuts, per 100	15 00	@	—
Alm'ds hard shell	12½	@	15
do, soft	23	@	25
POTATOES.			
Sweet, per lb	1½	@	—
Humboldt	1½	@	1¾
Monterey	1½	@	—
Tomalas	90	@	1 00
POULTRY AND GAME.			
Live Turkeys lb.	18	@	20
Hens. per dz	8 00	@	8 50
Roosters	9 50	@	10 50
Chickens	5 00	@	6 00
Ducks, tame, doz	11 00	@	12 00
do, Mallard	4 00	@	5 00
Geese, per pair	2 50	@	3 00
Quail, per doz	2 00	@	2 25
Hare, per doz	4 00	@	4 50
Rabbits, per doz	1 00	@	1 50
Larks, per doz	50	@	75
Doves, per doz	50	@	75
Plover, per doz	50	@	75
Curlew, per doz	50	@	75
Teal, per doz	1 00	@	1 50
Snipe, Eng., doz	1 50	@	2 50
do, small, doz	75	@	1 00
Venison, per lb	8	@	9
PROVISIONS.			
Cal. Bacon, per lb	11	@	13
Eastern do	10½	@	12½
do sugarsd	13	@	14
Cal. Hams	14	@	—
Eastern do	15½	@	16½
Cal. Smoked beef	11	@	—
WOOL, ETC.			
Choice Northern	22	@	25
Seedy	18	@	22
Burry	12	@	18
Oregon	34½	@	40
Hides, dry	19	@	20
do green	8	@	9
Tallow	8	@	9

FRUIT MARKET.

There are no Mexican oranges in the market. Oranges are very scarce. Lemons are in medium supply. Pomegranates are out. Dried apples are also out.

FRUIT MARKET.			
Mex. Or. per 1000	—	@	—
Limes, per M	25 00	@	35 —
Au'lnLemons, bx	12 —	@	15 —
Messine do., bx	12 00	@	15 00
Bananas, per bnch	2 50	@	3 —
Pineapples, per dz	—	@	—
Apples, cat'g, bx	1 00	@	1 57
" Cooking	75	@	1 00
Pears, Eating	2 50	@	—
" Cooking	50	@	1 00
Pomegran's, per 100	—		none
Grapes, Mission	—		none
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—
DRIED FRUIT			
Apples, per lb	7	@	9

Pears, per lb	6	@	8
Peaches, per lb	8	@	10
Apricots, per lb	—	@	—
Plums, per lb	5	@	8
Pitted, do per lb	18	@	30
Raisins, per lb	8	@	10
Black Figs, per lb	8	@	10
White, do	12½	@	15
VEGETABLES.			
Cabbage, per dz	50	@	65
Garlic, per lb	5	@	—
Green Peas	12½	@	15
Green Corn per doz	—	@	—
Marrowfat Squash per ton	7 50	@	8 —
Artichokes, per lb	3	@	4
Tomatoes, L. A.	15	@	—
String Beans, per lb	—	@	—
Lima Beans	—	@	8
Peppers dry	15	@	25
Okra	35	@	40

GENERAL MERCHANDISE.

BAGS.			
Eng, stand. Wh't	15¼	@	—
Flour Sacks ½s	16¼	@	—
" ¼s	8½	@	9¼
Stand. Gunnies	16¾	@	17
" Wool Sacks	70	@	75
" Barley do	15½	@	—
Hessian 40-in gds	—	@	12½
COFFEE.			
Coata Rica per lb	18	@	19
Guatemala	17	@	18
Java	22	@	—
Manilla	16	@	17
Rio	—	@	—
Ground in cs	22½	@	25
Chicory	10	@	—
FISH.			
Psc. Dry Cod, new bundles, per lb	—	@	8½
Salmon in bbls	7 00	@	7 50
do ½ bbls	4 75	@	—
do 2½ lb cans	—	@	—
do 2lb cans	3 50	@	—
do 1lb cans	2 50	@	—
Pick. Cod. bbls.	8 00	@	—
do ½ bbls.	5 00	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, hf-bx per lb	—	@	50
Mack'l, No.1, ½ bls	—	@	9 00
" Extra	—	@	12 00
" in kits	2 25	@	3 25
" mess	—	@	3 50
" sx. mess	—	@	5 00
NAILS.			
Assorted size	—	@	5 75
PAINTS.			
Stand. Wh. Lead.	—	@	10
Whitening	—	@	3
Shaker	—	@	3
Paris White	—	@	3
Ochrs	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	10½
Lithargs	—	@	10
RICE.			
China No. 1, per lb	6¼	@	7
do 2. do.	5¼	@	5¾
Japan	6	@	7
Patna	7	@	7½
Hawaiian	8½	@	9
OILS.			
Pacific Glue Co.	—	@	—
Neat F't No. 1	2 50	@	—
Pure	—	@	—
Cocoa Nut	—	@	—
Olive Phgnol	—	@	—
do Possel	—	@	—
Palm	—	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in ca.	75	@	—
Sperm, crude	2 25	@	—
do bleached	2 00	@	—
Coast Whales	37½	@	42½
Polar, crude	—	@	—
Lard	95	@	1 10
Coal, refined Pet	42½	@	45
Oleophine	—	@	—
Davos's Brit't	45	@	—
Long Island	42½	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	45	@	—
TOBACCO.—Jobbing.			
light Navys	55	@	60
Black do	50	@	—
Dark Twist	60	@	67½

12 inch do	60	@	67½
Light Pressed	60	@	67½
Hard do	55	@	65
Coun. Wrap'r	40	@	50
Penn. Wrapper	27½	@	35
Ohio do	20	@	25
Yrigi'a Smok'g	50	@	50
Fine cut chewing,	75	@	90
Fine cut chewing, buc'ts	70	@	85
Banner fine cut	9 00	@	9 25
Eureka Cala	8 00	@	9 50
COAL—Jobbing.			
Australian	15 00	@	—
Coose & Bel. Bay	15 00	@	—
Seattle	16 00	@	—
Cumberl'd, cks	27 00	@	—
do bulk	22 00	@	—
Chile	—	@	—
Lehigh	24 00	@	—
Liverpool	14 00	@	—
West Hartley	22 00	@	—
Scotch	16 00	@	—
Scranton	15 00	@	—
Vancouver's Isl	14 00	@	—
Charcoal	4 00	@	—
SOAP.			
Castile, per lb	12½	@	13
Local brands	6	@	7
SPICES.			
Allspice, per lb	17	@	—
Cloves	23	@	—
Cassia	30	@	—
Nutmeg	97½	@	—
Whole Pepper	20	@	—
Ground Allspice	—	@	19½
do Cassia	35	@	22
do Cloves	22	@	45
do Mustard	25	@	25
do Ginger	22½	@	27
do Pepper	22½	@	—
do Mace	1 20	@	1 —
SUGAR, ETC.			
Cal. Cubs per lb	—	@	11¼
Circle A crushed	—	@	11¼
do granulated	—	@	10¾
Golden C	—	@	9½
do Extra	10	@	10¾
Hawaiian	20	@	22½
Cal. Syrup in bls.	52½	@	—
do in ½ hls.	35	@	—
do in kegs	40	@	—
SALT.			
Cal. Bay, per ton	6 50	@	15 00
Carmen Island	14 00	@	15 00
Liverpool fine	24	@	—
do coarse	19 00	@	20 00
TEA.			
Oolong, Canton	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyuns	60	@	1 00
Gunpowder, Cant.	30	@	42
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	78
do Moyune	65	@	50½
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

LUMBER MARKET.

CARGO PRICES REDWOOD.		PUGET SOUND PINE—Retail Price.	
Rough, per M	$20 00	Rough, per M	$25 00
Rough refuse, per M	16 00	Flooring and Step, per M	37 50
Rough clear, per M	32 50	Flooring, narrow, per M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	30 00
Rustic, per M	35 00	Laths, per M	3 50
Rustic, refuse, per M	24 00	Furring, per lineal ft	1c
Surfaced, per M	32 50	Rough, per M	$25 00
Surfaced refuse, per M	22 50	Rough refuse, per M	20 00
Flooring, per M	30 00	**REDWOOD—Retail Price.**	
Flooring, refuse, per M	20 00	Rough Pickets, per M	18 00
Beaded flooring, per M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, per M	30 00
Half-inch Siding, M	22 50	Siding, per M	27 50
Half-inch siding, ref. M	16 00	Tongued and Grooved, surfaced, per M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, per M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half inch Battens, M	22 50	Rustic, per M	42 50
Pickets, rough, per M	14 00	Battens, lineal foot	1c
Pickets, rough, p'ntd	16 00	Shingles, per M	3 50
Pickets, fancy, p'ntd	22 50		
Shingles, per M	3 00		

San Francisco Retail Market Rates.

WEDNESDAY NOON, Jan. 22, 1873

FRUITS, VEGETABLES, ETC.					
Apples, per lb	4	@	10	Carrots, per doz	20 @ 25
Pears, per lb	5	@	12½	Celery, per doz	75 @ —
Grapes	6	@	25	Cucumbers, each	— @ —
Apricots, lb	—	@	—	Tomatoes, per lb	25 @ —
Pins Apples, each	50	@	1 00	Green Peas	15 @ 20
Bananas, per doz	15	@	—	String Beans	— @ —
Canteleups	—	@	—	Cress, per doz bun	20 @ 25
Watermelons	—	@	—	Dried Herbs, lb	35 @ —
Cal. Walnuts, lb	20	@	—	Garlic	10 @ —
Cranberries, per g	—	@	1 00	Green Corn, doz	— @ —
Strawberries, lb	—	@	—	Lettuce, per doz	25 @ 35
Raspberries, lb	—	@	—	Mushrooms, per lb	15 @ 25
Gooseberries	—	@	—	Horseradish, per lb	15 @ 20
Cherries, per lb	—	@	—	Okra, dried, per lb	50 @ —
Orangss, per doz	50	@	1 25	do fresh, per lb	— @ —
Limes, per doz	35	@	50	Pumpkins, per lb	2 @ 3
Figs, fresh Cal	12½	@	15	Parsnips, doz	— @ 25
Figs, Smyrna, lb	25	@	50	Parsley	20 @ 25
Asparagus, lb	50	@	—	Pickles, per gal	50 @ 75
Artichokes, doz	75	@	1 25	Radishes, doz	25 @ —
Brussel's sprts,	8	@	10	Summer Squash	— @ —
Beets, per doz	20	@	25	Marrowfat, do	3 @ 4
Potatoes, New lb	5	@	8	Hubbard, do	3 @ 4
Potatoes, sweet	3	@	3	Dry Lima, shl	8 @ 10
Broccoli, per pc	15	@	25	Spinage, per bskt	25 @ 50
Cauliflower	10	@	25	Salsify, per bnnch	10 @ —
Cabbage, per doz	75	@	1 00	Turnips, per doz	20 @ 25

POULTRY, GAME, FISH, MEATS, ETC.

The supply of poultry is ratber limited. Chickens ars scarce. There are plenty of ducks in the market. Hare and rabbits are not very plentiful. Fish are scarce. Salmon trout $1 to $1.50 each. Oregon salmon are from 75 cents to $1 each—both ars just beginning to come from the Sacramento river. There are no silver smelts, soles, or sturgeou in the market.

Chickens, apiece	87½	@	1 25	Whittaker's	20	@	23
Turkeys, per lb	25	@	—	Johnson's Or	20	@	22½
Mallards, per pair	1 00	@	1 25	Flounder, per lb	30	@	37½
Tame, do	1 25	@	—	Salmon, per lb	—	@	—
Teal, per doz	2 50	@	3 00	Smoked, new,	30	@	—
Geese, wild. pair	75	@	1 00	Pickled, per lb	6	@	8
Tame, per pair	2 50	@	2 50	Rock Cod, per lb	12½	@	15
Snipe, per doz	2 50	@	—	Cod Fish, dry, lb	10	@	12½
Quails, per doz	2 50	@	—	Perch, s watsr, lb	12½	@	—
Pigeons, dom. do	4 50	@	—	Fresh water, lb	15	@	18
Wild, do	—	@	2 00	Lake Big. Trout	30	@	—
Hares, each	—	@	50	Smelts, large per lb	15	@	—
Rabbits, tame	50	@	62½	Small do	12½	@	—
Wild, do, per dz	—	@	2 00	Silver Smelts	—	@	—
Beef, tend, per lb	20	@	—	Soles, per lb	—	@	—
Corned, per lb	8	@	10	Herring, fresh	4	@	5
Smoked, per lb	15	@	—	Sm'kd, per 100	—	@	1 00
Pork, rib, etc., lb	15	@	—	Tomcod, per lb	15	@	—
Chops, do, per lb	15	@	—	Terrapin, per doz	—	@	7 00
Veal, per lb	8	@	10	Mackerel, p'k, ea	—	@	15
Cutlet, do	20	@	—	Fresh, do lb	—	@	—
Mutton chops,	8	@	15	Sea Basa, per lb	—	@	—
Leg, per lb	—	@	12½	Halibut	50	@	—
Lamb, per lb	18	@	—	Sturgeon, per lb	—	@	—
Tonguss, bsf, ea	6½	@	1 00	Oysters, per 100	1 00	@	—
Tonguss, pig, sa	75	@	—	Chesp. per doz	75	@	1 00
Bacon, Cal., per lb	—	@	13	Turbot	50	@	—
Oregon, do	18	@	—	Crabs per doz	1 00	@	—
Hams, Cal, per lb	18	@	—	Soft Shell	37½	@	—
Hams, Cross'd s o	20	@	23	Shrimps	10	@	—
Choice D'ffield	20	@	23	Prawns	—	@	1 00
				Sardines	10	@	—

MISCELLANEOUS.

Corrected weekly by B. SEARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. per lb	40	@	50	Syrup, S.F.Gol'n	40	@	45
Cheese, Cal., lb	17	@	23	Dried Apples	7½	@	10
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	9	@	10
Flour, ex. fam. bl	6 00	@	6 25	Dr'd Figs, Cal	9	@	10
Corn Meal, lb	3	@	3½	Dr'd Peaches	8	@	10
Sugar, wh. crsh'd	12	@	13	Oils, Kerosene	—	@	50
do lt. brown, lb	9	@	11½	Eggs	—	@	70
Coffee, Sherboro's family grind, lb	—		27½	Wines, Old Port	3 50	@	5 00
Coffee, green, lb	18	@	22	do Fr. Claret	1 00	@	1 25
Tea, fins blk, 50, 65, 75		@	1 00	do Cal, dz. bot	3 00	@	4 50
Tea, finst Jap, 55, 75, 90		@	1 00	Whisky, O. B, gal	3 50	@	5 00
Candles, Admant'ine	17	@	25	Fr. Brandy	4 00	@	10 00
Soap, Cal., lb	—	@	10	Rice, lb	—	@	12½
Can'd Oysters, dz	2 50	@	3 75	Yeast Powders, dz	1 50	@	2 00

* Per lb. † Per dozsn. ¶ Per gallon.

Leather Market Report.

[Reported for the Press by Dolliver & Co.]

SAN FRANCISCO, Wednesday, Jan. 22, 1873.

The price of sole leatber continues the same. French stocks have advanced 5 per cent., and importers are firm in their prices.

City Tanned Leather, per lb			26@29
Santa Cruz Leather, per lb			26@29
Country Leather, per lb			25@28
Stockton Leather, per lb			26@29
Jodot, 8 Kil., per doz		$90	00@ —
Jodot, 11 to 19 Kil., per doz		66 00	@ 85 00
Jodot, second choice, 11 to 16 Kil. per doz		55 00	@ 70 00
Lsmoins, 16 to 18 Kil. per doz		75 00	@ 77 50
Levin, 12 and 13 Kil., per doz		68 00	@ 70 00
Cornellian, 16 to 19 Kil., per doz		63 00	@ 65 00
Cornellian, 12 to 14 Kil., per doz		56 00	@ 60 00
Cornell an Females, 14 to 16 Kil		65 00	@ 70 00
Ogcrau Calf, per doz		54 00	@
Simon, 18 Kil., per doz		60 00	
Simon, 20 Kil. per doz		65 00	
Simon, 24 Kil. per doz		72 00	
Robert Calf, 7 and 8 Kil		35 00	@ 40 00
Franch Kips, per lb		1 10	@ 1 30
California Kip, per doz		55 00	to 70 00
French Sheep, all colors, per doz		8 00	@ 15 00
Eastern Calf for Backs, per lb		1 10	@ 1 25
Sheep Roans for Topping, all colors, per doz		9 00	@ 13 00
Sheep Roans for Linings, per doz		5 50	@ 10 50
California Russett Sheep Linings		1 75	@ 5 50
Best Jodot Calf Boot Legs, per pair		5 25	
Good French Calf Boot Legs, per pair		4 50	@ 5 00
French Calf Boot Legs, per pair		4 00	
Harness Leather, per lb		30	@ 37½
Fair Bridle Leather, per doz		48 00	@ 72 00
Skirting Leatbsr, per lb		34	@ 37½
Welt Leather, per doz		30 00	@ 50 00
Buff Leather, per foot		18	@ 23
Wax Side Leather, per foot		20	@ 22
Eastern Wax Leather		26	

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San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, Jan. 22, 1873.

IRON.—			
Scotch Pig Iron, per ton	$50 00	@	55 00
White Pig, per ton	50 00	@	55 00
Refined Bar, bad assortment, per lb	— —	@	— 06
Rsfinsd Bar, good assortmsnt, per lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sbset, No. 14 to 20	— 08	@	— 08½
Sbset, No. 24 to 27	— 08	@	— 09
Horse Shoes	9 00	@	— —
Nail Rod	10½	@	— —
Norway Iron	9	@	— —
Rolled Iron	—	@	— —
Other Irons for Blacksmiths, Miners, etc.	5½	@	6½
COPPER.—			
Braziers	— 45	@	— 48
Copper Tin'd	— 50	@	— —
O. Nls 's Pat	— 55	@	— —
Sheathing, per lb	— —	@	— 45
Sheathing, Yellow	— 38	@	— 40
Sheathing, Old Yellow	— —	@	— 13
Composition Nails	— 28		— 30
Composition Bolts	— 28		— 30
TIN PLATES.—			
Plates, Charcoal, IX per bnx	17 00	@	— —
Plates, I C Charcoal	15 00		— —
Roofing Plates	14 00		— —
Banca Tin, Slabs, per lb	— 45		— —
STEEL.—English Cast, per lb	— 20		— 22
Drill	20

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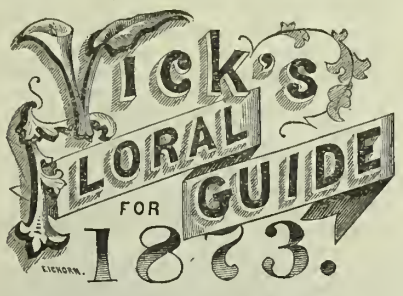
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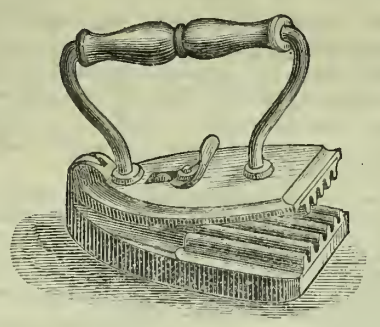
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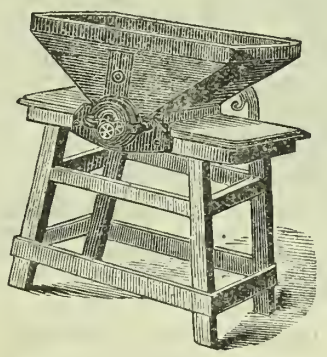
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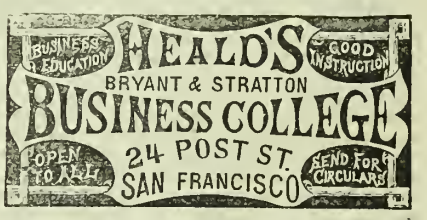
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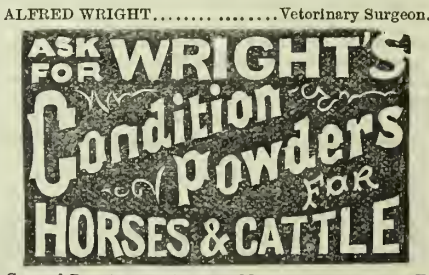
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DOMESTIC ECONOMY

Pierre Blot on Gravies.

Among the very important articles which the cook prepares, there are none moro important than the gravies which aid to render the meats palatable when placed upon the table. Most of our cooks have an idea that a little melted fat and some burned or raw flour stirred in, makes a wonderful gravy. But they don't. They never did. A gravy should add to the flavor of the meat, and should heighten it, and render the meat more savory; common gravies generally do the contrary. Listen to the Professor:

A cook is not more immaculate than any one else, and has the most difficult task in any, no matter what profession or trade. A chemist may begin and finish his work at any time; it is the same with the carpenter. A metal-worker must strike when his metal is hot and ready to work, but he does it—that is, heats it—at any time he chooses. A cook cannot select his or her time to work; the work has to be done at a precise time, and must be finished in spite of any mishap, at a precise time. If the work is accelerated, it may take away part of the flavor of the dish prepared. The same result will follow if the work happen to be doue too slowly. Many excellent dishes are spoiled by not being served at the proper time. Everybody knows the difference between a steak served directly from the gridiron and one that has been kept in oven far a short time.

As a gravy is indispensable to roast meat, we will tell our readers how to make it. The best meat is generally fat, especially a joint, a turkey or a chickeu, etc.; therefore, when the meat is roasted, there is scarcely any liquid but fat left in the pan. As fat must not be served, the joint or bird is dished and put in the oven, the door of which is left open; all the fat is turned off the pan, broth is put in it instead, and the pan is placed over the fire. Take a wooden spoon, stir gently all over the bottom of the pan, give one boil, turn the contents over the joint through a strainer, and serve. You then have a gravy that deserves that name, and not a greasy, muddy substauce, as uninviting to the eye as it is to the palate.

On meeting Dr. Dixon. oue day, he accosted me smilingly, saying, "Blot, my wive engaged a new cook yesterday, a very queer cook; she took me for a chicken, and put flour in my gravy." The digestive apparatus of man was not made to digest raw flour. When flour is used in the composition of a sauce, it must first be properly cooked.

Broth is easily and cheaply made. A careful cook will get almost enough to make as rich broth as is necessary for the soup, sauces and gravies, in the trimmings of basting pieces, the bones of roasted joints of beef and veal that are generally left on the dish, and the bones of turkeys and chickens. When there is not enough of the above, a pound or two of beef, according to the size of the family, may be bought to make the broth. The pieces for soup are either from the shin, leg or chuck piece, and must be fresh. The broth-kettle, or digester, is placed on the fire with the water and meat in it, and the scum skimmed off carefully as soon as it collects on the surface. After being skimmed, the vegetables are put in, and then it is simmered (not boiled) for five or six hours. Every green-grocer knows the vegetables necessary to season broth. When done, it is strained, the fat that floats on the top is removed by means of a ladle or large spoon, and it is ready for use. In Eugland they call broth, stock. In the kitcheus of English lords and other rich families, there is a large pot or kettle ou the corner of the fire, in which the broth is made; it is there all the time, from moruing till evening, and used for all cooking purposes. Heuce the word stock given to it.—*Harper's Bazar.*

GRAHAM ROLLS.—Take cold Graham pudding, mix in either Graham or white flour until you have a stiff dough; when thoroughly mixed, cut in pieces of an equal size, take one piece at a time, sprinkle well with fine flour, roll in the hands patting the ends to keep them even until you have a roll three or four inches long and 1¼ thick, lay them on a platter or moulding board, have the oven the right heat, not quite as hot as for water gems—but about right for milk gems—wing off the grate, lay them about one inch apart. If baked right they will be a light brown, and light enough to crack open. Corn meal pudding can be used in the same way by working Graham, white or rye flour. This is very convenient for those who have not the cast-iron bread pans.

SAUSAGE MEAT.—If you want it extra nice, take two nice fresh hams and one shoulder; take off the skin and have it chopped nicely, season it with salt, pepper, sage, and a little sugar. If you like spiced meats, use with that a few cloves, some mace and nutmeg. Keep it in a dry, cool place, and fry it in balls, or stuff the skins when you first make it for dried sausages.

MIXTURE FOR CLEANING SILVER.—Common prepared chalk, or whiting, ½ lb.; gum camphor, ¼ oz.; aqua-ammonia and alcohol, of each, 1 oz.; benzine, 3 oz.; mix well together, apply with a soft sponge, and allow it to dry before polishing.

How to Keep and Cook Mackerel and Codfish.

The following suggestions with regard to keeping and preparing pickled mackerel and other salt fish are condeused from an article on the subject by Mr. Isaac Hale, of Newburyport, Mass., who has more than a merely local reputation as a packer of fish, and as an "expert" on all matters thereto pertainiug:—

To keep mackerel nice, and prevent rusting, be sure that they are kept uuder the pickle. If the pickle should get below the fish, fill up with more made by putting salt in cold water. The cellar, or some place in which you have no fire and an even temperature, is the best place to keep all kinds of pickled fish.

For boiling, soak 24 hours; for broiling or for baking, soak 48 hours. In the latter case, cream or milk can be used for cooking them in. To avoid the unpleasant rising up in the throat after eating, which many persons experience, skin the mackerel before cooking, and a white, pulpy substance will be found, which adheres to the skin, and which causes this strong taste.

Dry codfish should never be boiled, as the flesh is harder the more it is boiled. Strip up fine, then soak in cold water until quite soft, and before bringing to the table change the water, and put over the fire and just bring to a scald, and it is ready for use. After preparing dry fish in this way, turn the water off, add a small piece of butter, and a milk or flour gravy, and you have an excelleut breakfast dish.

To keep dry fish nice, and prevent sliming or drying up, pack them snugly in a box, and cover up air-tight, put in a room that has no fire (not in the cellar unless it is a dry one), and they will improve much by age. Always purchase slack-salted dry fish, if you want the best. English, Portsmouth, or some other salted fish are much better, and also cheaper, than the heavy, thick, pickle-salted fish, as they will swell much in soaking, while the latter will shriuk. Never select a white looking dry fish for a good one, but rather one of a yellow cast.—*Journal of Chemistry.*

Delicious Black Fruit Cake.

Two pounds of raisins, two pounds of currants, one pound of almonds, one pound of citron, one pound of sugar, one pound of butter, one pound of flour, one dozen eggs, one teaspoonful of mace, one tablespoonful of cinnamon, one nutmeg, one wineglassful of brandy, and one of wine. Cut up the fruit, but not too fine. Roll it in flour to separate it. Then beat it into the eggs after they aro beaten perfectly light; also the butter aud sugar after they are creamed together. Let the rest of the flour be lightly stirred in just before putting the cake in the oven. Put embers under it, and let it rise for three hours.

Bake slowly for three hours, or until, by trying with a straw, you find it quite done. Then draw the oven away from the fire, and let the cake soak at least two hours, or if it is very large, leave it in the chimney corner all night. Do not cut the almonds more thau three times, at most, and reserve a portion of the citron to be sliced and stuck in the cake after it is put in the mold, ready for bakiug. In stickiug it in, let the pieces go down in the dough out of sight, or they will be thrown out iu the risiug of the cake. The above minute directions, as will be observed, are peculiarly adapted to cooking by an open fireplace; yet the recipe has been so well tested by fine mauagers that we thought it best not to alter it, but allow each person to accommodate it to the working of their own cooking apparatus, as may easily be doue by any one possessing a moderate degree of skill in the art of cake-baking.

A GOOD AND SIMPLE CURRY POWDER.—Oue of our Boston druggists seuds us the following recipe for curry powder, which is not ouly much simpler thau the oues usually given, but has been eudorsed as excellent by persous who have been familiar with the condiment as prepared in the East Indies: "Mix one ounce of Cayenue pepper, four ounces anise, and two pounds tumeric."

PIES RUNNING OVER.—How many cooks are troubled with their pies running over. I have fouud the cause is baking too fast on the bottom; and if I cannot regulate my oven, I slip a piece of tin under them. Custard and puupkin pies often puff up, with air under the crust, from the same cause.—*Mrs. L. Jennings.*

CUCUMBER SAUCE.—An excellent sauce may be made by cutting a cucumber and onion as small as millet seed, and adding a teaspoonful of cayenne pepper, a wine-glass of Madeira, the same of vinegar, and a little salt.

PETUNIAS.—If I could have but one kind of flowers, it should be Petunias, said an eminent florist. Seed sown in the open ground in May will produce flowering plants in June that will make a brilliaut bed through the summer and autumn. The blotched and striped is the most showy variety. Sow the seed thinly in a seed-bed, covering with fine soil, and when the plants are an inch or more high, transplant eighteen inches apart into rich soil, and they will completely cover the ground in a short time.

HOME AND FARM.

Plant Trees—A Few Words to Boys.

An old Scotchman gave this homely bit of advice to his son: "John, be aye stickiug down a tree, for that will be growing while ye are sleeping."

This advice is as worthy of attention as when given years long ago in bonny Scotland, and I affirm there is no State in the Union where there is so much need of planting trees as iu Califoruia, and would urge upon the boys who are so fortunate as to live in the Goldeu State of the Union, and are the readers of the RURAL PRESS, to make their mark upon the surface of this beautiful and favored land, by planting a tree "that will be growiug while you are sleeping;" and if the summons comes early in lite, (which must come once to all), the trecs you have planted, and cared for will be something precious in the hearts of your parents, aud brothers, sisters and friends. If you grow to manhood and perhaps go huudreds of miles away to gain a livelihood, you may never realize any pecuniary benefit from them, but when you turn your steps homeward, after a long absence, next to your kindred will be the thoughts of "my trees."

You will Love Your Trees.

Any tree that you have planted, cultivated, watered and pruned, and watched its growth, you would naturally have an affection for, an honest pride in; it would have a value in your eyes that would be lacking in any other tree, to which you had not given such attention.

No man has lived in vain who has planted trees in his boyhood, that have grown to be useful and beautiful; no matter if he never shelters under their branches or eats of their fruits, some one else may, and *you* may be benefitted by another's tree planting. This is a world of compensations and retributions.

How the Writer Planted Some Trees.

Many years ago there was not a weeping willow in my native towu in the State of New York. Those of my acquaintances who had tried to raise them told me the soil was so dry and gravelly they would not thrive. I was visiting a friend in a neighboring town where there was a thrifty young weeping willow growiug, near a watering trough. I broke off two branches about three aud a half feet loug, perhaps half au inch in diameter, and told my friend I would see if I could not raise some willow trees. I put them in the carriage and my friend said jocosely, "I suppose you will start a nursery with those two twigs." "I solemnly intend to," I replied. After I got home, I begau to look about my father's premises to find a suitable spot for my willow nursery. Where the soil was rich aud moist there was no protection against cattle and sheep, and where the fences were right the soil was uot what I wauted.

I put on my thinkiug cap, for I knew that a suitable locatiou was of the first importance, and as I could fiud none at home I determined to look for one among my neighbors. I started out one fiuo morning with my twigs iu my hand, went to a friend's a mile away, who had two or three acres around her house, euclosed for a garden, fruit trees, raspberries and blackberries. No cattle, horses, sheep or hogs were allowed inside that enclosure. The lot was a sort of basin formed by small hills on the east and west sides, on the uorth side the road was turnpiked very high to give an easy grade, and uuder the road was a culvert to couvey the surface water from the ditches beside the road, also the water from a large living spring, which ran through the middle of this lot formiug a tiny brook, which had au outlet at the southerly end of the enclosure.

Beside this little brook the lady gave me permission to plant my twigs. The brauches I cut iuto seven pieces, tied a loop in the end of each piece, planted the loop about two and a half iuches deep in that rich, moist loam, and about three feet apart. I drove a small stake for a support, and tied the end of each twig, which were five inches above the ground, to the stake with a narrow strip of cloth, having in mind the old adage, "As the twig is bent the tree's inclined." I wanted my trees to grow straight towards heaveu, their motto to be "onward and upward;" no knarled, twisted or scrubby trees would suit me. I said I will traiu them right at the start, give them the right cultivation, just as I will my boys and girls, if it is my lot to have any.

I won't let them make a wrong start thinking bye and bye they will see the folly of growing crooked and grow straight, but while they are young aud pliable I will train them the way I wish them to go.

The first season I visited my willow plantation once or twice a week, as if to reward my care and attention, the twigs sprouted nicely aud grew splendidly. I planted them the last of April; by the first of September I had to replace the stakes with much longer and stronger ones. By the first of November the bodies of the trees were an iuch and a half in diameter and some of them higher thau my head.

I cannot hope to make my youthful readers understand the pride and satisfaction I had in watching the growth of those trecs till they have made the trial of planting as I did. They grew so fast the first summer that they were not very hardy. The ensuing winter was a severe one, and the tops were winter killed. In the spring I cut away the dead wood, oue tree I was obliged to cut down within two feet of the ground. They grew finely the next season; in November were three inches in diameter and well framed. I had kept shortening in the long branches and cutting all the sprouts that came up at the foot of the trces, and now a nice hardy top was formed that withstood the rigor of winter. The next spring all but one of the trees were transplanted, but from the dryness of the soil, none grew as well as the one that I left by the brookside in its original location, when I went away to the Western States where I was absent nearly five years.

The Return.

Iu my rambles about my native valley after my return — next to seeing my family and friends—was a desire to sce my trces, and they did not disappoiut me. They had done credit to their early training. Some were laboring under adverse circumstauces from want of uoisture in the gravelly soil into which they had been transplanted, but were doing their best to live and thrive. The one by the brookside was a magnificent tree of its kind, in which my friend took great pride.

She took much pleasure in telling people that came to visit her when the tree was planted and by whom. No work I ever did in that place afforded me so much satisfaction as the little labor I bestowed ou those trces. I hope to live and die in California; but though far away from my old home those trees are green in my memory. Whilo I am waking or sleeping my trees are still growing. The birds—the feathered songsters of Nature's orchestra—are swinging on their limber twigs, aud singiug their songs of praise and happiness. I hope they will build their nests iu the branches, and rear their little birdies with no mischievious boys or marauderiug cats to molest or make them afraid.

Auother week I intend to give you some hints as to the kind of trees to plant, and how to plant and cultivate them. I like iudustrious, intelligent, active boys, who aspire to something higher than eating peanuts and candy, playing truant and smoking a cigarette.

Good-bye, now boys, hoping to obtain your attention and regard. I am your adopted

AUNT ANNA.

Sheep and Alfalfa.

A few days ago the sheep of the State were rather unceremoniously "read out of the party" by one of the San Francisco papers in an editorial entitled, "A Sheep is a Public Enemy." The reasons assigned were that sheep-grazing occupies too much space, and that our lands could be more advantageously used for other purposes. E. W. Peet of this city, demurs, and presents figures to show that the decree is unjust.

He states that 1,000 sheep purchased at $3 per head, and placed on land that may be bought for $10 per acre, will pay for the land, or nearly so, in two years. A Stockton paper states that a stock-raiser in that vicinity named Dodge has purchased 2,000 high-grade sheep at $7 per head, which he will place upon 100 acres of alfalfa land, aud will thereby realize a net profit of $35 80 per acre.

As our lands are gradually taken up and divided into small farms the natural pastures for both sheep aud cattle will of course become more contracted. A different system of stock-raisiug must be adopted, or our large herds must be driven from the State. This phase of the business has not been entirely overlooked in this vicinity. Charles Watt & Co., of this city, who own a sheep ranch in the foothills, purchased a farm a year or two ago on the south side of the American river twelve miles from the city, and are sowing alfalfa on all land adapted to its production.

The first lands sown have been successfully used in sheep graziug. They have kept fifteen sheep to the acre on this grouud and believe they can do so all the year round. They divide the fields, and after one tract is eaten off the sheep are placed in another inclosure until the alfalfa in the first has had time to renperate, which it does very rapidly. Sheep thrive finely when confined exclusively to this feed.

A considerable portion of our valley land is too dry for alfalfa unless irrigated, but there are millions of acres which will yield an immense growth of it if once successfully seeded. A moderate degree of moisture is indispensable. The higher tule lands are well adapted to this crop. The root is however, entirely destroyed by water standing on the ground a few weeks in the spring.

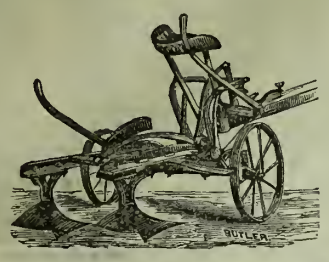
Tule lands subject to overflow cannot therefore with certainty be depended upon. Under favorable circumstauces five crops per year of two tons per crop may be cut for hay from an acro of altalfa. Such vast yield will, of course, provide for large herds of sheep on small tracts of laud.

When stock-raising and farming are properly combined our farmers will be able to economize in many ways so as to save that which they uow waste or destroy. The straw and stubble aloue which are now burned would constitute an important item of profit if fed to sheep or cattle. No farm should be without live stock to consume its unmarketable product, and none should be overstocked.

Vegetables of several varieties which are easily raised iu large quantities may readily be made available for winter food. The economical habits of New England and Europe might to some extent at least be advantageously adopted in this State. The above is from the Sacramento *Union* of a recent date, and we commend its careful perusal to our readers.

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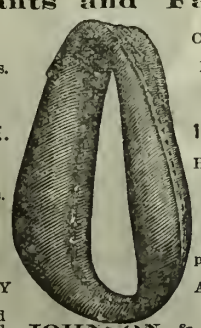


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HAVE YOU SEEN THOSE

New Style Florence Sewing Machines?
New Style Florence Sewing Machines?

They are the Latest Thing Out.

THEY

Run the Work to the LEFT of Operator.
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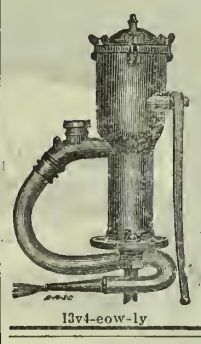
The New Fasteniags are Patented, and used solely hy the Florence Sewing Machine Co.

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THE ONLY RELIABLE PUMP FOR

Farmers, Stockmen and Stable Keepers,

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Working in Wells from

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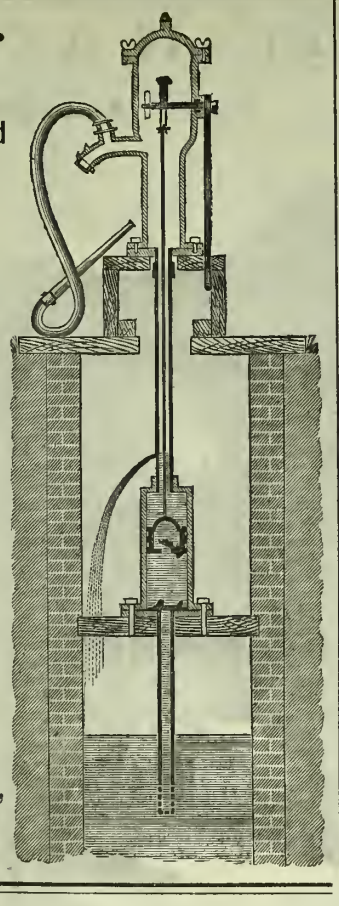
RATE IN PRICE, FROM $13 UP.

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13v4-eow-1y

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Nos. 3 and 5 Front Street.....SAN FRANCISCO.

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—OF—

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
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Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

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HYDRAULIC RAMS, ETC.

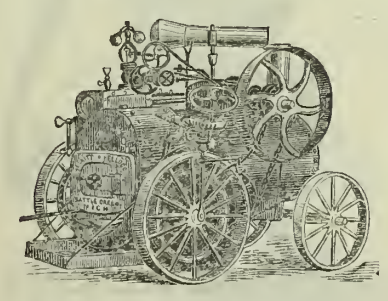
Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

KELLER & CO.,

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AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

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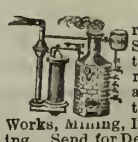
EXCELSIOR MOWER AND REAPER.

☞ Please call and examine. 17v4-1y

WILCOX'S

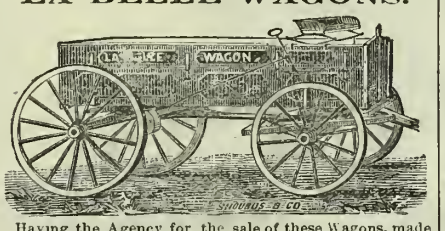
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With neither Engine, Piston, or Plunger.



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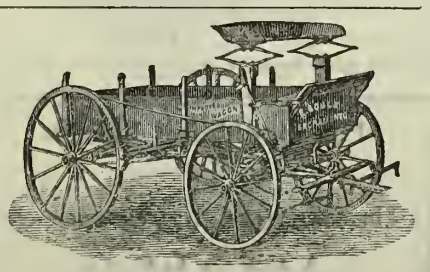


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ap22-3m San Quentin, Cal.

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Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

Stock Notices.



SULTAN SECOND.

See description in Pacific Rural Press January 4, 1873.

Address N. GILMORE,
2v5-eow El Dorado, El Dorado County, Cal.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OR—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, fou miles from Railroad Station, connecting with all part of the State. For particulars address

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El Dorado, El Dorado county,
5v3-eow-tf California.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down SHEEP.

—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGH BRED on either side you breed FORWARDS." —*Alexander*

"You get no FIGS from THISTLES"—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

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Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.

10v3-3m

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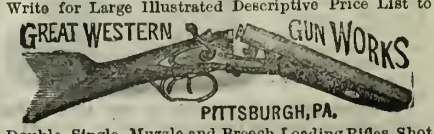
The California Short Horn Durham Breeders' Convention will meet, pursuant to adjournment, at the GRAND HOTEL, in the city of San Francisco, on the Evening of the first Monday of February, 1873, at eight o'clock, for the completion of their organization, and other business. All breeders of these cattle and their grades are respectfully invited to attend.

ja18-3t G. N. SWEZY, Secretary.

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

Write for Large Illustrated Descriptive Price List to



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Double, Single, Muzzle and Breech-Loading Rifles, Shot Guns, Revolvers, Pistols, etc., of every kind, for men or boys, at very low prices. Guns, $3 to $300; Pistols, $1 to $25. 5v25-eow26t

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MANTEL PIECES, ETC.,

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21v2-1y

MERINO RANCH, Niles Station,

Alameda County, California.



The Merino Ranch

Recently purchased by us, is situated in the San Jose Valley, near the junction of the San Jose & C. P. R. R., and only five minutes' walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond, S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane including two lots of lambs, some of which are represented in the above cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and to offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thorough-Bred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Severance & Peet,

IMPORTERS AND BREEDERS OF THOROUGHBRED SPANISH MERINO SHEEP.

IMPROVE YOUR POULTRY.

IT COSTS NO MORE TO KEEP **Good Fowls** Than Poor Ones.

OAKLAND POULTRY Yards,

Corner Sixteenth and Castro streets.

SEND STAMP FOR **ILLUSTRATED Circular** CONTAINING A FULL **DESCRIPTION** Of all the BEST KNOWN And Most **Improved BREEDS** —OF— **POULTRY,** —TO—

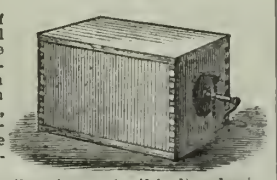


GEO. B. BAYLEY,

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☞ Advertised in ILLUSTRATED PRESS.

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Those in want of BOX-CHURNS will do well to call at the old stand, 113 Commercial street, San Francisco, between Davis and Drumm, and examine our improvements before purchasing elsewhere.

The undersigned is the pioneer in this line, having manufactured them for the last ten years in this city.

☞ Patent applied for.

14v22-3m H. G. PRATT.

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Lewis & Pander, Dealers in Stoves,

Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

FRESH GARDEN SEEDS.

ALSO,

Grass and Clover Seeds

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Trees, Plants, Roots, Etc.,

For Sale at Wholesale or Retail by

GEO F. SILVESTER,

No. 317 Washington Street,

☞ Send for a Catalogue.

GUANO.

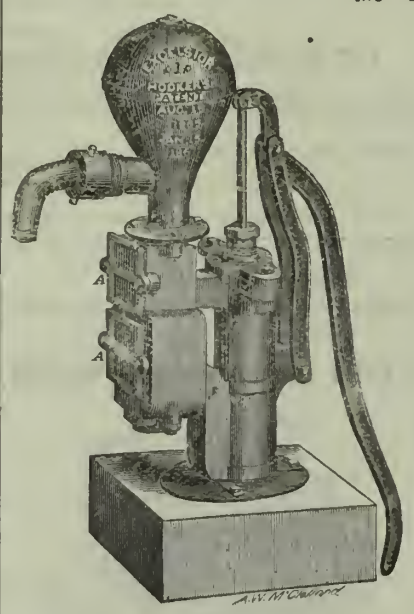
100 Barrels Guano for Sale,

In quantities to suit purchasers.

6v2-1y-16p GEO. F. SILVESTER.

THE "EXCELSIOR" FARMERS' PUMP.

After Six Years use proving itself the Best Pump on this coast, and consequently the CHEAPEST.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

REMEMBER,

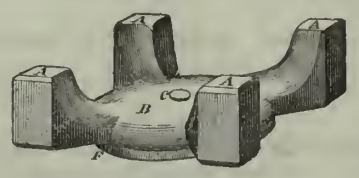
Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

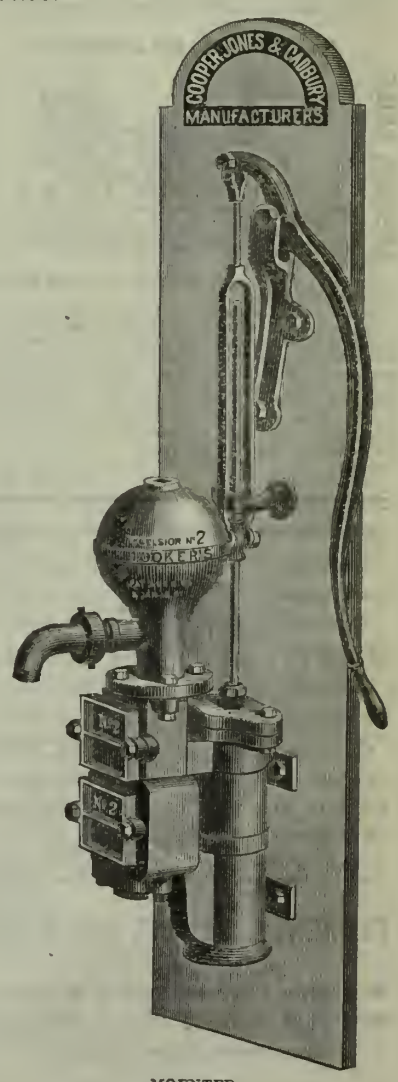
So simple every farmer can keep it in order.

Every Pump Warranted,

With no expense, if defective, to the purchaser.



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23v4-13t

ARCHITECT J. J. NEWSOM No. 430 MONTGOMERY ST. S. F.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, FEBRUARY 1, 1873. [Number 5.

Shrubs and Plants Under Shade.

We often find in large ornamental grounds, as well as small gardens, that some of our handsomest trees and evergreens grow so rapidly in our soil and climate that they take up finally, notwithstanding skilful and proper pruning and clipping, rather more space than we feel willing to allow them, beautiful and graceful as they may be. We wish to fill up the ground under them with some things that will be pleasing to the eye; but many plants will not prosper in the shade; we therefore look out for those which will succeed under such circumstances. These are found, chiefly, to consist of rhododendron and kalmias, the Belgian azaleas, hollies, hemlock, aucuba japonica, dwarf-horse chestnut, box-trees, stuartias, yews, American arbor vitæ—the Chinese arbor vitæ will not succeed—dogwoods, the sanguinea is very ornamental and suitable, snowberries, junipers, euonymus japonica, privet, clethra alnifolia, spicewood, hawthorn, hydrangeas, lily of the valley, periwinkle, mahonias, daphne pontiea, wild violets, anemone pensylvanica.

Ferns in some sitnations, where there is shade, are appropriate. These are a very favorite class of plants with many. True, they are destitute of conspicuous flowers; but, then, their exceedingly graceful habit, and delicate green-colored foliage, amply compensate for this apparent loss, for it is not a real one, many of the fern tribe having fructifications of, to say nothing else, great curiosity. What a grand effect has a complete collection of these interesting plants, from the most gigantic *Tree Fern*, of Australia, to the most puny *Lycopod*. But, like all other natural families of plants, to be brought to perfection, they require a location to themselves. To be seen to the best advantage, a mass of artificial rock-work in the place of a stage, with here a little pool of water, there a sparkling jet or fountain with the drooping ferns and lycopods hanging over the edges. Something of this kind may be seen at Woodward's Gardens, but we should like to see a better and more complete display of this most fascinating vegetation there. We understand Mr. F. A. Miller, florist, is getting up a fine collection of ferns, both from this Coast and from abroad. It is a good plan to insert amongst rock work, and and without seeming intention, large distorted, gnarly, half-decayed tree stumps; into the cavities of these, a host of the most lovely ferns would find an appropriate home. The Elks-Horn Fern (*Achrosticum alcicorne*) would here look beautifully, clasping the old stump, and sending up its singularly shaped fronds. The beautiful Hare's-foot Fern (*Davalia canariensis,*) would extend its Hare's-foot-like creeping Rhizoma, and form a striking contrast, besides numberless others from all parts of the world. Lycopodiacea would form the carpet or undergrowth of this ideal Fernery. As ferns and mosses almost, without exception, love-shade, we would plant here and there a large single stemmed plant of the L. c. arboreum kind. We hope to see Mr. Woodward indulge the public taste by instituting a complete Fernery, somewhere in his attractive grounds and plant houses, etc.

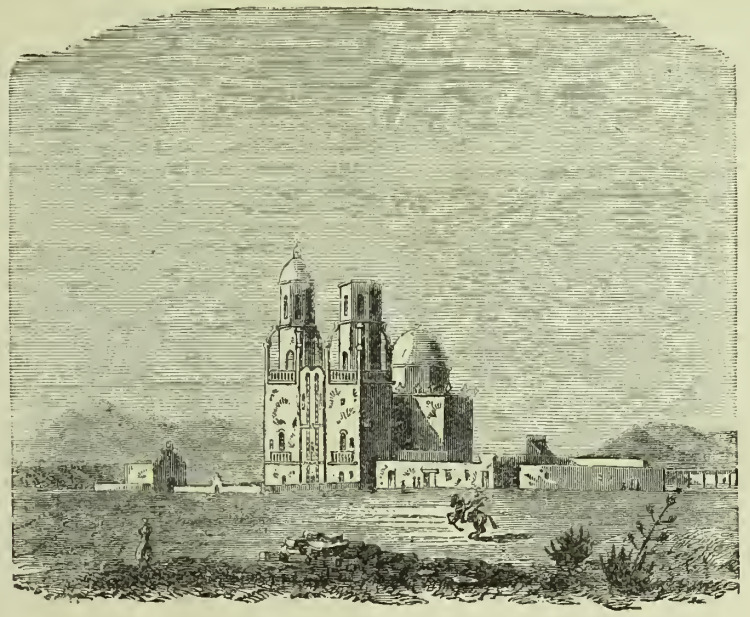
Home Industry.—The Mission and Pacific Woolen Mills have added another brauch to their business, by undertaking the manufacture of Ingrain carpets. Their mills have attained such a reputation both at home and abroad by their superior products that there is no doubt but that the carpets will be as good if not better than those made in the East.

Japanese Progress.—An industrial fair and exhibition is to be held in the city of Kioto, in Japan, in March, and a number of San Francisco manufacturers are about to forward articles to that place. In view of the increasing trade with the Orient our artisans and manufacturers should take advantage of every opportunity to show their wares, and get the business orders before Eastern agents are able to do so.

One of the Old Churches.

We sometimes like to linger along the great highway of life and if possible, here and there gather and garner up one of the rapidly paling leaves of history. And though they appear to us in temples of rock, reared by the hands of men, they are still but frail records of the past, perishable, mouldering leaves of time.

In fancy we can call up the history and condition of the beautiful valley of San Xavier Del Bac, one of the earlier homes of the Jesuit Fathers, in Arizona; its beautiful groves of olives, palms, orange and fig trees, and gleaming in the sunlight, the gilded domes of the magnificent church of that ancient and holy order; but it would be only fancy; for though hardly more than a century has passed since its loveliness was the historian's and even the poet's theme, now all is barren and desolate.



MISSION CHURCH OF SAN XAVIER DEL BAC.

The soil once teeming with all the wealth of forest, fruit and flower, now only reflects from its parched and seared surface, the dancing and dazzling rays of a tropical sun. The glory of its irrigating aqueducts has departed and only the ruins of what was once the grand Church of the Mission, remain as a shattered and torn leaf to record the place of early, laborious, but for the time being, successful missionary labor.

Asparagus and rhubarb—pie-plant— are in our markets, grown in the Sacramento Valley.

The Poison-Oak and its Antidote.

In the woods and thickets of California, as well as on the dry hillsides, and, in fact, in every variety of locality, may be found a very venemous shrub—the "poison-oak" or "poison ivy;" the *hiedra* of the Spanish people—the dread of all those who are acquainted with it. This plant is known scientifically as follows: it belongs to the natural order *Anacardiaceal*, and is called *Rhus diversaloba* by Torrey and Grey; *Rhus lobata*, by Hooker; and *Rhus toxicodendron*, by Hooker and Arnott. It is similar to the poison ivy of the Atlantic States (*R. texicodendron* Linnæus), both in its appearance and in its poisonous qualities. But it is unnecessary for me to describe it, even popularly; for it is unhappily familiar to all, and I will only remark that, although generally a small shrub, the trunk sometimes attains the diameter of six inches, and the whole plant climbs over some large tree for support. The finest specimens that I have ever seen were in an oak and laurel grove, on the road south to San José.



LEAF OF THE POISON-OAK.



POISON-OAK IN MINIATURE.

I do not need to describe the cutaneous disease that is produced by contact with or approach to the poison-oak. And it is hardly necessary to advert to the fact that this poison is the cause of a vast deal of misery and suffering in California, and that there is scarcely ever a time in any little town or neighborhood when there are not one or more persons suffering from it. Farmers and laborers are especially liable to this poisoning, and besides the suffering and annoyance caused by it, the loss of valuable time is no small item to be taken into account. Truly he who makes known a prompt and sure autidote to this poison will be a public benefactor; and this communication is made to the public with the confident expectation that the remedy here described will prove to be such benefactiou.

The remedies in use for the effects of the poison-oak are quite various, and some of them will cure the milder cases. Of all the common remedies, the warm solution of the sugar of lead has withiu my experience been productive of the best results. The water of ammonia, warm vinegar and water, the warm decoction of the leaves of *Rhamnus oleifalius* ("Yerba del Oso," of the Californian-Spanish), or even pure warm water, are sufficient sometimes to produce a cure. All these remedies are, of course, applied externally by way of washes to the parts affected. But the only remedy that I have found invariably successful as an antidote for this poison, is an indigenous plant growing very abundantly in this vicinity (Monterey), and in other parts of the State. It is a tall, stout perennial, belongs to the composite family, and looks like a small sunflower. It is from one to three feet high, has bright yellow flowers in heads one or two inches in diameter (and as I have said), like small sunflowers, flowering from June to October. Before flowering, the unexpanded heads or buds secrete a quantity of resinous matter, white and sticky, like balsam, that is finally, after the flower expands, distributed over the petals, etc., of the flower like varnish. The whole plant—flowers, leaves, and all, is resinous and viscid. When it grows on dry hills, it is stiff and rigid, with narrow, thin leaves; but in damp localities it is more robust and succulent, with wide, fleshy leaves. Its botanical name is *Grindelia hirsutula and G. robusta;* but I have not been able to find more than one species, and all the different forms possess the same remedial virtues.

The mode of using it is as follows: Bruise the fresh herb and apply it by rubbing over the parts affected; or, boiling it in a covered vessel, make a strong decoction of the fresh or dried herb, with which to wash the poisoned surfaces. Its remedial properties appear to be contained chiefly in the resin or balsam-like juice of the plant, which is particularly abundant on the surface. One application is sometimes sufficient for a cure; but if the disease has been of long duration, several days will elapse before relief is obtained. This plant is a remedy for the poison-oak, used originally by the Indians of this vicinity, and by them its virtues have been communicated to the Spanish-Californian people, who are now commencing to use it.—*C. A. Canfield, M. D.*

Thimble or Salmon Berry.

Among the berries indigenous to this coast there can be found none more delicate and luscious in flavor than the Thimble or Salmon berry, which we have met with in all portions of the State, through which we have traveled, extending from Lake county on the north to Santa Cruz on the south. In form and flavor it resembles the Red Antwerp raspberry and, indeed, if a basket of Salmon berries could be brought to market it would be readily taken for the former. We have never heard of any attempt to improve the natural stock of the Salmon berry. It is exceedingly fragile in its texture and deliquesces, (that is the only term that properly expresses the rapidity with which the ripe fruit dissolves into liquid sweetness) with great rapidity. If any of the readers of the Rural know of any successful attempt to domesticate this delicious berry they will confer a favor by making the facts known through our columns.

The wine product for Los Angeles County this season is estimated at 1,400,000 gallons. Farmers have stopped plowing on the mesa lands entirely. The barley planted before the recent rains looks well, and will get along about three weeks longer without rain.

POPULAR LECTURES.

The Ancient Sea of the Sacramento Valley.

The lecture by Amos Bowman, of the Geological Survey, on Thursday evening, Jan. 16th, was one of much interest to all who desire to become acquainted with the wonderful geological events which preceded and led immediately to the present configuration of the country now embraced within our Pacific States and Territories, and during which our immense deposits of auriferous gravel were formed, and which ultimately resulted in raising from the depths of the sea those broad and fruitful planes from the surface of which our farmers are now realizing such immense harvests of golden grain. The lecture took a wide range, and embraced much to which we cannot now refer. We propose now to simply confine our report to a few notes on the early physical condition of this Coast, the Pliocene rivers of California, the origin of the auriferous gravel deposits and the condition of

The Ancient Sea of the Sacramento Valley.

After a brief introduction, including the explanation that the Pliocene Period was the concluding epoch of the last great geological subdivision of time, at the conclusion of which the upright, mammalian, walking and articulating man, made his appearance on the earth, the speaker pictured to his audience the Pliocene Sea, which once occupied the region now known as the Sacramento Valley, and extending from near Shasta on the north to the extreme southern limit of the Tulare Valley on the south.

Standing upon the top of some jutting rock, about midway up the Slope of the Sierra Nevada, and looking westward, before you lies this vast departed sea of the period of the ancient rivers, embraced in one grand sweep of vision, extending some three hundred miles in length, and covering about 30,000 miles of area, with a depth of over a thousand feet below the present bed of the Sacramento river, as is shown by the Stockton artesian well, which yielded golden sands to nearits bottom. The Marysville Buttes were then a fiery island, like Stromboli, of the Mediterranean. Farther to the north was Mount Shasta, built up to a hight of 14,000 feet by its erupting lavas. Still further north, Mounts Hood and Baker—twin-brothers of Shasta—presented their lofty summits, belching forth fire and smoke. Directly in front of the observer were Mounts Diablo and Tamalpais, between which were the straits, which connected this sea or gulf with the ocean. In the rear, and not far distant, might have been seen a long line of volcanos flaming up from far into Oregon, and following the present summit of the Sierras, as far south as Silver Mountain, Mono, and beyond.

This ancient sea was separated from the ocean by a range of low hills or islands, along what is now known as the Coast Range. The waters stood on the flanks of the Sierra Nevada at an altitude of about 600 feet, above the present base of the foot-hills — near the level of where is now Shasta City; above Horse Town; not far from Oroville and Timbuctoo; somewhere between Pino and Auburn; above Knight's Ferry, and not far below the base of the Tuolumne and Calaveras Table Mountain. The shores of this ancient pliocene sea, the adjacent islands and the gentle slopes of the Sierras (not then as high as now) were clothed with forests, differing materially from those now existing in that locality, and embracing countless numbers of palms. Huge turtles wallowed in the shallow bays, and strange antediluvian animals, — huge elephants, twice as large as any now in existence; oxen of proportionate size, and mastodons, tapirs and camels roamed through the forests. Horses were then natives of this continent, and primeval man, differing materially from any present races, was then existing, and with the animals joint possessors of the soil, and a witness of the grand physical phenomena to be described. He alone, however, of the animals named, was enabled to survive the convulsions of nature and changes of climate; and this he did by his well-known independence of geographical range and conditions, and his superior capacity for guarding against the vicissitudes of time and change.

At this time those famous rivers, the gravel-filled beds of which are now affording such abundant harvests of gold mines, were pouring their waters into the pliocene sea. Such was the physical and topographical condition of things in this portion of the world in the pliocene era—a hundred thousand years ago, more or less. But as change is Nature's law, this state of things could not exist forever.

Following those changes as recorded in the Book of Nature—and God tells us no uncertain, half-told tale, but always leaves us a sample piece from which we may reason inductively or by analogy—we arrive at

A Series of Grand Natural Events—Filling up the Ancient and Opening the Present Rivers.

Corresponding to great periods of time, which were stated by the lecturer substantially as follows:

1st.—The Pliocene or ancient eroding period, during which these deep, "dead" river channels were cut into the "bed-rock."

2d.—These Pliocene channels filling up with gravel—or the choking or damming period.

3d.—The active volcanic period of the Sierra when the gravels were capped with lava and volcanic ashes.

4th.—The cold or glacial period, when the mountain slopes were covered with living, moving glaciers.

5th.—The modern erosive, or recent period, during which the present river channels were formed, crossing the old channels at various angles.

This peculiar action of successive erosions and filling was not due to local causes, as it applies with great uniformity to all the streams alike, throughout four or five degrees of latitude.

We solve the problem of the Pliocene rivers when we ascertain what made the rivers cease cutting, at some period in the Tertiary, and fill up some 1,200 feet with gravel and boulders at the end of the Pliocene—as marked by the volcanic outbursts—to renew the extraordinary erosive action which has resulted in our present world-famous cañons. Only two causes of a general nature, such as the case calls for, can be mentioned:

1st. Changes in the quantity of rain; or, 2d, changes in the grades of the rivers. The same or even a larger quantity of water would have been inadequate to clear the cañons of the loose, red material from the hights where such water was enabled to disengage it, and to bring it as far as to the cañons, where the gravel remains to this day.

A rainless Pliocene period, such as would be implied under the first condition, we know from the rich tropical character of the vegetation found fossil in the gravels, could not have existed. A rainless period would not have produced the washed gravel boulders, loosened and rounded and carried as far as the deep cañons and then dropped. There would not have been power to produce any gravel, to say nothing of transporting it.

The speaker ascribed the filling to a lessening of the grades, perhaps by the force which caused the uplift of the Coast Range. This uplift occurred during the Pliocene period to the extent of at least 800 feet, near Mount Diablo.

Filling up the Sacramento Valley.

The filling up of the Sacramento Valley commences with the earliest uplift of the Sierras. The earliest rivers which once flowed through what are now known as the ancient river channels, emptied their debris into the Sacramento Valley, through, perhaps, as many channels as now conduct their waters down the flanks of the Sierras. After the filling up of those rivers and the opening of the present river system the same flow continued until this ancient sea bed has been thus gradually filled up throughout its whole extent, some 300 miles in length by 50 in breadth, with an average of several hundred feet in depth, or until its bed has been raised to the level of its main and only present outlet through the straits of Carquinez.

The Movements of the Stars.

The third of the Polytechnic Course of Lectures, by the University Professors, was delivered on Saturday, Jan. 18th, by Professor John Le Conte, at Corinthian Hall, on the "Stars and their Movements." The interest in these lectures is well manifested by the large attendance. We regret that the want of room compels us to confine our notice of this interesting and instructive lecture to a brief synopsis.

Immensity of Space.

Discussing the vast distances of the fixed stars, the lecturer said that beyond the boundaries of our solar system there is a vast and almost illimitable abyss of space — a vast, empty chasm, in which no material body of any considerable magnitude exists. A portion of this space is traversed by comets which have long periods of return. If any large body exists there, though it might not be seen by the eye of man, yet it would make itself known by the disturbing influence of its attraction.

Under the guidance of science, man has also become fully assured that beyond this immense void a stellar universe exists, the nearest members of which are so remote that the mind of man can scarce comprehend the vast distance. Moreover, the many striking indications of the unity of plan which pervades the universe leads us to believe that all the stars which we see in space are centers of other systems, and are also separated from each other by a similarly wide void, which we find around our own solar system.

Distances of the Stars.

The Professor proceeded to explain the difficulty which early astronomers experienced in demonstrating the absolute fact of the wide separation of the fixed stars from our system. The well-known principles of the measurement of distances by geometry and trigonometry were first applied by using the diameter of the earth (eight thousand miles) as a base. Next the diameter of the earth's orbit was employed, giving a basis of about 190,000,000 of miles. At first the imperfect instruments employed would admit of measuring only 1,719 times the diameter of the earth's orbit; but by degrees the perfection of instruments has been carried to such an extent that a distance can now be measured equal to 1,031,324 times 190,000,000 of miles; which expressed in words would be about twenty millions of millions of miles!

When we reflect on stellar distances we are overwhelmed with the immensity of the numbers required for their expression.

Our Sun an Exceedingly Small Star, as Seen from other Systems.

The lecturer said that a globe large enough to fill the entire space enclosed within the earth's orbit, would appear at the distance of the nearest fixed star hardly larger than the third satellite of Jupiter, and of course invisible to the naked eye. [From this comparison we may infer that our sun, immense as it seems to us, when compared with any one of the fixed stars, must bear quite as small a proportion as would a globe of only some 10 miles in diameter to the entire bulk of the earth!]

The problem of the movements of the stars and their distances was not fully solved until 1838, when Bessel announced the results of his observations on 61 Cygni. These observations were further, and more fully verified in 1839-40.

CORRESPONDENCE.

Eastern Correspondence.

EDS. RURAL PRESS:—The annual meeting of the Western New York Horticultural Society was held at Geneva, Jan. 8th and 9th. It was attended by most of the prominent horticulturists of western New York, besides many from Ohio, Pennsylvania, New Jersey and Canada, and it was more than usually interesting and profitable. P. Barry was again chosen President, and doubtless will hold the office, which he so ably fills, as long as health and strength will permit.

Reports from the various standing committees were made, and after the reading of each, discussions followed upon that subject. Among the many very able papers read was one from S. C. Maxwell upon new evergreens and ornamental trees.

President Barry gave us a very interesting description of new seedling pears received by him from California, and that from the promise of these that we need not look to Europe for new pears henceforth, as many of this first experiment from one planting of seed from one variety of pears, apparently equalled our best pears, the product of centuries of experiments from thousands of plantings throughout all Europe.

Col. Brooks, Chairman of Committee on Entomology gave us a very amusing and instructive report upon the benefits and injuries from our insect tribes with the best known remedies or preventives of their ravages, as well as a description of their appearance and habits.

Dr. E. W. Sylvester Chairman of Committee to report shipments of fruit gave a detailed list of the number of barrels of apples sent East from the four counties of Wayne, Monroe, Orleans and Niagra, including a part of Ontario, which amounted to 750,000 barrels, to which add amount sent south, west and north—sold to towns and cities near by, used at home and made into cider and we have a total of 1,000,000 to which add the quantity dried, fed out and wasted, and we have a branch of husbandry of no mean magnitude. The value received in money being $1,500,000. One-tenth of this amount is now sent to Europe with a gradually increasing demand.

The subject of fruit growing was discussed at length and decided to be one of great and growing importance. Two new patent machines were represented—specimens of fruit shown and tested—and the general opinion seemed to be that both were very promising and worthy of trial.

Mr. Willard gave his observations and conclusions in reference to cause and remedy for pear blight, which was simply a perfectly drained subsoil as deep as roots go. Most members thought this was not a sure preventive of blight in their experience, and that as yet no cause or remedy was known.

An expression of opinion was then given on the six best pears for profit; all decided that Bartlett, Duchesse, B. D. Aujon and Howell were four, while each of the following four had about equal votes, viz.: B. Clairgean, Lawrence, Seekel and L. Bonne.

Prominent among the fruits on exhibition were Elwaye's & Barry's collection of forty-three varieties of pears and forty-five of apples, T. C. Maxwells & Bro's. a fine collection of apples, several new seedlings by different parties, and samples of well-kept grapes by Dr. Sylvester.

Officers for following year: P. Barry, President; J. V. Jones, G. H. Moody and S. Larowe, Vice-Presidents; W. Bissell Rochester, Secretary and Treasurer. J. B. JONES.

Macedon, New York.

Watering Plants.

EDS. PRESS:—The author of this article being a botanist would say a few words in relation to this matter which interests every lover of ornamental growth. He has in passing through this city, noticed many fine gardens garnished with plants from different portions of the world some requiring more, others a lesser quantity of water. It is, he thinks, an absurd idea, that a garden requires a drenching every day; he thinks the shower should be made to represent a rain at the season in which you apply it; in other words, it should be applied gently and should be applied in the evening, for the reason that plants grow more at night than in the daytime; of course the absorption is more gradual than it is if they are watered in the day time.

Some plants, as I before stated, require more and others a lesser quantity of water; for gladiolas, fuschias, descidiums, pansies, primroses, dahlias and cowslips require more water than verbenas, geraniums, roses, lilies, etc. The best plan in watering is never to imitate a fireman extinguishing a burning building, nor a cartman washing his cart, but use a sprinkler on the nozzle of your hose and leaving a dried space around the plant, shrub, or tree as the case may be, from the size of a common saucer for small plants growing singly, to the size of a large sized barrel head; water thoroughly in this manner and you will find a decided improvement, so much so that you will decrease your expense for water fifty per cent.; the object in leaving the dried space is to secure gradual absorption. SABANDRIA.

Packing and Grading Wool.

EDS. PRESS:—We would earnestly call the attention of wool producers to the importance and great benefits to be drrived from properly packing and grading their wools. About seventy-five per cent. of the shipments to this market arrive in the most unsightly condition, the wool hanging (if not dropping) from rents and tears in all parts of the bag. This is not so much owing to the careless handling of the railroad employé, wharfinger and truckman, as it is to the loose packing done by the producer. A loosely packed bag, will, on being turned over a couple of times, first, nod its head, and next get its back broken; it becomes a very unwieldly thing to move, and falls first when and where it should not; hence the rents and tears above mentioned.

A well filled bag, on the other hand, is, in spite of its greater weight, easily and safely handled, simply because the wool being firmly and solidly packed the whole parcel does not run away from you. To properly pack wool, build a wooden frame with four uprights and cross beams, about two feet taller than the bag; to the top of this fit an iron ring about two feet in diameter, and thereto attach the mouth of the bag, allowing the body to fall through the ring; throw in about six fleeces at a time, then get in yourself and tramp them well down, being careful to press those on the outside, so as to leave the bag tight and smooth all over.

Our producers are also in the habit of sending in their wools in any and every condition, without the slightest regard to grades, opining that the good will sell the bad. In this they are mistaken. Purchasers invariably examine first carefully enough to detect the defective or burry fleeces, and by these, and not by the choice, will they determine the average quality of, and the price they will pay for the lot. Some of the best clips in this State, and they are those which are always most sought after, and consequently bring the highest prices, come in four classifications, each of which has its appropriate mark; they are graded as follows: Rams, (mark R.); clean ewe or wether (no mark); lambs, (mark L.); and burry and belly (these last together, marked B.); of course, if only slightly burry, a fifth class can easily be made.

Each grade may bring its respective figure, but as a rule the ram, clean ewe and lamb wool are sold in one lot, and the burry and belly in another. The advantage derived from the classification lies in the fact that both purchaser and seller know what is before them, and can arrive at a fair valuation, which it is impossible to do with any degree of certainty or satisfaction, when all four are mixed up. Before closing this letter, which is already growing too long, I would also state, that those parties raising "mixed" flocks, would find it much to their advantage to divide the 'long' from the "fine" wools. Yours,

WOOL DEALER AND PRODUCER.

The foregoing hints are timely and well made. Too little attention is given to the packing of our wools, and we hope for the credit of California wools in Eastern markets and the pecuniary results that must accrue to producers from a more perfect mode of packing, that the above excellent suggestions will be heeded.

A Question for Discussion.

EDITORS RURAL.—In your last issue you invite the readers of the PRESS to send in subjects for the farmers' clubs to discuss.

I beg leave to suggest the following as a subject worthy of their attention: Whether, in planting orchards, we take trees from the nursery rows, or plant the seed where we want the tree to remain.

I remember the old seedling orchards of my boyhood days, among the limestone hills of the Ohio River Valley, and how thrifty and tenacious of life they were, notwithstanding years of neglect.

One orchard in particular, I can call to mind, planted on a hillside near the banks of the beautiful Ohio, that bore fruit of fair size and quality for many years after the owners had ceased to cultivate or bestow any care on them whatever. My experience in California with nursery-grown trees has been immediate decline as soon as cultivation ceased. J. M.

St. Helena, Napa County.

Home and Farm.

Tree Planting—Advice to Boys.

In my former letter I promised to give some few hints to the boys what kind of trees to plant and how to plant them. It is best to aim to plant trees that are useful as well as ornamental. A tree may be useful for its fruits or nuts, or for timber, or a wind-break. Ornamental trees are useful if they cultivate a love of the beautiful in a family, and we usually look for refinement and a good share of intelligence where we see noble trees and a well kept flower garden about a dwelling house. If any of my boy readers conclude to plant fruit trees, let them bear in mind that digging a small hole like a post hole, thrusting down a tree and banking the dirt up around it, is not the way to begin. Trees from a nursery are taken from a soil kept in the highest state of cultivation, hence the ground to which they are transferred should be well plowed first, and a large hole dug to give ample space for the tap root and lateral rootlets. Place the tree so that it will set the same depth in the ground as it did before removal, giving the roots their natural position; throw in the dirt free from stones, packing it firmly around the tree, which must stand perfectly perpendicular.

After planting fruit trees see that they are protected by a strong fence, from cattle and sheep, and look out sharp for the gophers. If you find any gopher holes uear your trees, take a piece of gunny sack, saturate it with coal oil, sprinkle sulphur over it freely, roll it up and thrust it into the gopher hole and apply a match. Sometimes chloride of lime put into the burrows of such pests will cause them to leave for more congenial locations.

Look after your trees, cut away all sprouts that come up from the roots; for they take the sap your tree needs; cut down the top, keep it in good shape. A fruit tree should not grow like a Lombardy poplar, but have an open, spreadiug top that will let in the sun and air. You will always find some person who will advise you what and how to do, and your experience will teach you, for I don't expect the boys I am writing for will plant a tree one year and stop there, but keep on planting year after year and see their labors crowned with success.

In the Eastern States, farmers' children take great pleasure in gathering beech nuts, chestnuts, walnuts or butternuts to eat during the winter evenings or to treat their friends with. I know of no reason why all of these uuts may uot grow here and come into bearing in half the time they do where the ground is full of frost and trees bare of leaves six months in the year. Chesuuts, walnuts and the large hickory nuts that grow in Missouri, Southern Illinois and Indiana, can all be bought at any of the fruit stands and most of the country groceries. Chestnuts grow in Mendocino Co., and without doubt would grow in any of the Coast counties, or in the foothills, if protected from cattle while young. The proper way would be to plant the chestnuts in the garden, in a uice rich loam, about eighteen inches apart, in rows two feet distant. After they come up, hoe them once a week, keeping them perfectly free from weeds. If they do well they will be ready to transplant the second year, and you need not take the choicest bit of land ou the ranch, but look for some uot convenieut for plowing; even if it is some rocky, no matter. Clear it and grub out all bushes, dig deep holes, and pulverize the soil thoroughly, remove your trees from the ground, carefully taking care not to break any main roots off, and plant them in the same manner as you would fruit trees, and put a fence about them that is hog tight. If any sprouts come up around the trees cut them off and stick them down in some moist spot of ground, and perchance some of them may grow. You will always find a spot to plant them; if not, give them to some of your boy friends, if they will promise to plant them, and see which can be the most successful.

Walnuts and hickory-nuts should be cracked slightly, for there is no hard freezing of the ground in California to help open their hard shells. Plant them first in the garden; treat them the same as chesnuts, only give them a good soil to grow in—an adobe soil would be most like the soil of Southern Illinois and Indiana. The pecan would certainly grow in any of the Southern counties, and butternut trees on bottom lands or near streams; but all young trees need protection from stock of any kind. If all the rocky crests, or steep side hills of California were covered with growing trees of some kind, our streams would not be dried up in summer; the sweep of harsh wiuds would be less severe and disagreeable, and the beauty of the landscape would be increased ten-fold. Chestnut and butternut lumber are both valuable for furniture and inside finishing for dwellings. Hickory is the finest of timber for carriage building and handles for tools, and the nuts from all these trees are very toothsome, as old boys as well as young boys will testify. So I beg the older oues to encourage and help the younger ones to carry out my suggestions. I would like to read in the Rural Press au account of any boy's success in tree-planting. If one kind of tree don't succeed in your locality, plant another or a dozen. Don't be discouraged with a dozen failures—you are sure to succeed in the end.

In years to come I hope to hear of a boys' convention in which this and other practical subjects will be freely discussed and ventilated, so that you will be able to profit by each others experience. A very little money will buy the seed of the locust, gum trees, and pepper, and friends East might save you seeds from the hard and soft maple, if you would write them what you wished them for; or they would send you some butternuts, and shag-bark walnuts. In Ohio there is a fine fruit, indigenous to the country, called paw-paw, which I have never seen or heard of in California, but which I have no doubt would grow in some portion of the State. I have seen oue persimmon tree in California, and that was in Pleasant Valley, Solano county, on the ranch of Mr. Miller. The guava, bananna and plantain would doubtless grow in Southern California.

I am sure we do not yet know one-half of the capabilities of the soil and climate of California. Now, boys, put a shoulder to the wheel and push this tree-planting ahead. Don't wait till you are men; begin now, and when you are grown to maturity these trees will be living monuments of your industry and enterprise, which no one can gainsay. You may "rest" under your own vine and fig-tree, eat of the nuts of your chestnut, walnuts and butternut and pecan trees, or other fruit-trees, or stroll through your groves of locust, cypress, oak or cedars, and no matter who owns the soil, you will feel you have an inalienable right to those trees, of which no one can dispossess you. You have a right of dower in their beauty and fine proportions; they will rivet your attachment to the land of your birth or adoption, as the case may be. You will look with pride and satisfaction on the work of your boyish hands, and tell your boys and girls that you planted those trees when you were so old—whatever your age was at the time of plantlng—and it will stimulate them to try and outdo their father. Such things, if no other benefit should be derived, would be considered ample compensation for all your time and trouble in plantiug and caring for them. I will write you one more letter on tree-planting; but hope you will lose no time, but commence before you get my next letter, for this is the right season.

"Then up! nor wait for the promised hour,
For the good time now is the best,
And the soul that uses its gift of power
Shall be in the present blest;
Whatever the future may have in store,
With a will there is always a way,
And none need burden the soul with more
Than the duties of to-day.
Then up! with a spirit brave and free,
And put the hand to the plow,
Nor wait for the good time yet to be,
But work in the good time now.

Aunt Anna.

Type-Metal Statue of Horace Greeley.

At a Chapel Meeting of the compositors employed on the *Tribune*, held on Thursday, Jan. 9th, 1873, the following Preamble and Resolutions were passed uuanimously:

Whereas, Is has been proposed that the several printing offices in the United States give one or more pounds of old type for the purpose of making a statue of Horace Greeley, to be erected iu the lot in Greenwood where his remains are interred; and

Whereas, Type metal is specially adapted to reproduce sharp and definite outlines, and peculiarly fitted to speak in the mute form of an image to those who, in after years, visit his resting place, as it did beneath the training of his hand, and the grandeur of his brain and the largeness of heart; therefore

Resolved, That we approve of the idea of erecting a statue of Horace Greeley in Greenwood, made of Type Metal which has been cast into type and worn out in the service of teaching the People; and further, be it

Resolved, That we ask our fellow-craftsmen, many of whom, now scattered over the country, have, like ourselves, either worked with or for him during the forty years gone by, to set up, on Monday, February 3d, 1872, the 62d anniversary of Mr. Greeley's birth, one thousand ems, and give the receipts for the same to be expended in making and erecting the statue. The money to be forwarded to the Presideut of New York Typographical Union, No. 6, 22 Duane street, New York City, of which Union Mr. Greeley was the first President.

Resolved, That the above preamble and resolutions be giveu to the press of the United States, with a request that they be printed and circulated as widely as possible.

Vienna Exposition.—The appropriation by the United States Senate for defraying the expenses of exhibiting American productions at the approaching Vienna Exposition, has been increased to $300,000. We have frequently alluded to the importance of this Exhibition to the people of the United States, and are glad to see that active measures are being taken, which will result in an appropriate American display.

Utilizing Buffalo Chips, Etc.—The finest coal slack, dried prairie grass, and the droppings of cows are being made into bricks for fuei in the Missouri bottom. They give out an intense heat and are very lasting.

Miscellaneous.

Changes in Coal by Exposure.

The subject of deterioration, which stone coal suffers by exposure, has, of late, attracted much attention. Different coals are not equally affected by exposure; their texture, their chemical composition, and the impurities which they contain, exercise considerable influence. Under otherwise equal conditions those coals suffer most which have little cohesive strength. Gas coals, after having been long stored, make less and poorer gas than when fresh from the mine.

The Nature of the Changes

Which take place with the coal, and the conditions which influence them, still form a fruitful field for investigation. A large number of interesting experiments on this subject were made by Dr. Richter, Professor at the mining school at Waldenburg, in Prussia, which deserve to be far more widely known than they appear to be. A detailed account of them may be found in *Dingler's Journal*, 1870. Some of his principal results have been stated substantially as follows: As soon as the coal is mined it begins to absorb oxygen, rapidly at first, then more slowly. At first this action appears to be physical, but it soou becomes chemical, when the absorbed oxygen combines with the hydrogen of the coal to form water, and with the carbon, to form carbonic acid. Heat intensifies the chemical action. Powdered stone coal fresh from the mine, heated to a temperature of 350° to 400° Fahr., increased in weight; although carbonic acid and aqueous vapor are disengaged, more weight of oxygen is absorbed. After a while a rather constant weight is obtained, and by chemical analysis, the coal is then found to contain oxygen aud hydrogen very nearly in the relative proportiou in which they combine to water, which has not been the case in the fresh coal. The property of the coal thus rapidly to absorb oxygen depends mainly upon its proportion of free hydrogen. Of the carbon of the coal only 5 or 6 per cent. combines thus rapidly with the oxygen at the stated temperature, while the rest of the carbon is far more stable.

Different coals heated to the boiling point of water until their weight remained constant, would absorb in a humid atmosphere, at 60° Fahr., from 2 to 7 per cent. of water, and it was remarkable to observe that some solid pitch coal would absorb three times as much water as a soft laminated coal. The faculty of absorption could not be judged from the appearance of the coal, but coals from the same stratum exhibited considerable uniformity of behavior. The coals which absorbed most water were also those which absorbed most oxygen. Twenty gramm coal absorbed in the first twenty-four hours after mining from 2 to 9 cubic centimeters oxygen. Stone coal absorbes carbonate acid even more eagerly than oxygen, taking up three times as much of it. At higher temperatures, the chemical action of the oxygen is increased and a slow combustion takes place.

Air dry coal absorbs the oxygen far more rapidly than moist coal, and coal which has been artificially dried absorbs it still more eagerly, taking up at the same time some nitrogen from the air. On the other hand, humidity induces decomposition of the iron sulphuret contained in most coals, which, iu turn, accelerates the chemical changes of the coal by creating heat, by causing it to split and slack, and probably, also, by inducing chemical action between the oxid of iron formed and the coal, if not between the oxygen and coal directly.

Light appears to exercise little influence. When coal has been exposed some time, and absorbs oxygen with little avidity, this absorption is a little greater in the dark. These were the principal results obtained by Dr. Richter.

Paper Window Shutters.— The inventors who have been experimenting with paper for some time past, are now trying to make it useful for window shutters. The preparation used is the ordinary paper pulp brought by pressure to the utmost compactness and solidity, with the lightest possible sheet iron or rather casting to insure stability. This preparation has been brought to a high degree of perfection in Japan, where they are much more skillful in the uses of paper than we are, adapting it to all sorts of articles for domestic use, being, as it is claimed, water-proof, weather-proof, and fire-proof, not liable to breakage like crockery from careless handling, nor in danger of corrosion like most of the metals from exposure. The material has been used to some exteut in this country for furniture, clothing, car-wheels, and many other things out of the ordinary course of things. As the stuff will not burn, the inventors expect to turn it to use as a new safeguard against fire.

Caffenie.—Carefully conducted experiments prove that uone of the active principle in coffee—caffenie—is lost by roasting the berry to a light brown color, and only 0.144 per ceut., when roasted till almost black. Nearly all the caffeire was extracted in pouring boiling water over the burnt and ground coffee, scarcely a trace being found in the "grounds." The physiological action of caffeiue on the system is very similar to that of strychnine. Some are more sensible to that poison, in minute doses, than others; hence the nervous action produced by coffee or tea on some systems, and the absence of any such effects on other systems into which the same amount of coffee or tea is taken.

Important Improvement in Fresco Painting.

The objection against wall paper and ordinary water color fresco painting is the instability of the colors, and the fact that they are not water-proof, and thus so easily damaged. In this respect the most expensive fresco is not better than the cheap wall paper. It may therefore be considered an important step in the progress of this most important art that, as we find stated in the *Manufacturer and Builder*, a Mr. Kemmer, of Newark, N. J., has devised an oil fresco painting, which is painted on a prepared sheet of muslin, and afterwards placed upon a wall like ordinary wall-paper. When so placed upon the wall it is said to be superior to the ordinary method of fresco painting. The use of scaffolding, expensive and cumbrous, in one's appartments for weeks at a stretch is avoided. The decorations can be designed according to order, executed in the shop, brought to the house, and put in place; and instead of the whole building being in confusion for weeks at a time, three or four days will suffice to complete the job. Moreover, better work can be done; the artist is not obliged to labor lying on his back or twisting his head into awkward and painful positions—often in the worst of lights.

Interior decoration is carried on principally during the summer months. Necessarily work is plentiful, skilled workmen are difficult to obtain and expenses are proportionately great. Using this process the labor can be done during the cold weather, when the best of artists are out of employment, and can be had at low wages.

Such a wall or ceiling may be washed like ordinary paint with soap and water, a proceeding which is impossible with common fresco work. The film, though thin, is elastic, and does not crack with the wall, unless very large openings appear which are generally few and susceptible of easy repair. The most elaborate designs can be prepared for any sized apartments.

The work, when finished, has all the appearance of, aud in fact is, elaborate frescoing in oil, and besides being more durable and less expensive, it is equally artistic, and far more readily accomplished.

It will not peal off, as other ordinary fresco painting does so often, while the colors are very permanent, the gilding is not done with bronze powder or Dutch leaf, but with pure gold leaf, which, as well known, will retain its brilliancy, and may be washed with soap and water when put on with oil preparations, as is here the case.

Origin of Meteorites.

The questiou as to whence the meteorites come is one that we are not yet in a position to answer with certainty. The various hypotheses which suppose for them an origin in lunar volcanoes, or in our atmosphere, or, again, in a destroyed telluric satellite, or that would treat them as fragmeuts of an original planet of which the asteroids are parts, or as masses ejected from the sun—all these hypotheses seem to be more or less precluded by the known velocities, the retrograde motion so frequently characterizing meteors and meteorites, or else by the chemical conditions that, for instance, are involved in the passage of the meteorite through the sun's chromosphere. Whether meteorites move or do not move in circumsolar orbits is at present impossible to say; because, while with our incomplete knowledge we cannot to-day attach the character of periodicity to any known class of meteorites, we are not justified in founding any conclusion on a negative result with so limited a fouudation.

But even if all or some of them may have been, on their encountering the earth, members temporarily or permanently of the solar system, we may with considerable probability consider them as having originally entered our system from the interstellar spaces beyond it. Such at least must be our conclusion if we are to admit the unity of the whole class of phenomena of meteorites and falling stars. For, since the orbits of the two best known meteoric streams, those, namely, of August and November, have been identified with the orbits of two comets, and since in regard to one of these (that of November) Leverier has shown, with great probability, that as a meteoric cloud it entered and became a member of our system only some 1,700 years ago, iu consequence of the attractions of Uranus, while the August meteoric ring only differs in this respect from it, that it had at a much more remote period found an elliptic orbit around the sun—we are constrained, on the assumption with which we started, to recognize also in a meteorite a visitor from the regions of remote space. And so far as it goes, the observation by Secchi that the November falliug stars exhibit the magnesium lines is in harmony with this view.—*Popular Science Monthly.*

Voloanio Dust.—The dust thrown up by Vesuvius during its recent eruption, has been ascertained to consist of aggregations of crystallized quartz dotted over with magnetic oxide of iron, also in a crystalline condition, and readily removable by hydrochloric acid. The grains were of microscopic dimensions, very uniform in size, and so small that they would readily pass through a seive, the apparatus of which measured the 16,000th part of a square inch.

Farmers in Council.

Oakland Farming Club

Dr. Carr, President, occupied the Chair, at the meeting Friday eveuing, Jan. 24th. After the reading and spproval of the minutes of the previous meeting, Dr. Carr exhibited samples of cotton in bolls, raised by Stroug, in Mereed Co. It was from the second picking and is said to be of exeellent standard in quality. The Dr. expressed his confidence in the cultivation of the cotton in the above location as well as in more southerly counties of the State.

Dr. Carr also showed a speeimen of rock of a lightish or milky color, containing native quicksilver, in contrast with a sample of the ordinary einnahar (red) ore. The samples were from R. F. Knox, out of the Pioueer mine, near the Geysers, in Sonoma county.

Some samples of pressed ferns, and a variety of forest foliage, were shown by Dr. Carr. They were gathered by Lady Avonmore—(Mrs. Yelverton)—in Borueo. They were of beautiful and gracefnl forms, and quite different from any of natural product in this country.

Mr. Pryal presented, through President Carr, the stub of an uprooted eucalyptus tree of some 4 inches diameter, the tap root of which was of a genuine corkscrew shape, showing that the twist given the roots of the tree hy confinement when in a small pot had prevailed throughout its after growth. A disenssion occurred about setting trees in pots on the part of Messrs. Bagge, Montandon, Holmes and others. They each advised but a limited use of pots for nursery trees, and for a few special varieties only.

Mr. Montaudon recommeuded very deep stirriug of the earth, and also mulching in the planting of trees. Dr. Carr alluded to the fact thst fine pulverization of the soil, by judicious stirriug at times, was equivaleut to mulehiug. In towns, planting trees at the University site, recently he prepared large openiugs aud applied a liberal snpply of well rotted horse manure, mixed in with finely pulverized soil, which he hclieved to he quite judicious. He first had the ground plowed and suhsoiled to the depth of twenty inches.

Mr. Montandou remarked that it is an important matter that the species of trees should be taken in account in determining their proper age for transplsnting. Also, the right season of the year for transplanting depends on hoth the species of the tree and the soil it is to occupy.

Mr. Petersen wished to know how to kill squirrels. It was asserted that Mr. Blair, near Oakland, had poisoned thousands lately. A member said he observed many quails dead ahout the premises of Mr. Blair. On motion a committee were appointed to report the hest method of exterminating squirrels and gophers. The committee consisted of Messrs. Petersen, Bagge and Collins.

Mr. Montandon requested that information he rendered at somc subsequent meeting as to tho feasibility of producing grapes in Oakland, for fresh and rare table use.

Mr. Collins stated ho had purchased 40,000 trecs, chiefly blue gums, for transplsnting on his lands in Santa Clara, at San Buenaventura. They are from six to eight inches in hight, in nursery beds, and he proposes to remove them from the dirt in the bed and "heel them in," several thousaud in a single hox, and forward them by steamer. Would they stand the trip, if watered on the voyage, was the important qnery with him? It was thought they would. He preferred April for setting them out, that they might not afterwards he choked by weeds. His extensive ohservation of the transplanting of evergreens in the Oakland Cemetery conviuced him that the last of March, or the first of April, was the most favorahle season for such work. Cypress trees plauted last fall are already dead in the Cemetery.

Mr. Petersen considers that the most important thing in transplauting trees is to not expose tho bare roots to the open air for any considerahle length of time.

Joseph Lehman, of Oakland was unauimously elected a member of the Club.

By request, Dr. Carr promised to secure the reading of a paper, or the delivery of an address, at the uext meeting—or lecture himself. Adjourned to Feh. 14th.

Vacaville Agricultural Association.

Met at Vacaville on Saturday, the 25th, the members after transacting some important business had the pleasure of listening to an address from T. Hart Hyatt upon the agricultural and horticultural pursuits in California, and more particularly to the cultivation of the Grape. And from personal observations made hy him of the wine seasons of Frauce and Germany, he gave it as his opinion that the soil and climate of California far exceeded any that he had ever found in any country, also he thought the country well adapted to the production of the orauge, aud in fact almost every kind of fruit raised in any county on the globe. After the address, the Association tendered a vote of thanks to Mr. Hyatt for the valuable information furnished hy him; then the Associa- adjourned to meet at Oakdale schoolhouse on the second Saturday in February.

J. Hubkins, Cor. Sec.

Sutter County Farmers' Club.

The Farmers' Club met at the Supervisors, room in the Court House at 2 P. M., President Bockius in the chair. On motion of Mr. Chandler, George Ohleyer was elected temporary Secretary. Miuutes of the last meeting read and approved. John G. Briggs, G. N. Sweezy, B. F. Walton, Wm. Wadsworth and O. M. Walton paid one dollar each and became members of the Club. The eleetion of Secretary being in order, George Ohleyer and B. F. Walton were put in nomiuation. Ohleyer declined, and on motion of Mr. Chandler the Secretary cast the ballot of the Clnb for B. F. Walton, who was declared hy the President duly elected to serve the unexpired term.

The resolution introdueed by Mr. Chandler at last meeting in regard to the Club proceeding to incorporate nnder the general incorporation laws of the State, was ably discussed by Chandler, Bockius, Berry, Ohleyer and others, all desiring to place the members of the Clnh hy co-operation in position to proeure sacks, move, handle, store and sell their crops to the greatest possible advantage. On motion of Mr. Chandler the President appointed a committee of five, consisting of S. R. Chandler, John McIlmoil, B. F. Walton. S. E. Wilson and George Ohleyer, to investigate the subject of iucorporation in sll its detsils and report in writing at next meeting. On motion of Mr. Wilsou, President Boekius was added to the committee.

The subject of trees and tree planting was continued for two weeks.

On motion of Mr. Ohleyer the Secretary was authorized to call on the previous Secretary for all papers, books, etc., belonging to the Club. It appearing that no suitable book for the records of Clnh had heen procnred, the Secretary was requested to purchase sueh book, also book for Treasurer. On motion of Mr. Wilson, Club adjourned for two weeks, until Ssturday, February 1st, at 2 P. M.

B. F. Walton, Secretary.

Ynha City, Jan. 18th, 1873.

Butte County Farmers' Club.

On Saturday, Jan. 25th, the meeting of the Butte County Farmers' Clnh held in Chico Town Hall was well attended, and the interest manifested by those present was very creditable, showing that our farmers were, indeed, alive to their own interests, and were anxious to gaiu sll the information possible, and exchange views upon the various snbjects pertaining to agriculture, which might have a tendency to make farming more profitable.

There were a largo number present whose names were proposed and eleeted to become members, and who signed the constitution and by-laws.

The subjeet for discussion being the most practical mode of transportation for crops to market was laid over for discussion at next meetiug, Saturday the 25th.

The subjeet of the depth of tillage in the different qualities of soils in this section was also offered for discussion at next meeting.

The President, Gen. Bidwell, then addressed the Club, and explained its relation to the California Farmers' Union, showing that by united action of the county and district clubs with the State organization great things are expected to be accomplished this year in the purchase of saeks. He stated that measures had already heen taken by parties in San Francisco to supply sacks, at a low rate, provided orders of the amount needed were given in time, and a small pereentage of the purchase money advanced as an earnest of good faith.

On motion the question of saeks was made the special order for next meeting.

Committee on Order of Business were instructed to furnish subjects for diseussion at future meetings.

State Agricultural Society.—At the annual meeting of the State Agricultural Society, held in Sacramento on the 22d inst., there was an unusually large attendance, when R. S. Carey, of Saeramento, was elected President; Fred Cox, Marion Briggs and M. D. Boruck, Directors, to fill the vacancy occasioned by the election of Carey to the Presidency.

To Punish Destroyers of Fences.—The following sections of the new Code are intended for the protection of fences and the punishment of persons who may wilfully destroy them. They are posted around in handbills on both sides of the railroad track from Cloverdale to Donahue, and on several farms in this vicinity, as a warning to trespassers. We publish them as a matter of interest to every one residing in the country:

Section 1. Any person passing through any enclosure of another and leaving the same open, is guilty of a misdemeanor, and punishable hy a fine of not less than twenty dollars nor more than fifty dollars.

Sec. 2. Any person wilfully or maliciously tearing down fences to make a passage through an enclosure, is guilty of misdemeanor, and punishable hy a fine of not less than fifty dollars nor more than five hundred dollars.

Sec. 3. All fines collected under the provisions of this Act shall be paid into the County School Fund of the county where the offence is committed.

Puget Sound.

This name is growing to he used as a general term for the whole body of sslt water in Washiugton Territory. When we come to teehuicalities, this is the name of a particular part, and there are many names for special parts. We do not think that the accounts of the wonders of this body of water have been exaggerated, though we admit that many have formed exaggerated ideas hy reading them. It must be the controlling point for the lumher trade of the Coast for many a year to come, and its fishing, ship-building and commercial interests must make it famous as well as prosperous.

We have heen asked by so many intelligent persons: "Where is Puget Sound," thst we thiuk it not superfluous to say that it is in the very northwest corner lot of Uncle Sam's homestead farm. We leave out of account the back lot that he hought the other day up at Alaska.

Three Ways to get There.

You can go overland by stage and he sure of the best of coaches, teams and drivers. Probably there is not a better equipped stage-line in the United States than that from Reading to Roseburg. You will find the scenery delightful and grand, as you whirl along the valley of the Saeramento, or gaze upon the mighty peaks of Shasta or Siskiyou. Then the railroad takes you through the Garden Valley of Oregon. At Portland you take the boat for a 5 hours' ride to Kalama. This is a town two years old of 300 to 400 inhabitants. It is the present terminus of the Northern Pacific Railroad on the Columbia River. Here are their car-shops, machine shops and sawmills, and the headquarters of General Sprague, the Superintendent of the Western Division. Of Gen. Sprague we are pleased to say that we hear his praises in the mouth of every one with whom he has come in eontact.

We know another railroad king to whom we thiuk it would be worth a half million dollars if he was as well liked as Gen. Sprague. Politeness costs little hut is valuable capital to a husiness man. You are soon whirled out of Kalama through a rough forest country where fires have made sad work, to Coalbank, where the road has taken a rest for the winter. But the stage is on hand to take you to Olympia, the Boston or Athens of Puget Sound. If you stopped at no point it took you six days to make the trip by this route and cost you about sixty-three dollars for fare and meals from San Francisco to Olympia. Any extra baggage that you carried over 40 pounds cost you 42 cents per pound. If you would enjoy fine scenery and escape an ocean voyage take this route, hut send your extra baggage by steamer if ecouomy is an object.

If you are in a great hurry step down to the Folsom street wharf on Saturday afternoon and take one of Holladay and Breuham's steamers for Portland. You will find the voyage rather rough hut the hoats are well equipped and accidents have been rare on this line. You will stop at Kalama and proceed to Olympia as before. This trip will commonly take you about 4 days and cost you forty dollars

You can go almost as quick by way of Victoria. Steamers run regularly every week, but we cannot speak from personal knowledge of their accommodations. The cost and time will he about the same as by way of Kalama. Sound steamers calling at every port connect with the ocean line at Victoria. It takes the sound steamer 16 hours to run from Victoria to Olympia. You will call at Port Townsend, Pt. Ludlow, Pt. Gamble, Pt. Madison, Seattle, Steillacoom, Tacoma and Olympia; through fare $5. From these points you will find ferries or small steamers for other points. We will write from time to time of what we saw of scenery, climate, terminal excitement, land, lumber, society, etc.

C.

Every Man in his Place.—Within a certain limit it may he said that we make circumstances; hnt there are circumstances which no man can make or unmake. There are some things that fall upon us like a leaden pall, which we cannot uplift. We may try to scare them, but they do not scare; we may try to drive, hut they will not drive; we may try to coax, hut they will not coax. What shall be done? There is hut one way—you must submit to inevitable destiny. You have a place which it is your duty and privilege to occupy, and which no person has any right to occupy; a place which you may demand in the name of God and humanity. In consequence of your pride and ambition, you may not have found that place; you may have ascended one step too high; and must begin, with shame, to take a lower seat; or it may be that you are too low, and must summon your courage, shake off your lethargy, and go up higher.—*Ladies' Repository.*

A Hanging garden of sponge is one of the latest novelties in gardening. Take a white sponge of large size, and sow it full of rice, oats or wheat. Then place it for a week or ten days in a shallow dish, in which a little water is constantly kept, and as the sponge will absorb, the seeds will begin to sprout before many days. When this has fairly taken place, the sponge may be suspended by means of cords from a hook in the window where a little sun will enter. It will thus become like a mass of green, and can he kept wet by merely immersing it in a howl of water.

Agricultural Notes.

ALAMEDA.

Transcript, Jan. 24: New Jute Manufactory.—The monster pipe or smoke-stack hauled up Broadway from the Steamer Louise on Wednesday, was conveyed to the new jute manufactory beyond Brooklyn, where we understand mats, and other articles, such as gunny cloths, matting, etc., will be made.

New Pottery.—Messrs. Miller & Crabb, from Staffordshire potteries, England, are shortly to establish a pottery on a first-class scale at Brooklyn, now East Oakland. They intend to manfacture vases, retorts, garden borders, pedestals, fountains, oven bricks, and in fact all pottery ware required for domestic use. The firm intend to employ from seventy-five to one hundred men.

Glorious Climate.—If there is a country on the face of the globe that can compare with this in salubrity of climate, we don't know its name. Language is entirely inadequate to express the loveliness of our days. Warm, cloudless, with an atmosphere as pure as that of fabled "Araby the blest." Compare it with the snow-buried, ice-bound States at the East, and say if this not a favored land.

Visitors.—During the past pleasant weather Oakland has been thronged with visitors. One gentleman stopped here from the East on his way to San Diego, in search of a salubrious climate. He stopped at Oakland for a few days, and has concluded to go no further. He thinks it will be hard finding a place thst excels this pleasant city. If it isn't Paradise, it must be the intermediate state. He can hardly convince himself that this is mid-winter—he fears he will wake up some morning and find it all a pleasant dream, and himself back in the snow drifts.

Shrubbery for the University.—Prof. Carr yesterday invited the Junior Class in Agriculture to take a little trip to Berkeley, in order to see some shrubbery which is to he set out on the University Grounds. This collection of young trees consists of pines, firs, etc., and will form a pleasing addition to the shrubbery already gracing the grounds, so soon to become the haunt of the University's many students.

CALAVERAS.

Chronicle, Jan 25: Enormous Trout.—The largest speckled trout we ever heard of was caught in Clark's ditch, near the Railroad. The member of the finny tribe measured seventeen and a half inches in length, and weighed six pounds. The trout was caught twelve miles below the head of the ditch, by turning the water out, leaving his fishship floundering in the mud. About two hundred other members of the trout family, of lesser note, were taken at the same time.

CONTRA COSTA.

Ledger, Jan. 25: Tulare Lake and Antioch Canal.—Senator Cole introduced a bill, on the 18th inst, giving the right of way, and very moderate grants of land, to sid in the construction of a commercial and irrigating canal from Tulare Lake to Antioch. This is *the* great want of the San Joaquin Valley. The broad fertile seres may be ever so rich, the land may be ever so well tilled, "Paul may plant," but "Apollos" *must* water, else there shall be no increase. Suppose there is but one failure every five years, a good crop raised by irrigation, would, tho first dry season, pay for building the canal. We hope Senator Cole's bill will pass, and work go steadily on till accomplished.

Sherman Island. — We took a peep across Sherman Island during this week, and were much gratified at the appearance of things. The island now seems nearly or quite dry, and the new addition to the levee appears to be sufficient to stand as a barrier against the highest tides experienced here or the greatest pressure that is likely to be made against it by the outside bodies of water. There is also more of the island in cultivation, or rather, in preparation for cultivation this year than ever before. The whole fifteen thousand acres are now reclaimed from water, and the energy, courage and confidence displayed by the owners and settlers, must in a few years convert it into a magnificent possession. When the turf-surface is burned, there is no difficulty, and hut little labor in putting in the crop at once, but when the turf has to he torn by plows for the first time it is rather rough for the first year or two, and machinery for harvesting is worked with some difficulty. The teams, also, owing to the soft nature of the soil in some places, must have their feet webbed with hits of boards fastened to iron, and called tule shoes. But this same treacherous and rough surface will, with a year's cultivation, settle down and rot away, so that it is beautiful to work thereafter. The exhaustless richness of the soil, the accessibility by cheap freight to market, and the-as-yet cheapness, make it land worthy to covet. As we stood upon the island and looked off upon our rising village, soon to have rail communication with the Bay city, I thought of the stream of travel and trade that will ere long spring up hy means of a ferry to all parts of the island.

MONTEREY.

Argus, Jan. 25: Flax.—We learn that a good deal of ground will he sown to flax this year in the valley around Salinas City. While in that town the other day, Mr. W. L. Carpenter informed us that W. T. Armstrong was intending to put in a thousand acres on the Alisal, and himself at least one hundred acres more. The seed is furnished by the Pacific Oil and Lead Works, San Francisco, who also contract for the

entire crop at three cents a pound. We do not know whether any of this article will be raised around Castroville; but if any of our farmers are going into that line of products, we should be pleased to know it.

Wool-growers are in excellent spirits at the flattering prospects of the Spring clip. Sheep have not suffered for want of good feed, and the weather has been very favorable. As a consequence the staple will be long and stroug, and command a good price.

NAPA.

Reporter, Jan. 25: Fine Wheat. — The finest stands of wheat to be seen between Youutville aud Napa City, are on the premises of Mr. D. Emerson and Mr. J. D. Blanchar. Both pieces were sown on land that was in corn last year. These gentlemen are thorough farmers, as can be seeu at a glance from the order and neatness prevailing about their premises, and the advanced state of their work. J. D. Blauchar has put in his whole farm this season, unaided by hired labor. To such perfection are agricultural implements brought in Napa Valley, that a man can do nearly all his own work, the season permitting.

Prospect for Crops.—No better prospect for a huge wheat turnout all over the State could be wished for, than appears at present for 1873. Some croakers predict a dry season, but this is usual, for if they did not predict that, they would, in their morbid propensity for prophesying, be certain to prognosticate a wet one. At any rate, Napa Valley is certain of a good crop, and farmers may rejoice at the certainty of plenty, though they may not possess sufficient *sabe* to take advantage of it when selling time comes.

Big Mushroom.—Mr. G. N. Cornwell gathered a mushroom on the side of a stone wall near his residence, in this city, which measured nine inches across the top. It was two inches through the center of the cap, and the stem was three inches in circumference. In flavor it was equal to any mushroom ever eaten. What country in the world can beat it ?

Register, Jan. 25: Our Crop Prospects. — Never were the prospects better for a grand harvest iu this section of country. The rains were abundant to wet the ground thoroughly, and the continued fair weather is enabling farmers to plow and sow to their satisfaction. Much grain is already up—even three or four inches high. A couple of weeks more of favorable weather will allow about all our farmers to finish their work, and then light spring rains will ensure them a beautiful harvest.

Fish for Clear Lake.—The California State Commissiouers have made arrangemeuts for breeding white fish at Kelseyville, iu Lake couuty. The fish, when hatched, will be put iuto Clear Lake.

Hard to Beat.—Mr. Pugh, of the County Hospital, yesterday exhibited three beets, of one year's growth, weighing together 103 lbs. They were raised on the Hospital grounds. Our sick folks ought to thrive on such fare.

Danger to Fruit.—The remarkably pleasant weather is starting the sap, and the danger is that promature blossoming will expose fruit to spring frosts, and diminish the quantity.

NEVADA.

Republican, Jan. 25th: Ice.—The ice com pany ou Prosser creek are actively at work storing ice. They have two acres of old ice yet to harvest which will average eleven inches in thickness. Their facilities for storing ice are admirable. The ice, after being cut in the pond, is floated to the dam, and from thence it slides down an incline in a sort of open flume which is about 20 inches wide. The bottom of the flume consists of two boards, six inches wide, and on each of these boards is fastened a strip of half-round iron, the oval side being uppermost, so that the blocks of ice iu sliding over them meet with less friction. The grade is about fifteeu inches to the rod, and the ice is propelled by its own gravity to any part of the ice house desired, and scarcely any handling is required. There is descent sufficient from the dam to carry the ice to the highest portion of the ice house. The company had about thirty men employed yesterday and to-day, and can store from 800 to 1,000 tons in ten hours. An acre of ice eleven inches thick will furnish in round numbers, 1,000 tons of ice.

Sleighing.—The stages to and from Sierra Valley for several days past have descended from wheels to runners. Sleighing most of the distance between Truckee and the Valley is good. The warm sunshine of to-day, however, has considerably demoralized the snow, and stages will be obliged to return back to wheels soon unless there is a change in the weather.

In Operation.—Schaffer's mill in Martis valley is in operation again, in spite of the snow and cold weather. The flume which floats the lumber to Truckee, works well even in the winter time. At night the water is turned off so as to prevent it from freezing in the flume.

SAN BERNARDINO.

Guardian, Jan. 18: Nearly all the alfalfa seed harvested in this vicinity has been shipped to other markets, and now there is considerable demand for it at home.

Judge Wiseman while gathering cucumbers on his farm below town last week, found a ripe watermelon, untouched by frost.

A gentleman from San Gorgonio Pass reports fine rains in that vicinity. The grass is growing beautifully, and everything promises a prosperous seasou. Neither frost nor heavy wiuds have occurred this wiuter.

Duriug the recent fine weather, farm work of all kinds received a great impetus, the grouud being in excellent state for plowing.

As yet no snow has been visible on the mill mountaius north of town, though the more elevated ranges in sight have been covered.

It is currently reported that several hundred horses have been collected in the mountaius back of Cajon Pass, near Rock creek, where they are supposed to be herded by a band of thieves, who await a favorable opportunity for driving them out of the couutry.

SAN DIEGO.

Union, Jan. 18: A Domestioated Curlew.—On the premises of a friend there is to be seeu a partially domesticated curlew, which has made the place its home for several months past. It feeds and associates with the chickens as if it were one of them. When it first imposed itself on their company the hens were shy and fled, while the roosters, on the other hand, were disposed to be combative, and endeavored to drive it away; but the curlew stuck to its adopted home with singular tenacity. The hens have completely overcome their timidity and the roosters no longer manifest an unfriendly spirit toward the intruder. The bird goes and comes whenever it chooses, spending hours at a time among its new companions. It is always on hand when feeding time comes around, and succeeds in securing its share of the grain dealt out. It is uow regarded as one of the family domesticated fowls, and has much attention paid to it.

SANTA BARBARA.

Index, Jan. 16: Plucky Little Tree.—On looking over the place of Mr. D. B. Clark, in Montecito, not long since, we were shown, just in time to prevent crushing it with our foot, a dwarf pear tree thirteen inches high, looking as proud and erect as if its dimensions were Brobdiguagian. It is in its third year from a quince cutting, and bore ou its tiny branches five good sized, well developed pears, all of which fully ripened and were picked at New Years. Mr. Clark has a peach tree in blossom, grown from the seed since April last, and on another tree is a peach ripened in seventeen months from the plantiug of the seed. The tree was budded, cut to the grouud, and transplanted in the meantime. It is perhaps well to add for readers abroad that these results have been accomplished without irrigation.

SAN MATEO.

Gazette, Jan. 25: On the 7th day of this month the Almond trees iu the neighborhood of Belmont were in bloom. The present season opens at least one month earlier than previous ones.

Climate and Crop Prospects. — Redwood City, January 14th, 1873—The sky is clear and cloudless, tho air warm and vernal. The fortunate denizens of this favored town are promenading along its shady streets, or disporting themselves with outdoor amusements in the green groves and fields. The hills have already clad themselves in soft velvet, and the trees are beginning to think about their spring apparel. Here and there through the valley, patches of rich, dark brown show that the labors of the husbandman have already begun, while in other places, a tinge of delicate green denotes the promise of abundant harvest for their rich reward. This has the finest climate of any other locality in the State. The inhabitants, appreciating their heavenly blessing, are active in creating more earthly comfort.

SANTA CLARA.

Argus, Jan. 25: San Jose Woolen Mills.—There are at present employed at this factory eighty-five hands; twenty-four men, three young ladies, five boys, and fifty-three Chinamen. The boys have light but steady work, and the girls pick the knots and specks from the white blaukets, with a burlingiron—very easy but confining work. There are three sets of cards in operation, and eight spinning jacks—three of which are self operating—and twenty-two looms. Thirty-five hundred pouuds of yarn are used per week, two hundred and seventy-five pairs of blankets are made, three thousand yards of flannel aud from fifteen to twenty-five hundred yards of various kinds of cloth for men's clothing woven, thus making about twenty thousand dollars' worth of goods finished up per mouth, for wholesale trade.

Mercury, Jan. 23: Tomatoes in January.—Ripe tomatoes, fresh from the vines, the middle of January, is something our Minnesota visitors don't often find at home. And yet, in the warm belt of the hills adjacent to San José, they cau be found at this seasou in greater perfection than we have ever seen them in the East. Mr. Tyler Beach, last week, showed our reporter a quantity of tomatoes, large and fully ripe, which were growu uear Los Gatos, in the open air, the frost not being sufficient to injure them.

SOLANO.

Chronicle, Jan. 25: A Large Planting.—The Sugar Beet Company, of Sacramento, has leased four hundred acres of land from Colonel J. P. Jackson, adjoining Davisville, and have planted it with sugar beets. The beets when grown will be forwarded to Sacramento by rail, and then made into sugar at the compauy's mills. This is iu addition to eight hundred acres planted in the immediate vicinity of their sugarie.

Independent, Jan. 25: Asiatic Quail.—Messrs. Liddlo & Keading, of San Francisco, have received a lot of fifty Asiatic quail by the last steamer which are to be turned loose on the farm of Milliard & Shafter, in Marin county, aud on the property of Mr. Thompson in this county, that they may propagate and become domesticated in Califoruia. The quail is about the size of the California meadow lark, and is not unlike that bird iu color. The back is feathered like the English snipe, and the throat and breast resemble the European thrush. The bird is said to be able to endure climate changes, and is very game, strong on the wing, and affording good sport to the disciples of the trigger.

SONOMA.

Argus, Jan. 25: Alfalfa.—H. Wilsey, who has a ranch near this city, left at our office on Saturday a specimen of alfalfa of this season's growth, which is fully twelve inches in length. Mr. Wilsey sowed a field with alfalfa on the 14th of March last, from which he last year harvested two and one-half tons per acre. He states that the ground is at present covered with a luxuriant growth.

TUOLUMNE.

Democrat, Jan. 25: Premiums on Tuolumne Grapes.—At a meeting of the California Vine Growers' and Wine and Brandy Manufacturers' Association, held at Sacramento on Monday, there was awarded to James Goodwin, for best three varieties of table grapes—Muscat of Alexandria, Flaming Tokay and Black Spanish a premium of $15. To Ezra Dane, for best two varieties of table grapes—White Muscat of Alexandria and Flaming Tokay a premium of $10.

An Old Fashioned California Slug Found. While harrowing two weeks ago to-day, in Rose's field at Jamestown, P. Norton, picked up what was known in old times as a "slug," an eight-square piece coined in 1852, which passed in those days for fifty dollars. The finder was offered fifty-six dollars for the slug. So many were anxious to get it, that all might have a chance it was put up in a raffle. E. R. Galvin had the pleasure of securing the mememto of past days, that was in use and preceded the coinage of the twenty dollar piece.

SUTTER.

Banner, Jan. 25: Good Basis.—We are glad to learn that our Farmers' Club is at last in good working order, and established on a firm basis. The last meeting was well attended, and a lively interest seemed to be manifested. The Club now numbers about forty members.

Crops.—Our trip to the country found the crops doing well. Volunteer and summer fallow look finely, and farmers were busily engaged in plowing and sowing. We are at least one month ahead of last season, and the indications could not be better for a larger yield of grain next year than ever was harvested iu the county. Grass in the Buttes is from three to five inches long, and the stock there is doing well. There are some of the finest locations in the Buttes for vineyards in the State, and when our county becomes more thickly settled, they will no doubt be taken advantage of. The soil is deep, and rich and would if properly cultivated, produce an immense amouut of grapes.

TULARE.

Delta, Jan. 23: Flattering.—Grain of early growing on the west side of the great San Joaquin Valley is already six inches high aud coming forward with the promise of yielding a most abundant crop. A much larger area of land has been seeded this year than last. In other parts of the State there are similar cheerful indications for a prosperous harvest. A very moderate supply of rain additional to what has fallen, will serve in most of the grain-producing counties.

Our Old Oaks.—A great many of our neighbors are trimming away the old trees round their dwellings. They do not like to cut them down, but on account of the dense and widespread shade, and the litter they occasion in summer, it is often desirable to curtail their proportions.

Tree Planting.—Farmers and others having suitable grounds for orcharding are putting out great numbers of fruit trees and many of the town people are ornamenting their homesteads with evergreens. Trees are offered much cheaper than ever before in this market and of better quality, as they come up by railroad from Stockton, Modesto, etc., in as many days as it used to take weeks before. It is to be regretted, we think, that so little attention is paid to cultivating the more choice and profitable fruits, such as white fig, almond, orange, lemon and walnut. Ere long, our farmars will realize the fact that apples, pears and peaches are overdone. Apples, especially in the valley, are not adapted to the climate. Another general fault, common with those who have hitherto plauted orchards in this valley, is the want of space between trees, resulting in poor and uusalable fruit. Many useful hints on the subject of orchards and the most desirable varieties of fruit, are given in the Rural Press, a paper which no good farmer will long be without.

Times, Jan. 18: Grain Sown.—Probably one-fourth more land will be sown in this county this season than ever before. The weather is still promising, and farmers aro unusually hopeful. If it were not for the extortionate rates of freight charged by the railroad company, this would be the best country in the world for agriculture. As it is, the substance of the whole land is eateu out by the sharks who have fastened their cruel teeth in the vitals of the people.

Our Climate.—There are really but two seasons hore—summer and spring. There is no autumn and no winter. The dry season is our summer when vegetation of all kinds reaches its fullest development aud the land is filled with pleuty. Spring commences with tho first rains when all nature quickens into a newness of life, a carpet of green o'erspreads the earth, plants germinato and grow, trees put forth buds and blossoms, flowers bloom everywhere, sunshine alternates with showers, birds sing merily, butterflies and a thousand bright-winged iusects appear and all is life and joy. Our climate for health and enjoyment is unsurpassed.

VENTURA.

Signal, Jan. 18: Strawberries.—Mr. and Mrs. J. D. Egbert will accept our thanks for a basket of delicious strawberries, some of which measured, 3⅛ inches in circumference. Good for January !

Thermometer.— The average of the thermometer here from the 3d to the 10th, inclusive, observations taken at sunrise, noon and sunset, was as follows: Morning average 52¼°; noon, 65½°; sunset, 58¼°; daily, 58½.

Steamships are becoming as thick as fleas in the Santa Barbara Channel. Nearly every day, from one to three may be seen steaming into or by our harbor, making the scene interestingly lively and suggesting a rapidly growing commerce on our coast. Two years ago, an ocean steamer was a rare sight.

YUBA.

Appeal, Jan. 22: Valuable Hen.—All have heard of the killing of the goose that laid the golden eggs, and we have to report the death of a hen that might have been very profitable to to the owner, Mrs. Charles Smith, of the Stanfield Hill House, on the Downieville road, who killed a hen the other day, and on preparing it for the pot, found in its craw twenty-seven small pieces of pure gold. The gold was brought down by Johnny Sharp and left with Dau McCarty to be weighed, and by J. P. Scott's scales it was ascertained to be worth one dollar—the lot weighed twenty-five grains. We should judge there must be rich diggings wherever this hen has been in the habit of wandering. The gold can be seen at McCarty's saloon by the credulous or incredulous.

About Orange Trees.—The orange crop in this city has been larger this season than on any former year. The largest tree, which is now about the size of an ordinary apple tree, and owned by G. R. Nightingill, has produced between six and seven hundred very fine sized and finely flavored oranges. There may be a dozen more bearing trees scattered about the city and adorning the lots of private residences, all of which have produced more fruit this than last year. But our orange tree growers have learned by experience one importaut fact—that the natural tree produces the best fruit—the sweetest and thinnest skinned orange. A few years ago budding was all the rage. Everybody must buy budded trees—and pay more for them, too.

COLORADO.

Tribune, Jan. 22: Our Farmers' Club.—For two years has our Farmers' Club held regular sessions during the months not devoted to active out-door work, and, for the most part all its meetings have been interesting. Being the first Farmers' Club organized in Colorado, it now has followers in almost every thickly settled farm region in the Territory, and it is not too much to say that we are favorably known both at home and abroad. The reports made in the Greeley *Tribune* have been full and our Eastern subscribers read them among the first articles, because they give information on our rural industries, attainable from no other source. These reports will still be made, and as the farmers gather experience, what they impart will have constantly increasing value.

A Cheyenne dog in following the example of white men who join the Indians, by joining a band of wolves, came to grief. He did not like things in Cheyenne; there were too many dogs, and provisions were scarce, so he launched out, crossed over to Meadow Springs, thence to Box Elder where he came on a company of grey wolves and united with them. For several months they had a good time, but the herders getting on their track they crossed the Cache la Poudre, and lived on calves. At last they got so strong they surrounded a fat cow, bringing her down by hamstringing. But the herder drove them away while they were still hungry. He put a large quantity of strychnine in the carcass, and the next day there were thirty dead wolves and a dog. Alas, poor Tray!

OREGON.

State Journal, Jan. 18: The Weather.—As we send quite a number of copies of the *Journal*, to subscribers on the Atlantic side, we desire to give each week a "weather item" for their benefit. Our home readers of course know as much about the weather as we do, but our object is to enlighten the "outside world." Having kept no record, we can only speak from occasional observation, but it is safe to say that the mercury has not been lower this winter, at this place, than ten degrees below the freezing point, and never higher than ten degrees above the temperate point. The mean temperature so far would perhaps range between forty-five and fifty. How will this do for high and low? Not a flake of snow has fallen at this point so far, that we remember of.

The *Pantagraph* says: "Mr. Dan Raymond, of the Cow Creek Valley, Douglas county, has almost 200 head of fine Cotswold sheep; 11 head of Cashmere goats; several head of Percheron horses, and quite a stock of Berkshire and Chester White hogs. The farmers of that portion of Oregon are taking much pains to improve their stock as well as their farms."

Crop Prospects.—We are informed by some of the farmers that the prospects for a good crop of grain never were better than at present. The early sown grain got a good start in the fall and has not been injured by cold weather. There has been enough rain to thoroughly moisten the ground, and if we have no severe freezing, and there should continue a sufficiency of rain to keep the ground moist during the spring, the yield must be a heavy one.

University College, San Francisco.

This well-known institution, one of whose buildings is represented in the accompanying cut, is located on the corner of Geary and Stockton streets, in this city. The College was organized in 1859, in the basement of the old Calvary Church, which stood on Bush street, opposite the Cosmopolitan Hotel. It soon outgrew its accommodations there, and the present site on the corner of Geary and Stockton streets was secured. That part of the city was then in the "sand-hills," and the lot on which the College stands had a sand-hill on it nearly as high as the present college building.

The institution was for a long time known as the City College, and to many of the old patrons this is still the most familiar designation. In 1863, the charter of the institution was enlarged and its name changed to that of University College, probably after the example of University College of London. Its prosperity, from the first, has been one of the pleasant features of its history. It has not been without the trials and temporary reverses incident to similar institutions everywhere; but it has shown a vitality and vigor which entitles it to rank among the permanent institutions of the city and of the country. It possesses accommodations for at least five hundred students; is furnished with a laboratory and valuable philosophical and chemical apparatus, and an excellent telescope. It has a spacious yard in the rear, and an open-air gymnasium for the exercise of students. There is no place in the city, or anywhere else on the Coast, where the mental, moral and physical welfare of boys and young men can be better promoted.



UNIVERSITY COLLEGE, SAN FRANCISCO.

Under the Presidency of Rev. W. Alexander, aided by his efficient colleagues, the institution is rapidly attaining a high degree of prosperity in all its departments. It has extended its facilities so as to be in fact a University. It is the design of its Boards, both of Direction and Instruction, to make it in all respects a first-class institution. Its plans are broad and comprehensive, providing for the entire education of youth, from the primary school up to the professional schools for Commerce, Medicine and Law. These various departments have been organized, and are now in successful operation.

The Pacific Medical College constitutes the Medical Department of the University. All information relative thereto will be furnished by Dr. Henry Gibbons, Jr., Dean of the Medical Faculty.

The City College—the Library and Scientific Department, is under the more immediate supervision of the President, Prof. Alexander. He is aided by Professors Kirkland, Robinson, Price and others of experience and high reputation. It is open to students of all grades, from boys of eight or ten years of age to young men in College.

The Pacific Business College constitutes the Commercial Department, to which the whole east end of the building is devoted. This is the oldest and best Commercial School on the Coast, and the only one in which a thorough knowledge of business is taught. Business Colleges were for a long time regarded as a humbug; and it must be confessed that the prejudice was not without foundation. At first most of them were, and many of them still are, exceedingly superficial. Business-men found that young men who had passed through those Colleges had nearly everything yet to learn, while they sometimes had much to unlearn. Still, a want was felt for some means by which young men could be fitted for business pursuits, as they were for the so-called learned professions. By degrees the course of study was enlarged and made more practical and thorough, until now business-men can find in the halls of University College young men fitted for the store, the mill, the bank, the railroad or telegraph office, or any other department of practical business.

Among the men who are interested, as Trustees or patrons of this enterprise, and who recognize the importance of providing for the training of the future business men, merchants, and bankers of the country, no less than of the lawyers, doctors and clergymen, may be named, Hon. Thos. H. Selby, President of the Board of Trustees and Ex-Mayor of the city; Hon. H. P. Coon, an Ex-Mayor; Hon. H. H. Haight, Ex-Governor of the State; J. D. Thornton, Esq., of the law firm of Thornton & Williams; Hon. Milton S. Latham, of London and San Francisco Bank; D. O. Mills, Esq., and W. C. Ralston, Esq., of the Bank of California; Rev. W. A. Scott, D. D. LL D., of St. John's Church; Rev. John Hemphill, of Calvary Church; Rev. T. M. Cunningham, D. D., of the new Central Church Tabernacle; N. G. Kittle, Esq., of the firm of Kittle & Co., shipping and commission merchants; A. Hemme, of Hemme & Rhein, Montgomery street; J. O. Rountree, Esq., of Rountreee & McMullin, wholesale grocers, Front street; Louis Sachs, of L. & M. Sachs, importers, etc., and many other prominent men in the State and county.

Young men will here find a place where they may be sure that they will receive a proper business training. Such an institution is of great benefit to young men desirous of gaining speedy admission to business circles and promotion to responsible and lucrative positions; and the business men of San Francisco show that they feel an interest in the welfare of the young men of the Pacific Coast by affording them facilities for acquiring a knowledge of the customs and laws of trade and commerce under their own immediate sanction.

This Department of the College enjoys the personal supervision of Prof. M. K. Lauden, who has had a large and successful experience in the management of business colleges, and as an expert accountant probably has no superior in the city. None but the most experienced and thorough instructors are employed, and young men who wish to acquire a thorough knowledge of business, will always find it for their interest to take a full course in the Pacific Business College. So little do most young men know of practical affairs who have even graduated from almost any of the colleges of the land, that they often find it necessary to take the business course afterwards.

For the convenience of those young men in the city who find it necessary to earn their own living, the college is open in the evening from seven till nine o'clock. Many young men complete the course in a few months by devoting their evenings to study. Boys who are too young for business, or who need some further instruction in English studies, or Modern Languages, can enter the Academic Department first and then take the business course when they are properly prepared for it. This is a practical age and country, and the place for obtaining a good practical education is in the Business Department of University College.

The College is without doubt one of the leading educational institutions of the city, and is deserving of the generous patronage it receives.

Its Faculty and Trustees embrace in their numbers some of the ablest men in California; and its patrons include among them many of our most prominent and wealthy citizens. Prof. Alexander, the President, will be pleased to give any information that may be desired in relation to any of the departments. Persons wishing further information about the Business College can apply to the Superintendent, Prof. M. K. Lauden.

Planting Vines.

EDITORS PRESS:—Probably there are many persons about to plant vineyards, who have no practical ideas about it; with your permission I will give your readers the benefit of my experience.

To prepare the ground, plow it twice, harrow and cross-harrow, and roll each time. To square the ground, make a right angle by taking three strips of boards, one by two inches, and respectively 6x2, 8 feet 2, and 10 feet 2 inches long, fasten the ends of the two short pieces together at right angles with a screw; bore through the center of both with a small bit and drive a double ten-penny nail from the under side through the hole; measure exactly 6 feet from the nail along one side of the angle, and exactly 8 feet from the nail along the other side, and at these points bore another small hole, and through these, drive nails of the same size from the under side. Now bore a hole in each end of the third strip, exactly 10 feet apart, and place it on the nails in the outer ends of the other two, and you have a perfect square, the nails answering to sight by each way; survey around the plat, setting up a stake at each corner. The next implement is a chain, and the best material is homogenous wire kept by some house near 415 Battery street, San Francisco, and used for baling hay. Have a tinsmith solder on it drops of solder the distance which you wish to set your vines apart, until you have twenty-six drops or marks; have a small ring at each end of the chain, and a half-inch iron pin 15 inches long to fasten the chain to the ground; now measure around the plat to prove whether you surveyed correctly or not; then being provided with a plastering lath, with one end sharpened and the other dipped in whitewash, measure, say from your southeast corner north, two lengths of your chain, setting up firmly a lath at each mark, except the first and last, at which stick a peg of 8 inches; measure from the same corner running on your line west putting down a peg at every mark on your chain, and at every length of your chain (or twenty-sixth) row running parallel with this one, measure and set pegs as before; measure from your southwest corner two lengths of your chain setting up laths at each mark on chain, then by sighting, set up another row of laths in the center of your plat (if a large one) in line with those at each end, and another row of laths in line with these about fifty yards east of your first row set up; now start with a steady team from your west line and draw a furrow in each line of lath stakes; draw your plow back again in the same furrow, opening your checks so as to let the horses walk one on each side of it; have another team to now go through and back again in this furrow with a subsoil plow, the horses walking on each side of it. As soon as twenty-four furrows (one block) are thus laid out, commence planting, by stretching the chain across the furrows, keeping the marks on each end of the chain at the upper or front side of the pegs in each avenue, fasten by putting your pin into the ground through the rings. With a boy to drop the cuttings and four men to stick them down in the furrow at each mark on the chain, packing the earth around them with their feet, from six to eight thousand cuttings can be planted daily. Fill up the furrow by throwing the earth to the cuttings thus set, with a one horse plow, double shovel or cultivator, thus doing all the hard work with horses speedily and in the best possible manner. The second block can be prepared while the first is being planted. Two chains can be worked at the same time by commencing at each end of the block. If the cuttings are not dry, cut the butts off squarely close to a bud and plant, but if dry, should be soaked in water two days. Rooted vines should be cut back to two buds, and the roots to half or three-quarters of an inch in length. Anything planted at close distances, can be done in this manner, such as currants, blackberries and mulberry plantations. By using the chain, orchards can be set with the greatest precision. Roll up the chain on a drum about six inches in diameter by twelve in length to prevent snarls or kinks getting into it. H. W. C.

Oakville, Jan. 22d, 1873.

The above excellent suggestions and plan of setting trees or vines accurately, in rows at right angles, was accompanied by a diagram showing the application of the plan, but we think the word description sufficiently plain for any one possessed of an eye or an idea.

Professor Agassiz on the Negro.

In a recent lecture Agassiz remarked: "I have pointed out over a hundred specific differences between the bonal and nervous systems of the white man and the negro. Indeed, their frames are alike in no particular. There is no bone in the negro's body which is relatively the same shape, size, articulation, or chemically of the same composition as that of the white man. The negro's bones contain a far greater proportion of calcereous salts than those of the white man. Even the negro's blood is chemically a very different fluid from that which courses in the veins of the white man. The whole physical organization of the negro differs quite as much from the white man's as it does from that of the chimpanzee—that is in his bones, muscles, nerves and fibres, the chimpanzee has not much farther to progress to become a white man. This fact science inexorably demonstrates.

"Climate has no more to do with the difference between the white man and the negro than it has with that between the negro and the chimpanzee, or it has between the horse and the ass, or the eagle and the owl. Each is a distinct and separate creation. The negro and the white man were created as specifically different as the owl and the eagle. They were designed to fill different places in the system of nature. The negro is no more a negro by accident or misfortune than the owl is the kind of a bird he is by accident or misfortune. The negro is no more the white man's brother than the owl is the sister of the eagle, or the ass the brother of the horse. How stupendous, and yet how simple, is the doctrine that the Almighty maker of the universe has created different species of men, just as he has different species of the lower animals, to fill different places and offices in the grand machinery of nature."

A Creamy Question.

EDS. PACIFIC RURAL:—Having taken your goodly paper nearly a year please give me more of the same, and find four dollars for which give me credit. I would like to know through your paper, if a cow gives any richer milk, that is, more cream when old than when young. Of course she gives more milk at 9 years than at two or three but is it richer with cream.

G. BENEDICT.

Helena, M. T.

In the Agricultural Commissioner's Report for 1870, page 316, is a statement of Mr. Lewis, Herkimer county N. Y. in which he says that he has made many experiments on his own farm to test the value of the milk of cows at different ages for the manufacture of butter and cheese. He finds that the milk of cows from six to ten years old, will produce from 40 to 60 per cent. more cream than the same quantity of milk of their offspring two years old, the animals being fed and treated alike. It is an interesting query however, and we would like to obtain the result of other experiments in regard to it.

Useful Information.

New Mode of Manufacturing Lamp-black.

A few years ago, a party of gentlemen started what they intended to be an oil well, near Cumberland, Md. They soon, however, were disappointed in their expectation, for instead of striking oil, they came upon a gas chamber. A short time afterwards, the emitting gas was accidentally set on fire, and continued to burn for a period of two years. About a year ago, according to the *Manufacturer and Builder*, Mr. Haworth, a gentleman from Boston, having heard of the burning well, went to Cumberland, tested the quality of the gas, and was satisfied that he could put into operatian a scheme or plan of his own for the manufacture of carbon (lamp-black) from the gas. Accordingly, the well was leased or purchased, and a patent obtained for the manufacture, according to the plan of Mr. Haworth. A building was constructed, and the manufacture commenced about six months ago.

There are now in operation six hundred and sixty burners, each burner consuming eight cubic feet per hour. The gas is allowed to burn against soapstone plates, on which the carbon is deposited in the form of soot. By a very neat mechanical arrangement, the soot is scraped off and deposited in large tin boxes about three feet long, and a foot and a half wide, and a foot and a half deep; scrapers are passed along the soapstone plates every twenty minutes, and the boxes are filled on their fourth passage. A large building is now in course of construction, twice the size of the present one, and will have in use thirteen hundred and twenty-eight feet gas burners. The present composition of gas amounts to about one-twelfth of the whole quantity escaping from the well. When the new building is completed and the burners put in operation, the total consumption of gas, by the burners of both buildings, will be one-fourth of the whole.

The carbon is used for the manufacture of ink, and these works, we believe, are the only ones of the kind in the country; and as far as the knowledge of the owners extend, they are the only ones of the kind in the world.

As we have struck burning gas wells in this State, would it not be well for the owners thereof to consider the feasibility of utilizing them in the manner above described?

Laughing Plant.—A singular vegetable phenomenon has been discovered during recent explorations in Arabia. It is called the laughing plant, from the effect which is produced by the seeds. When they are pulverized and then eaten in small quantities, the person eating them will soon begin to laugh loudly, then to sing, dance, and do all manner of absurd things. This lasts for about an hour, after which he goes to sleep, and having slept another hour wakes up utterly unconscious of what has occurred. It has been suggested that this plant might be made a substitute for alcohol, and that it would have the advantage of being cheaper. But it is scarcely probable that the Arabian plant could in fact be made popular in that capacity, for it does not appear that it inspires the person who partakes of it with a desire to whip his wife, murder his mother, or to indulge in any of the little pleasantries that the alcohol of the period moves one to perpetrate.

Rapidity of Muscular Contraction.—A dragon-fly, balanced on its wings at the side of a car speeding its way over the rails, at the rate of forty miles an hour, appears to be almost motionless, but to keep up with the car, its wings must vibrate many thousand times a second. The eye cannot detect their up and down action, so exceedingly rapid are the contractions and relaxations of the muscles acting upon them. All at once they dart off at a right angle so quickly that the retina cannot have an impression remaining long enough to retrace their course. Therefore, those same muscles, too small to be seen but by powerful microscopic assistance, must be urged to still more rapid action. Such intense activity far exceeds the vibration of musical chords, and therefore exceedingly perplexes entomologists, because the nervous system of insects is so extremely minute. The question is: How much power is generated for keeping a dragon-hy's wings in uninterrupted motion for many hours in succession, without apparent fatigue?

Power of the Right Hand.—In a paper read before the Chirurgical Society of London, Dr. Ogle states it as his belief that the superiority of the right hand, in works requiring strength and skill, is not due merely to custom and usage. His reasons for this opinion are that the superior power of the right side is not confined the the arm, but extends to the leg, and that it commences in the arm before use or education begins, and continues in spite of all efforts to resist or divert it. This superiority has a resemblance to some malformation, inasmuch as it is hereditary and is met with more frequently in the male sex, not only in men, but in apes and parrots. The author further asserts that the left side of a right-handed man is greater than the right, and *vice versa*, and he suggests that this greater development of the left side is due to the greater quantity of blood which it receives.

Oiling the Harness.

In these times of poor leather, we should clean and oil the harness at least once a year, to keep it in good condition, and to reduce the wear and tear as much as possible. Don't let the job out to the harness maker, but some of these stormy days when the harness is not in use, just take it into the work-shop and commence operations. Take the harness all apart, and scrape off all scurf, hairs and dirt, and wash the leather clean with soap and hot water. Then heat two or three quarts of neatsfoot oil in a long shallow pan, and draw each piece of leather through it slowly bending the leather backward and forward, and rubbing the oil in with a cloth or a sponge. Hang near the fire to dry, and repeat the process until the leather is saturated with oil; mix a little lampblack with clean tallow, and with a cloth rub it into the leather while warm, until the pores are filled and the surface becomes smooth and glossy. If a harness is oiled in this way it is never gummy, and will therefore keep clean a long time. Sometimes linseed oil or adulterated oils are used, but they dry on the leather and make it gummy, dirt and hairs stick to it and the harness gets so filthy as to soil every thing it touches. After the harness has had a good oiling, an occasionl rubbing with tallow and lampblack will keep the leather tough and pliable, and prevent it from crackiug.—*Country Gent.*

Painted Zinc.—A difficulty is often experienced in causing oil colors to adhere to sheet zinc. Boettger recommends the employment of a mordant, so to speak, of the following composition: one part of chloride of copper, one of nitrate of copper, and one of salammoniac are to be dissolved in sixty-four parts of water; to which solution is to be added one part of commercial hydrochloric acid. The sheets of zinc are to be brushed over with this liquid, which gives them a deep black color; in the course of from twelve to twenty-four hours they become dry, and to their now dirty gray surface a coat of any oil color will firmly adhere. Some sheets of zinc prepared in this way and afterwards painted have been found to entirely withstand all the atmospheric changes of winter and summer.

Perfume for the Handkerchief.—A delicious perfume for handkerchiefs, etc., can be made after the following recipe: Procure half a pound of orris powdered; pour over it one pint of rectified spirits; let them stand in a bottle tightly corked for one fortnight; then filter the spirits through blotting paper, and add half a drachm, otto of lavender, one drachm of otto of bergamot, and half an ounce of otto of neroli. Let it stand for twenty-four hours, and then filter through blotting paper to make it very clear. A paper filter is esily made by taking a square piece of blotting paper that will just lay over a pint or quart bowl, fold it twice and from corner to corner. Now open it, and you can pour the liquid in very easily, using a small pitcher to drain it into.

Antimony an Explosive Metal.—If a piece of copper foil be attached to the negative pole of a galvanic battery, and a piece of platinum foil to the positive pole, and the two immersed in a hydrochloric acid solution of antimony, the antimony will be precipitated as a metallic mirror on the surface of the copper. After removing it from the liquid and carefully washing with distilled water, the brittle antimony can be removed by bending the copper back and forth. Antimony thus obtained will explode upon being rubbed in a mortar or struck with a hammer, light and heat as well as detonation being produced by the explosion. The reason of this extraordinary action of only one metal is due to the rapidity with which it returns from the amorphous form to the crystaline.

Does Frost Affect the Strength of Iron?—Notwithstanding the generally expressed opinion, and the apparent showing of careful experiments to the contrary of the above query, news of serious railroad accidents, from broken rails, has been pouring in from all parts of the country, since winter frosts became severe. Some of these accidents are appalling in extent and details, and it would seem that it was time, if such accidents do not proceed from the deteriorating action of frost, to consider some radical change in the structure of rails or track, that would effectually prevent this class of accidents.

Remedies for Boiler Incrustation are almost innumerable. Among those in common use and lately recommended are soda ash, chloride of barium, carbonate of ammonia, chloride of ammonia, starch, potatoes, molasses, tannin or extract of oak bark, dye-wood extracts, bran, chiccory, fats and tar. Mahogony saw-dust and clay are also used, but are objected to as producing injurious affects in the cylinder; and in regard to nearly all the substances above enumerated there is a difference of opinion among practical engineers.

Benzole and Benzine.—Pitch is readily dissoled by benzole, while it is scarcely at all dissolved by benzine. This, therefore, is the means of distiuguishing the one from the other.

To Prevent Rust. — It is said that equal parts of carbolic acid and olive oil, smeared over the surface of the instruments, are an unfailing preventive of rust in any climate.

Good Health.

Lifting--Its Rationale.

Prof. Welch, of Yale College, is a firm advocate of the benefits of lifting, from a strengthening point of view. He thus sums up its advantages, in the following language:

Lifting is a system of harmonious and simultaneous exercise of the whole body. Every muscle is brought into use at once, and each in proportion to its relative strength. And so connected are the vital organs with the muscular tissues of the body, that when all the muscles simultaneously and harmoniously act, the organs themselves receive their appropriate amount of exercise. So distributed in this effort that there is no danger of injurious strain or rupture. It strengthens the weak organs and expels disease, by a gradual co-operative exercise of the whole body. The strength of the whole is augmented and equallized, the weak parts are built up, disease is expelled, and the individual becomes uniformly strong, and, consequently, healthy. It develops power chiefly at the vital centers. All the voluntary and respiratory muscles are brought into harmonious play, expanding the chest, augmenting the breathing capacity, aerating the blood, equallizing the circulation, warming the extremities, and thus vitalizing every part; and by determining action and circulation to the whole surface, increases the relative amount of blood in the extreme capillary vessels, thereby removing internal congestion wherever located, and acceleratiug the nutrition of every organ. When these reasons are fully understood, the fact that many persons have, by the simple process of lifting, more than doubled their strength in three months, will not be surprising.

Something About Teeth.

Why, asks *Chambers' Journal*, do some people's teeth come out more readily than others? The reasons for this are probably many. About the middle of last century Peter Kalm, a Swede, visited America, and wrote sensibly about what he saw. He observed a frequent loss of teeth among settlers from Europe, especially women. After discussing and rejecting many modes of explanation, he attributed it to hot tea and other hot beverages; and came to a general conclusion that "hot feeders lose their teeth more rapidly than cold feeders." Mr. Catlin, who some years ago had an interesting exhibition of Indian scenery, dresses, weapons, etc., noticed that North American Indians have better teeth than the whites. He accounts for the difference in this strange way—that the reds keep the mouth shut, whereas the whites keep it open. The teeth, he says, require moisture to keep their surface in good working order; when the mouth is open, the mucous membrane has a tendency to dry up, the teeth lose their needed supply of moisture, and thence come discoloration, toothache, ticdouloureux, decay, looseness, and eventual loss of teeth. Mr. Catlin scolds the human race generally for being less sensible than the brutes in this respect, and the white race especially in comparison with the red. We keep our mouths open far to much; the Indian warrior sleep, hunts and smiles with his mouth shut, and respires through the nostrils. Among the virtues attributed by him to closed lips, one is excellent —when you are angry, keep your mouth shut.

Health Laconics.

Sunshine.—Do not exclude the sunshine to save the carpet. Sunlight is essential to health. Human beings are as dependent upon light as are plants and animals. Children reared in shady rooms have weak eyes, and are as frail and scrofulous as potato vines in a cellar.

Cold Feet.—Never go to bed with cold feet without applying a hot brick, hot bag of saud, a jug of hot water, or some warming material. Cold feet are often caused by tight shoes, stockings, or garters. When the feet are habitually cold, a smart walk or run before retiring, will often make them comfortable for the night.

Dyspepsia.—A majority of cases are owing to errors in diet and sedentary habits. Exercise half an hour each morning before breakfast. Eat plentifully of fruit and Graham bread. Avoid greasy dishes, fresh fermented bread, old cheese, pickles and candies.

Palpitation.—This is caused by thick blood, or obstruction in the excretory organs. Bathe once a week at least, and keep the bowels free.

Impurity of the Blood.—Never think of making the blood better by putting drugs or poisons into it. Pure water, pure air and pure food are nature's purifiers. Take of these first what the system can use and no more, and your blood will take care of itself—and of you too.

Corns and Bunions.—Have your boots and shoes made to fit your feet, instead of trying to shape your feet to the boots and shoes. Then soak the excrescences in warm water occasionally, cut off the softened surface, and in due time they will be seen no more forever.

Sleep.—Go to bed with warm feet, an empty stomach and unexcited brain. Be sure and keep a clear conscience. Then shall your sleep be dreamless and your days long in the land.

Foolish Habits.

Dr. Hall, in his *Journal of Health*, enumerates several practices of the carless public, which are sometimes as dangerous as they are foolish:

Walkiug along the streets with the point of an umbrella sticking out behind, under the arm or over the shoulder. By suddenly stopping to speak to a friend, or other cause, a person walking in the rear had his brain penetrated through the eye, in one of our streets, and died in a few days.

To carry a long pencil in vest or outside coat-pocket. Not long since, a clerk in New York fell, and the long cedar pencil so pierced an important artery that it had to be cut down from the top of the shoulder to prevent his bleeding to death, with a three month's illness.

To take exercise, or walk for the health, when every step is a drag, and instinct urges repose.

To guzzle down a glass of cold water, on getting up in the morning, without any feeling of thirst, under the impression of the health-giving nature of its washing-out qualities.

To sit down to a table and "force" yourself to eat, when there is not only no appetite, but a decided aversion to food.

To take a glass of soda, or toddy, or sangaree, or mint-drops, on a summer day, under the belief that it is safer and better than a glass of cold water.

To persuade yourself that you are destroying one unpleasant odor by introducing a stronger one; that is, trying to sweeten your unwashed garments and person by enveloping yourself in the fumes of musk, *eau de cologne*, or rose-water; the best perfume being a clean skin and well-washed clothing.

How Drinking Causes Apoplexy.

It is the essential nature of all wines and spirits to send an increased amount of blood to the brain. The first effect of taking a glass of wine or stronger form of alcohol, is to send the blood there faster than common, hence the circulation that gives the red face. It increases the activity of the brain, and it works faster, and so does the tongue. But as the blood goes to the brain faster than common, it returns faster, and no special harm results. But suppose a man keeps on driuking, the blood is sent to the brain so fast, in such large quantities, that in order to make room for it the arteries have to enlarge themselves; they increase in size, and in doing so they press against the more yielding flaccid veins which carry the blood out of the brain and thus diminish their size, their pores, the result being that the blood is not only carried to the arteries of the brain faster than is natural or healthful, but it is prevented from leaving it as fast as usual; hence, a double set of causes of death are in operation. Hence, a man may drink enough of brandy or other spirits in a few hours, or even minutes, to bring on a fatal attack of apoplexy. This is literally being dead drunk.—*Dr. Hall.*

How to Get Rid of Moles.—Ladies have a horror of those black eminences which sometimes appear on the face, called moles. Even homely men dislike them, but there they ordinarily remain as guides in giving a description of an applicant for a passport.

An exchange says a mole is a thickening of the epidermis, or outer skin, probably induced by an obstruction in the outward ends of a cluster of sweat-tubes. To be clear of them readily, run a fine needle through one of them from one side to the other.

Let an assistant take hold of both ends of the needle and pull so as to make a neck of clear skin at the base. It is neither painful nor difficult, and attended with hardly a tinge of blood. Next ligate that neck behind the out-dragged mole with a delicate, strong, waxed silk thread, that cuts off the circulation; clip away the unused thread and await the result. A slight local inflammation ensues, which is the gluing together the new surface of the stitched skin.

In a few days the old offence drops off, deprived of nutrition, leaving no scar. If a little reddish by the remains of a subduing inflammation, wash the spot occasionally with cold water. Proceed to the next, and the next, seriatim. Before aware of it, any mole-disfigured face may become as good as new.

What is Under the House?—One great fault in building houses in both city and country is to make them too low on the ground. There should be distance enough to allow a free circulation of air, say three feet, between the floor and the earth. All rubbish, shavings, etc., should be cleaned away before siding up, and a good ventilation should be kept open to insure dry, sweet air under the floors. Much sickness is caused to many families from low underpinning, and close, damp, stagnant air, carrying miasma into the lower rooms through the floors of dwellings. Many houses are built upon flat ground, and the earth thrown around the outside, making a sink under the house to hold water. This is wrong. It is much better to raise the ground under the house, and even gravel and cement before building. At any rate, ventilation under the house should be always attended to. We do not believe in cellers under the house in this climate, but whenever there is a celler it should be open, and always kept clean of decaying substances. Guard against the enemies to health that lurk under a house.—*Ex.*

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SAN FRANCISCO:

Saturday, Feb. 1, 1873.

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Send in the Names.

Friends who have been getting up clubs for the RURAL PRESS, are requested to send in the names as fast as paid, without waiting to complete the club. The lists should be completed as soon as possible.

COTTON AND CORN PLANTER.—We have received a number of illustrated circulars from the Industrial Plow Company, of St. Louis, Missonri, describing what is called a combined cotton and corn planter and cultivator, which that company introdnce to the pnblic as the greatest labor-saving implement ever invented for the Southern planter. The Planter is said to drill any large cereal, and thoroughly mix any kind of fertilizer with the seed and distribute both, with a regularity and precision only equalled by the most careful hand. The Cultivator, it is claimed, will bar off; scrape both sides of the ridge at one running; chop out, or bunch, and dirt the cotton, all at the same time. We will send a circular to any one desiring it.

JUTE SEED.—In our present issue is a letter from Hon. E. Casserly, on the culture of jute, in which mention is made of ten packages of seed forwarded to us. The seed came and we will distribnte it free to subscribers, who will please pay the postage in letter stamps, and please state the quantity they desire to experiment with. The seeds resemble that of the onion, in size and are pnt np in small cloth sacks of abont half a pound each.

SAN JOAQUIN VALLEY NARROW GAUGE ROAD.—Enough money has been paid in, according to the Stockton *Republican*, to organize the Stockton and Visalia Narrow Gauge Railroad Company and arrangements are now being made to incorporate it.

Irrigation in the San Joaquin Valley.

With every indication of sufficient rain to meet the wants of the husbandman for 1873 in California, still we find that our people are not unmindful of the great advantages to be derived from irrigation properly dispensed, in the vast valley of the San Joaquin.

The Trustees of the Kings River Canal and Irrigation Company, at a meeting held in this city last Tuesday, resolved to place before the public 75,000 shares of the capital stock of the company—three-fourths of all the stock. No one will be allowed to subscribe for more than 500 shares and new purchasers will be granted the same terms and advantages as the original subscribers. This company proposes to construct about three hundred miles of canal for irrigation and commercial purposes, forty miles of which are already built, and its waters are eagerly sought after by the inhabitants of the locality. The size of the canal is fifty feet wide and carrying six feet of water. They ask from the Federal Government a grant of two sections of the public land in the State for every mile of canal of this capacity where completed; said land to be represented by scrip, which may be treated in the same manner and to the same extent as the scrip known as the State University Scrip of the State of California.

It is only because our people have not generally been brought up to, or been made cognizant of the vast benefits accruing to a country from a judicious practice of irrigation, that they have not long since began and in some instances perfected extensive systems of irrigation in California. No country in the world possesses superior facilities, no country can be more strikingly benefitted.

It may seem to many like an experiment, but irrigation is no experiment; we are told that it was practised in Egypt before the pyramids were reared; and in China before Confucius wrote; it was brought to great perfection by the Aztecs of Mexico, while yet our ancestors in Europe were dressed in skins and furs and lived by the chase. It is simply scientific agricultnre and the only insurance against the uncertainties of the seasons and crops.

With a proper system of irrigation we are sure to reap where we sow, and not only this, but twice or three times a year; and there is no reason why the great San Joaquin valley, now to a great extent water barren and waste to all the purposes of a mixed agriculture may not be made as productive as the valley of the Nile. The climate is genial, the sun in summer or winter is all that can be wished, and it only needs irrigation to give it population, and the two making it the exhaustless grainery and semi-tropical fruitery of the world.

Beet Sugar in Australia.

"The colony of Victoria, Australia, has a beet-root sugar factory in successful operation. What is known as the diffusion process is preferred by the proprietors to the use of hydraulic presses recommended by European authorities."

Among the different processes in use in Europe for the extraction of beet juice for sugar making, the three following are found the most effective:

Hydranlic Pressure, Centrifugal Force and Diffusion.

The first of the three is the oldest and is the one most in use in all the earlier factories. The centrifugal was next tried, and many new factories adopted it; but it was found less desirable than pressnre, because it never yields so pure a juice, on account of the necessary addition of water; and secondly, on account of its being so costly in its application.

Extraction by diffusion is the later process, and is the cheapest and best yet discovered. One-third of the men can be dispensed with, required by either of the other processes; a clearer and purer juice and more of it, is obtained than by any other process, and is the one adopted in all the new factories of Russia, Poland and Sweden, and now, as we see by the papers, in Anstralia. The Sacramento Beet Sugar Company also uses, and very successfully, the diffusion process.

ARTIFICAL MARBLE.—The Manhattan Marble Company, whose works are located in Oakland, turned out their first piece of work last week. The artificial marble they produce is susceptible of a fine polish and may be made in any color. This is the third company mannfactnring artificial stone in this State. In this connection it may be stated that a fine quarry of variegated marble has recently been discovered in lower California, which is pronounced equal to any foreign article.

Mountain Farms.

Persons desirous of giving their attention to farming on a small scale with a diversity of products, would do well to take a careful look at our broad acres of mountain lands, for the most part quite neglected, except so far as they are made available for pasturage. We are satisfied that a great many who think that nothing but flat valley land will answer them, would be a great deal better pleased with a mountain locality after having given it a single year of trial.

Mr. M. A. Misenheimer gives us a few points of interest touching the peculiarities of soil and climate of a section of country which he designates as the warm belt, of that part of the mountain country lying between San Jose and Santa Cruz, and it is upon the information derived from those having a positive knowledge of things from an actual residence, that we base our belief of its advantages, Mr. M. sums up as follows:

The land can be obtained at less cost than valley land; while it is equally well adapted to grains and fruits and particularly the latter. The country never suffers from lack of rain, though the adjacent low valleys often do; there is simply more rain on the mountains than in the valleys. The country is wooded, and furnishes an abundance of fuel and timber. Animals in reasonable numbers do better and are kept at less cost than in the brazen heat of the low and treeless plains and valleys.

The country is rife with cool and sparkling trout brooks and streams that never fail; and would be a paradise for the trout breeder in artificial ponds supplied from natural, trout waters. It is the country of all others in California for chicken ranches and the growing of every other description of fowl. And what we say of that particular section of California, will apply with nearly equal force to millions of acres of semi-mountain lands along the entire length of the Sierra Nevada and Coast Range mountains.

Composts.

An unpractised man, taking up an Eastern work on gardening, would need be a rash and confident one to go beyond it. He would suppose that grapes could not be grown in anything except blood, bones and road-sweepings, very old cow dung, very old this and very old that—two parts of this and four parts of that, and one part of the other, etc., none of which he can by any possibility handily get. Now here in California, at any rate, grapes will ripen without road-scrapings, and roses will flower well without guano. There is, so to speak, a kind of "rule of thumb," by which all good gardeners are mainly guided in our prolific soil and climate, and he is an excellent one who can be completely successful in transferring this *hocus pocus*, or in other words, practical nack, to others; a perception and not an argument guides chiefly in the management of his fruits, plants and flowers. The science of growth is so little understood, that writers beat about for elaborate explanations of the things which they know, or have been told, and in order to make a good long article, which nobody wants to read, and nobody cares to follow, invent a good deal of facts. Our advice is in the operations of horticulture, that a man should have good sense, fine perception, cultivated taste and industrious habits; then, if he goes to work, after many failures, he will make a good gardener. We charge nothing for it.

Full Bloods.

We learn that the term, full blood, as applied to sheep, goats and other animals, is in some cases used by dealers to convey a wrong impression. Because an animal is full of blood, it does not follow that it is a *full blood*, though it may be sold as such. In order to guard against the imposition of unscrupulous dealers, the more honorable class of breeders have, as by mutual consent, agreed to make use of the term pure bred instead of full blood; then there can be no mistake.

As an instance, Thos. Butterfield & Son have their established prices for pure bred Angora goats, and then a scale of prices suiting the grade from the lowest to the highest; and this plan is pursued by other responsible dealers who guarantee what they sell. So that when we hear of pure bred, high, middle, and low grade as applied to the purity of the blood of the animals we buy or sell hereafter, we shall know just what is meant.

CENTENNIAL EXPOSITION.—Pennsylvania will, it is said, appropriate $1,000,000 in aid of the forthcoming Centennial Exposition. Philadelphia will also appropriate $500,000.

ORANGES from Southern California are coming in freely. The crop will be less than last year, but the fruit is larger.

Grain Sacks and Jute.

We would like to impress upon our farmers the importance of giving more attention to those textile fibers other than cotton, that have enriched other peoples and countries by their production and manufacture into the varied fabrics so extensively required in all countries. Our small farmers cannot make themselves rich in the cultivation of wheat alone; their acres are limited and no man can get ahead very fast who only works the time necessary to sow and harvest a wheat crop. There must be a diversity of crops, that will engage the attention of the culturist the year round. Then may we look for a more extended prosperity among our farmers; and to call their attention to one of the new products likely to attain prominence and value we annex from the *Bulletin* the following on the culture of jute:

The address delivered by the President of the State Agricultural Society at the annual meeting, touches, among other items of interest, that of the cost of grain sacks to the farmers of this State. The expenditure for this item alone last year is set down at $2,450,000. These sacks are made of jute imported from India and worked up in Scotland. The opinion is expressed that the rich bottom lands, especially in the southern part of the State, where irrigation is practiced, will produce jute equal in quality and quantity to that of India.

Besides the uses of this material for grain sacks, it is incorporated into more costly fabrics, while the coarser parts and refuse, known as jute butts, are eagerly bought up for paper stock. According to Mr. Reed's estimate, it required last year 2,722,222 bushels of wheat, or one-eleventh of the entire crop to pay for the sacks. There ought to be capital and enterprise enough in California to master this business. The importer of the raw material makes one profit, the manufacturer another, and the importer the third one.

We have taken hold of sugar production in earnest, and are making commendable headway. There is a ludicrous side to the fact that we cannot furnish sacks of the coarsest material for the wheat and the wool which must be sent to market.

We have made very little progress in the matter of producing textile materials. Flax production increases slowly, if at all, although for years high prices have been offered for the seed. Little or nothing has been done in hemp, which has long been one of the most profitable crops raised in Kentucky, Missouri and others of the Middle States. A few persevering men are doing their best for cotton culture in the San Joaquin Valley, and with every prospect of success. The two and a half millions of dollars required for grain sacks ought to send some pioneer into the field for jute.

WE WANT RAIN.—The warm weather of the last three weeks with its present continuance, is certainly becoming—we cannot say painfully—monotonous. Not to see a flake of snow, nor an icicle; nor a spangle of frost; nor a drop of rain; nor feel a puff of wind sufficient to raise a respectable San Francisco dust, is getting to be a little too nearly a fixed fact. We want a change that will bring us rain, to carry forward our immense acreage of wheat to a condition of certainty, and then California will possess the assurance of a year of unequalled plenty.

THE EPIZOOTIC.—Considerable alarm exists in some quarters in regard to the prevalence or not, of this disease in California. Some contending that we have it, others that not a single case has occurred in the State. Horses in a few localities have colds or slight fevers with inflamation, but nothing as yet to prevent them from doing their regular work; whilst at Salt Lake and points this side, reaching as near us as Virginia City it prevails to an extent that interferes with staging and teaming.

REDUCTION IN TELEGRAPH RATES.—It has been announced that after the 1st of February, all rates between the different offices of the Western Union Telegraph Company, for ten words that are now more than $2.50 will be reduced to that price. This is particularly beneficial to parties in this State, as it reduces telegraphing expenses to the East materially. Cheap telegraphy is one of the necessities of the age, and the people care very little who furnishes it as long as they have the benefit.

AN ANCIENT FROG.—While the workmen were engaged in sinking a vertical shaft at the Black Diamond Coal Company's mine in Mount Diablo, recently, they came upon a frog at the depth of 172 feet. It was imbedded in solid sandstone, so that the impression of its form was perfect upon the rock around it, but nevertheless, was alive, and lived for twelve hours after its extraction. The President of the company now has it, and will present it to the Academy of Sciences.

HORTICULTURE.

Fruit Localities.

We have often asserted that with us in California there have been great mistakes made by fruit culturists, if sweetness and richness of flavor, juiciness, and freedom from mealiness is their object in their productions, especially apples and pears, by growing these fruits in the flat and low bottom lands and intensely hot valleys of our State. Our markets in San Francisco and the other large cities are filled in winter mostly with apples and pears from orchards within a comparatively short distance of this city. Some of these orchardists not far from San Francisco have already found out this mistake, and are substitutiug for their larger fruits—apples and pears—cherries and other small fruits. Now the places for apples and pears, (also grapes) are the foothills of Nevada, Placer and other couuties. We seem, this winter, to have a greater supply of apples from these parts than former seasons, for more of them are fresh, juicy, and rich in flavor thau usual. Some of them, we find, are also from the State of Oregon, which produces fine, solid and juicy fruit. If we cultivate our fruit, then, in the right localities for each, and treat it properly and judiciously, with a certain amount of irrigation in some places that require it, and this done at the requisite time aud not too frequently, we are decidedly of opinion that we can produce as good fruit of almost every variety as can be grown in any other part of the State. Some very good and large sized fruit has been sent in large quantities to St. Louis, Chicago, and other places this last autumn and winter, chiefly Bartletts aud Vicars of Winkfield—the last being particularly fiuely colored with a beautiful blush next the sun. We found them on the cars eastward in plenty, in December.

We have a good deal to learn yet about the true and real resources of California, as to locations, climate, aspects etc., and people abroad, also, do not yet understaud what cau be accomplished here. Oue locality will be found adapted to cherries, another to peaches and plums, a third for wine grapes, while still another will supply table grapes, and, as we have before observed, the hill couutry will produce fine, beautiful and juicy pears and apples. It is very doubtful if we can do much with oranges within a hundred miles of San Francisco, except, perhaps, in a few and not extensive favored spots. These and apples can not be raised in any very remunerative degree or of excellent quality close together. And as to the banana, it is absurd to think of it in connection with the site for apples or pears. California is a peculiar and favored land, but nature cannot perform impossibilities in it. Let us study the proper adaptations of its soil and climate to each and every production, and it is already satisfactorily evideut from late results that many and new crops are becoming decided successes. At any rate, and without any room for dispute, for fruits, wines, wool and wheat we undoubtedly stand the first in the Union.

Mulching a Young Orchard.

The question is asked us, "will it pay to go to the expense of mulching a young orchard of a thousand fruit trees?" To which we answer, most assuredly it will; but at the same time it must depend something upon the material used and its cost. A sufficient quantity of moisture in the soil is premised; the object of mulching is to keep it there by preventing surface evaporation, and this is done by covering the soil with some kind of loose material as sawdust, chips, straw, tau-bark or pulverized charcoal.

Now it might be supposed that the cost of any one or other of these materials within reach of the orchardist, would determine the proposition of mulch or no mulch; but it is not necessaryily so. As to the advantage of mulching plantations of small fruits or orchard trees, it admits of no doubt, countless instances of benefits accruing from the practice are well authenticated. In newly formed plantations partieularly is its value most conspicuous.

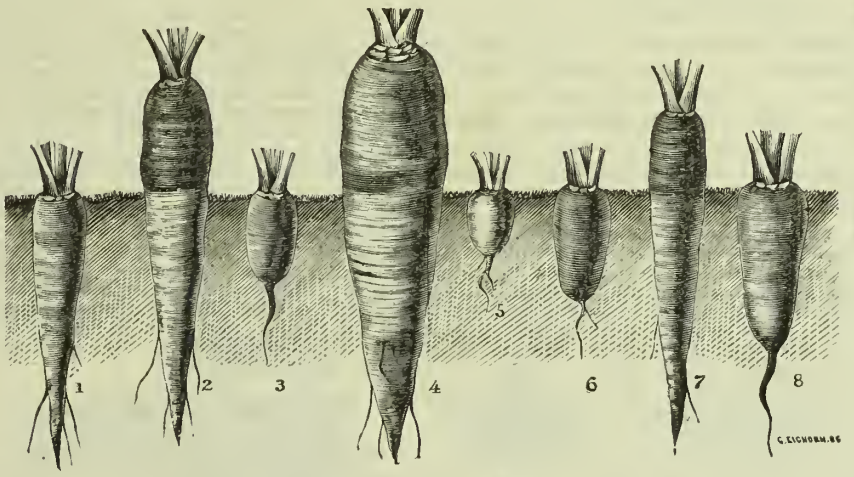
Evaporation is not only kept down but the growth of weeds, which would extract the moisture from the soil, is also prevented; in like proportion is the root-growth of the tree encouraged. We suggest a mulch that is always procurable and cheap; it is simply to keep two or three inches of the surface soil perfectly loose, fine and friable and without a weed. Such a surface of powdery soil forms a good non-conducting stratum, nearly equal to any foreign matter obtainable; only that it requires to be stirred anew after every, or the last beating and packing rain of the season.

The Carrot.

This common garden and field esculent is too well known to require any lengthened description; and yet there are many who do not sufficiently appreciate its value as a farm product, content with seeing it now and then upon the table as a kind of second rate edible vegetable as compared with the beet, potato or even the turnip, and more generally used for giving flavor to soup than eaten as ono of the substautials.

They have long been held in high esteem, iu fact stand in the first rank of vegetables as food for auimals and particularly for the horso and milch cow. Horses can be kept fat on carrots, and cows fed with them yield milk which produces highly colored and rich cream. Their value for fattening depends almost wholly upon their saccharine quality, as they contain a large amount of sugar. And here comes in one fact counected with their use, not everywhere understood by the farmer, or those who eat them as a table vegetable.

Their saccharine product consists of free sugar, and not starch convertible into sugar by a chemical process, as with the potato. In boiling the potato the starch is retained, being iusoluble in water; but boil the carrot and the free sugar unites with the water, until, when sufficiently boiled to be eaten, it is found to havo lost almost its entire swectness or fattening quality. Hence, though potatoes may be boiled with advantage as food for animals, the carrot should not be, unless the water in which they are boiled can be utilized.



THE CARROT FAMILY.

The carrot sports in numberless varietics, and yet some of them—as with beets—maintain certain forms or habits of growth that seem to mark them as distinct varieties. Our engraving is illustrative of some of these forms and is interesting as showing what simple culture and care will do in giving us varieties suited to the different requirements of the table and the farm. The seeds of numerous kinds can be obtained of R. G. Trumbull of the New York Seed Warehouse, 427 Sansome street, to whose courtesy we aro indebted for the engraving here used.

As a general rule all vegetables of the root species are proportionately sweeter as they grow more or less beneath the surface of the soil; that part above ground containing more of the herbaceous, bitter principle and also the salts of soda or potash. Hence, No. 1, the Long Orange is everywhere a favorite, because of its usual large yield and excellent flavor. No. 2, is the Large Orange Belgian Green Top, a largely productive variety, easily drawn from the grouud by hand. No. 3, the Short Horn, desirable for its early maturity. No. 4, Long White Belgian Green Top, enormously productivo and valuable for stock feeding.

This variety is sometimes grown—it being a white beet and abounding in sugar—for sugar making; but owing to the peculiar carroty flavor, is not as well adapted to the purpose as beets. No. 5, is the Early Short, maturing sooner from the seed than any other known variety. No. 6, half long Scarlet, stump rooted; very sweet, and beautiful in color. No. 7, the Altringham, has a good reputation as food for milch cows, increasing the yield of milk and cream without fattening the animal too much. No. 8, half long Scarlet, ripens early, with a fair yield, and is said to be the sweetest carrot grown.

THE pear and apple are natives of Europe.

Soil for Apple Trees.

The successful cultivation of the apple depends very much on the suitableness of the ground they are planted iu. The size aud flavor of the fruit, aud the general health and duration of the trees, are most commonly the result of good or bad soil. Climate, situation and altitude also affect both trees aud fruit—especially in this State, about in the degree, indeed, iu which the same are effected by the qualities predominant in the laud. Of all the different descriptions of soil to be met with, that of a soft hazel colored loam, containing a small portion of sand, seems to be most congeuial to the apple generally. In such soil the tree is seen to flourish longest, is most productive, and remains freest from disease or attack of insects. A great depth is not requisite; eighteeu or twenty inches deep being quite enough, provided it be on a dry subsoil of gravel or loose rock. If the bottom be wet, the trees should be plauted high, and every means taken to drain the grouud to provide against some of our excessive rains. A wet bottom of gravelly clay should be avoided if possible.

Deep rich soils in sheltered situatious are not the most proper for the apple, for it is often that apple trees succeed well iu auy kind of loam, though it be not more thau one foot iu depth, so as the bottom is souud and dry, the roots take an extensive horizontal range, the young wood is always of more moderate growth, and better ripened than when roots strike deep into the ground.

Although local circumstances often control the works of the planter, compelliug him to hit on a site where the soil may not be exactly what is recommended above; he must, in this case endeavor to make the soil by trenching, subsoiliug, or draining, and by the addition of the qualities wanting, bring it as near to the standard as possible.

The situation of an orchard should neither be in the bottom of a narrow valley nor indeed, in any very low grouuds that are too wet or too deep and rich a soil, nor on the very summit of hills too much exposed to high winds. In the first, the young wood is never so well ripened, the buds are often too early excited, in the spring or even winter here, and there frosts are always more intensely felt, except on very high mountain ranges; in the second, fruit-bearing trees are always too much exposed to hard gales. A medium between the two extremes is better; therefore the most desirable site is the side of a hill which slopes gently to the southeast, that being the most sheltered situation in this country. But when the violence of a north or west wind is broken by an intervening rise of ground, a southwest aspect has been found equal to any.

What Swan & Co. are Going to do About Packages.

In investigating the box question we had occasion to call at the Union Box Factory, No. 114 and 116 Spear street. This is a large establishment, 92x137½ feet, and the proprietors have been a long time at work introducing new machinery and new methods for reducing the cost and improving the quality of all sorts of packages.

Their improvements rest upon sliciug timber instead of sawing, and an impervious coatiug by which they can make a wooden box hold anythiug.

By means of two large knives slidiug in gates they can cut timber into slices from 1-64 to ½ an inch thick, and leave it as smooth as writing paper. Thus they savo the timber formerly wasted in sawdust and chips, and the time and power necessary to make the sawdust and chips. By furnishing wood so thin it can be used instead of pasteboard, and the same weight and thickness of material makes a stronger, stiffer, better box. It can be covered with any kiud of fancy paper for a finish. This impervious coating enables them to use wood instead of tin with the advantage of a non-conductor of heat, no rust and no taste. One man wants 100,000 lard caddies, and they are constantly being adapted to new uses as coffee boxes, pickle jars, jelly boxes, etc. They can be made round, square, octagon or any shape you wish.

Peach Baskets at Half the Old Price.

These are made light, neat, nesting nicely and at half the price that any others can be sold. Like everything else made from sliced stuff they can be shipped iu the flat, so as to take up no more room than so much solid timber, aud can be put up where they are used.

Boxes for Plums, Apricots and Cherries

Have been very extensively used the past year aud furnished at thirty per cent. less than old prices. Their use has demonstrated the fact that the principal strength of the square box depends upon the pieces that hold the nails. If only the euds are strong the top, bottom and sides may be quite thin. These are geuerally put up where used

For Berries,

He furnishes four or eight-pound drawers suitable for slipping into commou chests at $25 to $30 per thousand. These are sent in the flat and can be put up very rapidly by almost any boy or Chinaman. He is also experimenting with a package greatly in favor in Chicago, as a oue and two-pouud basket. It will be very cheap aud very light.

Grape Boxes

Are made similar to strawberry drawers, save that they have a cover which turns back so that the fruit can be shown without drawiug any nails. An exteusive experieuce in shipping grapes to the New York and Boston markets, iu differeut kinds of boxes, convinced us that the most money was to be made by shipping in as small a box as would answer to pack grapes uicely without cutting the clusters. The fruit reaches the table iu much better order from the original package thon when taken from a large box, weighed and sent home in a bundle.

All these light boxes have corners made by scoring half way through the wood and bending it. We think something similar to this box will be used for all kinds of dried fruit, figs, raisins, etc. Fruit drying companies, as well individuals, will do well to turn their attention in this direction.

Wooden Boxes for Pickles and Jellies.

The use of this coating which makes the woodeu box impervious to any liquid and tasteless, renders it the very thing for jellies, pickles, and a thousand household uses which will develop themselves iu future. The wood ready cut for any style of box can be sent anywhere with the preparation for coating it, so the matter of freight cannot operate against their general introduction. Merchants can keep a large stock of this kind of goods in a small space and have work for the boys at odd spells.

Butter Chests

Are made here by the use of improved dovetailiug machinery, so cheap that other box makers can do better to buy of Swan & Co. than to make them at home. The same machine that dovetails these is used for makiug tool-chests, bullion boxes, and anything that requires to be very strong. It makes the ordinary dovetail.

The Mitre Dovetailing Machine,

Is quite a curiosity and makes a wonder of a box, both as regards neatness and strength. It cuts a groove iu the end of the box, and a tongue in the side to slip into it so that a very strong corner is made, aud you must knock off the top or bottom to see how it is doue. It is used for fancy boxes ⅜ of an inch thick and upwards.

Farmers' Clubs will do well to send for samples of these various styles, as Mr. Swan has kindly offered to send samples free to such organizations. It might be too much to ask him to send a butter chest without any pay; but he is a very liberal man and will do anything reasonable C.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 28th, 1873.

FOR WEEK ENDING JANUARY 14th, 1873.*

NEEDLE CASE.—Gerhard Wempe, S. F., Cal.

SEDIMENT COLLECTOR AND BLOW OFF FOR STEAM BOILERS.—John P. Leonard and George Hancock, Oroville, Cal.

*The patents are not ready for dolivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in tho shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

S. F. TRADE GUIDE.—Messrs. Bishop & Co. have just issued the January number of their Semi-annual Business Directory of San Francisco. Among other features we notice they have inserted a directory of the streets.



The Sailor-boy's Farewell.

We know not to whom belongs the authorship of the following lines—but all will agree with us in saying that nautical phrase never was more beautifully interwoven in sentiment of the heart's best love for those we cherish with the highest, holiest and purest affection.

Farewell to father—blessed hulk!
In spite of metal, spite of bulk,
His cable soon may slip;
Yet while the parting tear is moist,
The flag in gratitude I'll hoist
In duty to the ship.

Farewell to mother—first-class she—
Who launched me on life's stormy sea,
And rigged me fore and aft;
May providence her timbers spare,
And keep her hulk in good repair,
To tow the smaller craft.

Farewell to sister—lovely yacht;
But whether she'll be manned or not,
I cannot now forsee;
May some good ship a tender prove,
Well found in stores of truth and love,
And take her under lee.

Farewell to George—the jolly boat—
And all the little crafts afloat
In home's delightful bay;
When they arrive at sailing age
May wisdom prove the weather-gauge
And guide them on their way.

Farewell to all on life's rude main
And though we ne'er may meet again
Through stress of stormy weather,
Yet summoned by the Board above,
We'll anchor in the port of love
And all be moored together.

"Our Boys."

A distinguished gentleman, of this city, has attracted much attention to the above subject, in its local aspect in San Francisco. But the question has a much wider interest. Dr. Dio Lewis has also written a work for "Our Girls," and numerous others have criticised the "Girl of the Period." But we now propose to call attention to some ideas by Mary H. Villars on what we should do with our boys:

All the way from the cradle up to womanhood, a girl seems to fall naturally into her place, or the place assigned her, and never appears to feel awkward or in the way. But there is a period in the life of a boy, when neither he, his guardian or friends know where he belongs, or how he should be treated.

A girl glides naturally along from girlhood to womanhood; and sometimes in this fast age so rapidly that you almost conclude that the period of girlhood is left out entirely. With boys, it is very different. There is a time in a boy's life when he seems to feel that he is out of place everywhere. And at this very time, when he needs sympathy the most, he gets the least of it. He is too big to be petted like a baby, and not large enough to be treated as a man. He is too boisterous to be in the parlor; the cook sends him out of the kitchen, because he asks too many questions; the father is too much engrossed in business to notice him, or give employment or direction to his active, inquiring mind; the mother is too busy preparing dainties for his stomach, or flounces for his sister's dress, to pay much attention to her son's brain or heart, and as a natural consequence he goes into the street. The education he receives there, is soon made manifest.

To me, there comes a question, deep and momentous: "What shall I do to save my boy from the snares that are laid for his feet in his future career in life?"

One thing I have determined on, and that is, I will never, knowingly, by word or deed cause him to feel that he is in my way in the house he calls home. Not even though my carpets be spoiled by muddy boots, and my best furniture be marred by finger-marks. It were better that my carpets be soiled and worn, and my best furniture be scratched or broken, than that, the immortal soul, which God has intrusted to my keeping, should become scarred and mired by the vileness which is found in our streets and public places of resort.

Soiled and worn furniture may be replaced by new, but the soul once scarred and disfigured by sin can never be what it might have been, shielded a little more carefully during these few years of youth, when it was so pliable to every touch.

I have no doubt but there are many mothers who feel this great question pressing upon them in all its responsibility, and yet with a feeling that they are unable to solve the problem.

While boys are under six or seven years of age they are generally almost entirely under the care of the mother; but after that period they seem to gradually drift out from under her influence, and unless the father is very watchful they are finally left to pursue their own way; oftimes to the sorrow of their friends and their own destruction.

But is this necessarily so? May not mothers still continue to exercise the same influence over their grown sons that they do over their daughters? I think they may; and yet I speak, not from my own personal experience, but from the fact that some mothers do retain this influence over their sons, even after they have arrived at the years of maturity.

For some time this question has been weighing upon me, but I was awakened to deeper thought on the subject as my own boy came to me on my return from attending our annual conference and proudly announced the fact that he was seven years old. "Just think, mother, last Sabbath I was seven years old, and next birth-day I shall be eight! That will not be long, will it, mother?" and as he stood by my side with one arm about my neck and told me of all his little pleasures and troubles during the week that had passed, I wondered if the time would ever come when my boy would think it was not worth while to confide his heart thoughts to his mother. And I thought, "If the time does come, I shall feel that I have lost one of the dearest privileges of my life."

It is hard to realize that our children are no longer little ones at our feet, but it is harder still to feel that they have grown beyond our confidence. And I do not think it absolutely necessary that they should, if we could only understand the right way to retain that confidence.

I have seen mothers with sons six inches taller than they and yet those sons reverencing and trusting their mother with a devotion that was touching and beautiful. May we not all retain that confidence and exercise that influence? I feel that we may if we only pursue the right course. But we are in danger of erring in judgment as to the manner of doing it. Too much indulgence will not do it. Too much restraint will not. Who will show us the golden mean?

Babies Among the Ancient Romans.

I must say a few words about the babies and young children. They are made bond-slaves at birth, for the first thing the nurse does after ablution is to wind around the infant—arms, body, and legs—swaddling-clothes, and these usually indicate the rank of the parents. Some are wrapped in very costly stuffs tied with a golden band; others with a fine, white shaw, such as the wealthy ladies wear in cold weather in their houses, fastened with scarlet strings; while the poor wrap their babes in broad fillets of common cloth. The old Lacedemonians seem to have been wiser, for they only wrappped a broad fillet of linen around the body, and left the arms and legs full liberty.

These Romans put their babies into cradles of various forms. The most common are those of a boat and a hollow shield. Josephus, the Jew, I have mentioned, tells me that the infant life of the great law-giver of his people was saved by his having been concealed among the osiers of the Nile by his mother in a boat cradle. Sometimes, when the baby is a year old, the mother shaves its head and puts jewels in its ears, if it be a girl; and so soon as it begins to walk an ornament, called *Bulla*, is hung about its neck. This is often only a disk of metal, with the name of the child's family engraved upon it, so that the little one may be identified if lost; but more often it is a hollow metal case, sometimes highly ornamented, which contains charms against evil spirits. The children of of the poor have disks of leather so marked that the babe may be identified.—*Harper's Magazine.*

A Single Word—May disquiet an entire family for a whole day. One surly glance casts a gloom over the household, while a smile like a gleam of sunshine may light up the darkest and weariest hours. Like unexpected flowers which spring up along our path, full of freshness, fragrance, and beauty, so the kind words, and gentle acts, and sweet dispositions, make glad the homes where peace and blessing dwell. No matter how humble the abode, if it be garnished with grace and sweetness, with kindness and smiles, the heart will turn laughingly toward it from all the tumults of the world, and home, if it be ever so homely, will be the dearest spot beneath the circuit of the sun.

Let Us Have Light.—The *American Builder* says: Do not arrange your house so as to violate God's first commandment. Give it many windows, and then, O housewife, keep your blinds open during the day and your curtains drawn aside. If you let the sun in freely it may "fade the carpets," but if you do not it will be sure to cause ill health to the mothers and children. The sun is a good physician. He has never had the due credit for his curative qualities—for the bright eyes and rosy cheeks that comes from his healing bath. A dark room is an enemy to good health, good temper and good morals.

Mental Weariness.—Show me the person that complains of meutal weariness, and I will find in him a torpid liver, obstructed kidney, a dyspeptic stomach, constipated bowels, or an inactive skin. If the brain worker does not sleep enough, nor eat enough, or if he eats too much, or takes improper food, his digestive organs run down, and the clock work of the brain, having no way to reconstruct the machinery through which it receives impressions and transmits volutions and impulses, is obliged to cease work. The moral is, in brief, keep the body in health, and the brain will take care of itself, work it all you can.—*Dr. Trall.*

Social Games.

There is nothing like keeping children at home these long winter evenings; but it is almost impossible to keep them at home contentedly, unless some means are devised by which home is rendered attractive and entertaining. Among the many sources of domestic and social entertainment, we have hardly seen one which will compare in value with a game we saw played at the house of a friend of ours, a few evenings since. The game requires only paper and pencils. All the parties to it being seated around a table, the paper is cut into equal sized pieces and each person takes one piece. Each one writes upon his paper a question and beneath the question, a word; the word may or may not have any relation to the question or answer to be given. The papers are then gathered in a box; are pretty well mixed by the hand of the gatherer and the box is again passed around. Each person takes one piece from the box—and every piece contains a question and a word beneath it. The paper taken may contain the question and the word written by the person who draws it but most likely by some other party. The papers being distributed, it is the duty of each person to answer in writing beneath the question, the question asked and to incorporate into the answer the word written beneath the question.

To illustrate: "Who first conceived the idea of a Government Mail?" "Cicero."

Now the answer to this question must have incorporated into it, the word "Cicero." It requires a good deal of patient thought, frequently, to write a satisfactory answer to the question and much ingenuity is often displayed in the introduction of the word into the answer. The question may be one in history, or geography, or philosophy, or science. If the question is too profound to receive an answer worthy of an expert, the answer may be eluded and the word incorporated so that a good deal of merriment will be occasioned when all the papers are again gathered and read aloud by some good reader, no person present excepting the writer, actually knowing who wrote either the question or the answer. The answer may be given in prose or in ryhme, as suits the tastes of the person making them. This game, it will be seen is of a thoroughly intellectual character and cannot fail to improve the mind while at the same time it furnishes a fund of amusement. One of the questions and answers written on the evening alluded to comes to mind. "What made Mary love the lamb?" "Negro." "What could associate negro with the beautiful picture of Mary and the lamb?—a dark shade thrown over one of nature's most beautiful dreams."

Fabled Origin of the Vine.

The following fanciful origin of the grape vine has been thus prettily rendered:

When Bacchus was young he journeyed through Hellas, to Naxia; and as the way was very long, he grew tired and sat down upon a stone to rest. As he sat there with his eyes upon the ground, he saw a little plant springing up between his feet, and was so much pleased with it he was determined to take it with him to Naxia. He took it up and carried it away with him; but, as the sun grew very hot, he feared it might wither before he reached his destination. He found a bird's skeleton, into which he thrust the plant, and went on. But in his hand the plant sprouted so fast that it started the bones above and below. This gave him fresh fear of its withering, and he cast about for a remedy. He found a lion's bone, which was thicker than the bird's skeleton, and he stuck the skeleton, with the plant in it, into the bone of the lion. Ere long, however, the plant grew out of the lion's bone likewise. Then he found the bone of an ass, larger still than that of the lion, so he put the lion's bone, containing the bird's skeleton and the plant, into the ass' bone, and thus made his way to Naxia. When about to set the plant, he found that the roots had entwined themselves around the bird's skeleton, and the lion's bone, and the ass' bone; and as he could not take it out without damaging the roots, he planted it as it was, and it grew speedily and bore, to his great joy, the most delicious grapes, from which he made the first wine and gave it to men to drink. But behold a miracle! When men drank of it they first sang like birds; next, after drinking a little more, they became vigorous and gallant like lions; but when they drank more still, they began to behave like asses.

A Goat Team.—Messrs Piscy, Scoot & Co., of Wilmington Del., have what is no doubt the finest goat team in the country, It consists of six large Cape of Good Hope Goats. The Carriage drawn by these goats is an open buggy, set rather low and holding two persons, and they create a great sensation driving over the Wilmington avenues at the rate of six miles an hour.

Monument to Fanny Fern.—It is said that Robert Bonner, intends to erect an elegant monument in Mount Auburn Cemetery, Boston, over the tomb of "Fanny Fern," Mrs. Partou, who was one of the first and most constant contributors to his *Ledger*.

Young Folks' Column.

Love wins Love.

"Mother, the birdies all love father," said a little boy of five years, as he stood with his mother watching the robins enjoying their morning meal of cherries from the old tree that overhung the house. "Does anybody else love father, Charlie?" "O yes! I love him, and you love him, but we know more than the birds." "What do you think is the reason the birdies love your father?" Charlie did not seem to hear this question. He was absorbed in deep thought. "Mother," at last he said, "all the creatures love father. My dog is almost as glad to see him as he is me. Pussy, you know, always comes to him, and seems to know exactly what he is saying. Even the old cow follows him all around the meadow, and the other day I saw her licking his hand just as a dog would. I think it is because father loves them, mother. You know he will often get up to get pussy something to eat; and pulls carrots for the cow, and pats her, and and talks to her; and somehow I think his voice never sounds so pleasant as when he talks to the creatures." "I think his voice sounds pleasant when he is talking to his little boy." Charlie smiled; "Father loves me," he said, "and I him dearly. He loves the birds, too, I am sure, He whistles to them every morning when they are eating cherries, and they are not a bit afraid of him, though he is almost near enough to catch them. Mother, I wish everything loved me as well as they do father."—"Do as father does, Charlie, and they will. Love all things and be kind to them. Do not speak roughly to the dog. Don't pull pussy's tail; nor chase the hens, nor try to frighten the cow. Never throw stones at the birds.—Never hurt nor tease anything. Speak gently and lovingly to them. Feed them and seek their comfort, and they will love you, and everybody that knows you will love you too.'—*Exchange.*

Wanted—A Boy to Attend Bar.

The paper dropped from my hands as I read this advertisement. It seemed as though I read, "Wanted, a boy to go to perdition."

I fancied I saw a bright, earnest boy going to a bar-room, seeking a living by that fearful trade of selling wine and rum. I could imagine how, one by one, all the good impulses and desires he had in the begining fell before the influences of the dram shop; how he learned to drink, to swear and to steal; how bad companions came around him and helped him on to ruin.

Ah! my lad, or whoever you are, who may be tempted by such a call, let me tell you that you had better work in the field, or at the forge, or digging ditches—anything honest—than to degrade yourself, by selling death to others. No matter how hard you work, no matter if it soils your hands or clothes, so long as it leaves your heart pure. Beware of such "good places" as will lead you into the snares of the evil one. There are many doors, besides those of bar-rooms, which are almost the same as gateways down to the world of woe.—*Morning Star.*

One Drop of Evil.

I do not see why, you will not let me play with Will Hunt, pouted Walter Kirk. 'I know he does not always mind his mother, and smokes cigars, and once in a while swears, just a little. But I have been brought up better than that. He will not hurt me. I should think you would trust me. I might do him some good.'

'Walter,' said the mother, 'take this glass of pure water, and put just one drop of ink in it.'

'O mother? who would have thought one drop would blacken a whole glass so!'

'Yes, it has changed the color of the whole, has it not? It is a shame to do that. Just put a drop of clear water in it and restore its purity.'

'Why,' mother you are laughing at me? One drop nor a dozen, nor fifty will do that.'

'No my son; and therefore I can not allow one drop of Will Hunt's evil nature to mingle with your careful training, many drops of which will make no impression on him.

"Can't Help It."—A little girl followed after her father when he came into the house, with this question:—"Father, what can I do for you?" And never was she happier then when he gave her something to do for him. Once he said, perhaps tired with her asking:

"Child' why do you ask that question so often?"

"O, father," she answered, with two great tears swelling in her eyes, 'because I can't help it."

It was love that put the question, and the readiness to undertake whatever he sent her about was proof of the genuineness of that love; she wanted always to be doing something for him.

One who can calmly bear one reproach is spared a hundred others.

Agricultural Implements.

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

Hill's Patent Eureka Gang Plow.



The following are some of the reasons why these Plows, are entitled to preference over any other Plow in use. They are made of the best material, and every Plow warranted. They are of light draught, easily adapted to any depth, and are very easily handled. They will plow any kind of soil, and leave the ground in perfect order.

FIRST PREMIUMS!

These Plows have taken First Premiums at the State Fair, at the Northern District Fair, at the Upper Sacramento Valley Fair, and the State Agricultural Society Premium of $40 for the best Gang Plow, after a fair test and competition with the leading Plows of the State.

Champion Deep-Tilling Stubble Plow,

Took the First Premium over all competitors at the State Fair, 1871. It furrows 14 in. deep and 24 wide.

This Gang Plow combines durability with cheapness, being made entirely of iron by experienced workmen, of the best material. Over three hundred are now in use, and all have given entire satisfaction.

Manufactured and for sale by the

SWEEPSTAKE PLOW CO.,

At SAN LEANDRO, CAL., under the personal superintendance of the Patentee, F. A. HILL,

And also by most leading Agricultural Dealers in the State. Send at once for Circulars, prices, etc. 21v3

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

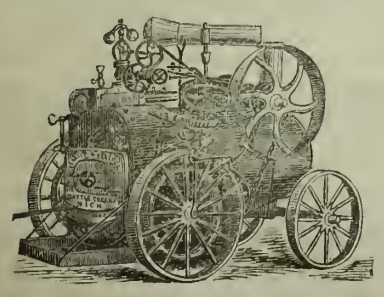
14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

KELLER & CO.,

CORNER 10TH AND K STREETS, SACRAMENTO

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE.
☞ Please call and examine. 17v4-1y

TUSTIN'S PATENT

FIRST PREMIUM WINDMILLS

ARE THE MOST POPULAR
Of any on the Pacific Coast.

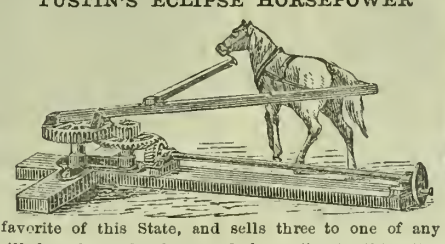
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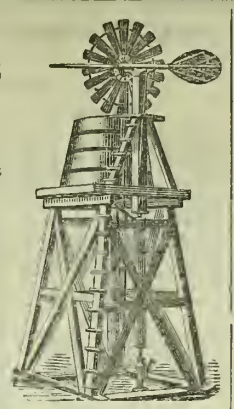
Send for a Descriptive Circular containing Price List and all other particulars, postage free.

TUSTIN'S ECLIPSE HORSEPOWER



Eureka.





Economy.

Is now the favorite of this State, and sells three to one of any other make.

☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the Golden State Windmill, which is an infringement on the Celebrated "Eureka" Windmill, for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

MANUFACTORY, corner of Market and Beale streets.....SAN FRANCISCO.

W. I. TUSTIN, Inventor and Patentee,
sc16-1am3m And Pioneer Windmill Manufacturer of the Pacific Coast.

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street.....SAN FRANCISCO.

IMPORTERS AND JOBBERS

— OF —

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

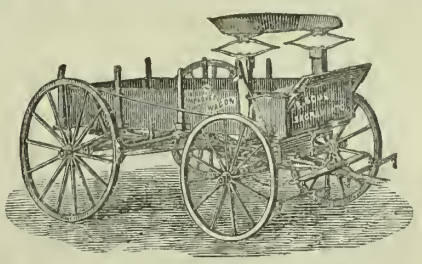
Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

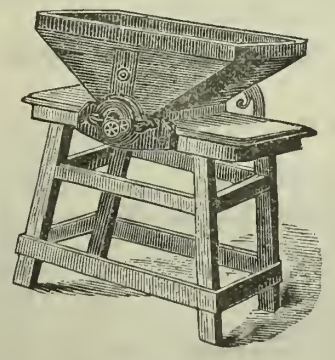
Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m



FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
sp22-3m San Quentin, Cal.

THE CELEBRATED CHALLENGE FEED MILL



For Farm use and Custom work. The only Practical Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

M. S. BOWDISH, General Agent,
With Hawley & Co., cor. California and Battery sts.,
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AVERILL'S CHEMICAL PAINT

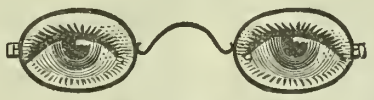
Of any desired Shade or Color,

Mixed ready for application, and sold by the gallon

It is Cheaper, Handsomer, more Durable and Elastic than the best of any other Paint.

Office, corner Fourth and Townsend streets, San Francisco. Send for sample card and price list.
15v23-3m eowbp HEALY & JEWELL, Agents.

BRAZILLIAN PEBBLE SPECTACLES.



Made from Solid Rock and

"Clear as Crystal."

TRY THEM.

They Have No Equal

SOLD AND GUARANTEED BY

Thomas Houseworth & Co.

PRACTICAL OPTICIANS,

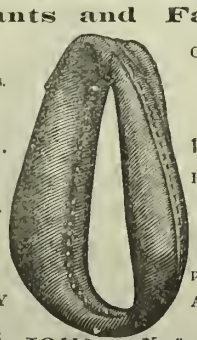
No. 9 Montgomery st., Lick House Block, San Francisco.

BEWARE OF IMITATIONS.

Persons in the country can be suited with the BRAZILIAN PEBBLE SPECTACLES by forwarding one of their old glasses in a letter; or, if they have never worn glasses, they will please state the fact, and age, health, etc. Ordinary glasses to suit all sights can be procured in the same manner. 16v4-3m-awbp

Merchants and Farmers,

Examine our HORSE COLLARS. Adopted by BEST IN USE. ALL GRADES. No complaints. No repairing. Don't believe FOR SALE BY Manufactured only by



COPPER RIVETED Pat. Nov., 1861. U. S. Army. 18,000 SOLD. HEAVY & LIGHT. No ripping. Examine for yourselves. prejud'd parties. ALL DEALERS

J. C. JOHNSON & CO.,
101 FRONT STREET. SAN FRANCISCO.
Dealers in Harness, SADDLERY, Leather, etc.
Liberal discount to the Trade. 19v4-3m

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,
Manufacturers of and Dealers in
Monuments, Headstones, Tombs,
MANTEL PIECES, ETC.,
421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.
21v2-1y

Stock Notices.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere

GOATS

— OF —

PURE BLOOD

— AND —

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all part of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
5v3-eow-tf California.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.



— ALSO —

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGH BRED on either side you breed FORWARDS." —*Alexander*
"You get no FIGS from THISTLES."—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
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Office and Rooms, in Webb's Building, 78 cond St., opposite the Grand Hotel.

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

BREEDERS OF DURHAM CATTLE.

The California Short Horn Durham Breeders' Convention will meet, pursuant to adjournment, at the GRAND HOTEL, in the city of San Francisco, on the Evening of the first Monday of February, 1873, at eight o'clock, for the completion of their organization, and other business. All breeders of these cattle and their grades are respectfully invited to attend.
ja18-3t G. N. SWEZY, Secretary.

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

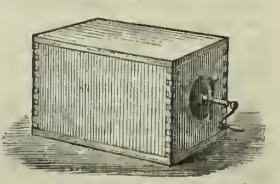
WILCOX'S IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

CHURNS.



Those in want of BOX-CHURNS will do well to call at the old stand, 113 Commercial street, San Francisco, between Davis and Drumm, and examine our improvements before purchasing elsewhere.

The undersigned is the pioneer in this line, having manufactured them for the last ten years in this city.
☞ Patent applied for.
14v22-3m H. G. PRATT.

N. J. AIKIN, M. D.,

Physician and Surgeon.

Office, 137 Montgomery street, corner Bush, opposite Occidental Hotel, SAN FRANCISCO, CAL.

Office hours, 9 to 3 and 4 to 8. Sundays, 12 to 2.

100 YEAR ALMANAC. FOR 50 CENTS we send, post-paid, an Almanac giving every Year, Month, Week and Day of the Century; also a Pocket Calendar for 1873. Extra inducements to Agents. Address
GEORGE A. HEARD & CO., Boston, Mass.
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Lewis & Pander, Dealers in Stoves,



Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

S. F. Market Report.

Weekly Market Review

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, M. Jan. 29th, 1873.

During the week the market has been weak in the matter of wheat, which has experienced a decline of a few cents according to sales made—dealers, however, give the last week's figures still. Other cereals such as Barley and Oats are firm.

RECEIPTS.—Receipts have been large last week when compared with the previous one. The receipts of Wheat have been about the same, but those of Four has nearly doubled; those of barley have doubled; wo have received six times as much oats, twice as much Potatoes, seven times as much Buckwheat, and nearly twice as much Wine. Wool receipts have been very slight and those of Hides have deerea sed.

We suiumarise receipts of Bay produce to date, as 25,214 quarter sacks of Flour, 311,927 contals of Wheat, 10,047 do of Barley, 497 do of Oats, 147 do of Buckwheat, 46 do Corn, 1,904 do of Bran, 182 do of Middlings, 3,075 do of Potatoes, 425 do of Onions, 594 do of Beans, 1,579 Hides, 56 bales of Wool, 647 tons of Hay, 72 do of Straw. 21,290 gallons of Wine, 200 do of Brandy, 25 bales of Hops, 94 tons of Salt, 125 barrels aud 150 half-barrels of Beet Sugar, 15 centals of Flaxseed and 327 bales of Chieeory.

WHEAT.—Receipts at Oakland wharf havo aggregsted 48,400 centals, or 242 car loads.

Receipts of priucipal articles of Coast produce have been 4,537 centals of Wheat, 4,687 do of Barley, 200 do of Oats, 10 do of Buckwhest, 6 do of Rye, 3,081 do of Corn, 193 do of Beans, 14,413 do of Potatoes, 188 Hides, 67 hales of Wool, 27 pipes, 1 keg, and 1 box of Wine, 2 pipes of Brandy, 3 centals of Onions and 2 of Mustard seed. Santa Cruz sent ln half the Wheat, San Luis Obispo one-fourth, the balance hailing from San Diego, Tomales, Moss Landiug, Santa Barbara and Moro bay. The Barley came from Sants Barhara, Ssu Luis Obispo, Tomales, aud Moro bay, San Diego, about one-half from Santa Barbara.

The Oats came from Tomalos, the Rye from Santa Barbara, ths Corn from Santa Barbara, San Diego and Moro Bay; the Beans from Santa Barbara and Moro Bay; the Hides from San Diego and Santa Barbara; the Wool from Humboldt, San Luis Ohispo and Santa Barbara; the Wine from San Diego snd San Luis Obispo; the Brandy from San Diego; the Ouions from San Luis Ohispo, aud the Mustard Seed lrom Santa Barhara; Humboldt supplied ns with three-fourths of the Potstoes; Point Arenas, Tomales, Moss Laudiug and San Luis Obispo with the balance.

BARLEY.—Bsrley is firmer in consequence of the receipts having been light for a good while past. Wo received large quantities last week. We quote sales of 1,600 bags of Coast at $1.25, 200 bags of Coast at $1.27½, 500 do at $1.30, 400 do of Feed st $1.32½, 1,000 do of Choice Coast at $1.37½, 1,000 do of Choice Coast Brewing at $1.40.

FLOUR.—Flour remaius unehanged. Some lsrge sales have been made for export. Export during the week has aggregated 1,895 half sacks, and 18,930 quarter sacks for Punt Arenaa, New York, Panama, Mexico and Liverpool, by the vessels, "Hazard" and "Legal Tender," and the mail steamer "Coustitution."

HAY.—Receipts have been less than last week, those coming in being chiefly Wild Oats. Wo note a sale of 30 tons of Wild Oats at $16.

HOPS.—Receipts of new season still remain light, the market is dull, and no sales have been effected. In England, Hops are still advaneing, having risen 1¼ ceuts to 1¾ cents per pound during the week ending December 30th, 1872.

OATS.—Oats, like Barley, are much firmer, as a result of the extremely small receipts. We note sales of 150 sacks of fair, at $2.05; 300 do of choice, at $2.12½; 100 do of choice, and 1,700 do of Oregon, at $2.20 to $2.25.

POTATOES.—Receipts last week have been large, amounting to 17,488 centals. Wo note the followlng sales: 1,140 of Humboldt at 90c to $1.20; 200 do of Bodega, at 85c, and 200 do of Petaluma at 80c.

WHEAT.—Last weeks' receipts from all quarters, aggrogate 364,864 centals, an amount in exeess of the previous week. Exports have beeu agaln very large, nearly double those of the previous week. Freights still tend upward, being now quotable at £4 7s 6d to £4 12s 6d, or from $21.20 to $22.47, an advance of $3.00 on the previous week. According to the telegrams received by the Merchants' Exchange, wheat in Liverpool has fallon 2 cents per cental during the week, being now 12s 4d to 12s 6d, or $2.99 to $3.03. Wo note the following sales: 400 sacks of inferior at $1.67½; 200 do of common, at $1,70; 900 do of Coast aud luferior at $1 80; 300 do of Shipping at 1.90; 2,200 do of fair Shipping at $1.92½; 500 do of good Milling at $1.95 and 400 do of good, at $2.00.

Exports have ncarly equalled those of last week. They include per "Criterion," to Cork, 44,042 centals; per "Anahuac," to Cork, 40,204 do; per "Ben Mooro," to Liverpool, 17,257 do; per "Borrowdal," to Liverpool, 44,719 do; per "Kelso," to Queenstown, 16,668 do; per "Merope," to Queonstown, 27,336; do per "Jupiter," to Liverpool, 25,048 do; per "United States," to Liverpool, 39,470 do per; "Windward," to Liverpool, 19,083 do; per "Royal Edward," to Liverpool, 44,125 do; per "Charles A. Farwell," 34,958 do and per "Sarah Grice," to Liverpool, 33,930 do, making a grand total of 386,838 centals, worth $769,273.

WOOL.—There is no change in Eastern quotatious, it is dull by telegram. There has been no movement during the we k in the California market. In another part of the RURAL PRESS we present a most elaborato Wool Review for 1872.

GENERAL MERCHANDISE.

We have received a cargo of Chinese goods from Hong Kong and one of assorted goods from New York during the week. Our exports have beeu very large. They were taken away in 17 vessels, 12 of which were loaded with Wheat, and their total value equalled $961,192.

DOMESTIC PRODUCE AT WHOLESALE.

Wednesday M., Jan. 29, 1873.

FLOUR.			
Alvisc Mills, bbl.	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 25
Coumne'l Mills	4 50	@	6 25
Goldsn Gate	4 50	@	6 25
Golden Age	4 50	@	6 25
Natioosl Mills	4 50	@	6 25
SantaClaraMills	4 50	@	6 25
Gensse Mills	4 50	@	6 25
Oregon	4 50	@	6 25
Vallejo Star	4 50	@	6 25
Venus,Oakland	4 50	@	6 25
Stockton City	4 50	@	6 25
Lombard. Sac.	4 50	@	—
BEANS.			
Beans sm'l w'hte	3½	@	—
do. butter	4¾	@	—
do. large, do	5	@	—
do. bayo	3½	@	—
do. pink	4	@	—
Pea	3½	@	—
BROOM CORN.			
Per ton	$40	@	120
GRAIN, ETC.			
WheatOal. coastl	90	@	1 95
do, shipping	2 00	@	2 05
do, milling	2 00	@	2 05
do, Oregon	—	@	—
Barley, DarkO'stl	25	@	1 30
do, Light	1 30	@	1 35
do, Brewing	1 40	@	1 50
Oats, Coast	2 00	@	2 12½
do, Light	2 20	@	2 30
Corn, White	1 20	@	2 30
do, Yellow	1 25	@	—
Buckwhsat	—	@	2 00
Rye	2 00	@	—
DAIRY PRODUCE			
Butter,Cal. fresh	45	@	—
do, ordin'y roll	40	@	—
do, choice	47½	@	—
do, nsw firkin	35	@	—
do, packed	32½	@	—
do, New York	34	@	—
Chesss, Cal. nsw	18	@	—
do, Eastern	14	@	18
Eggs, Cal. fresh	33	@	35
do. Oregon	28	@	—
do, Eastern	25	@	—
FEED			
Bran per ton	17 00	@	—
Middlings	22 50	@	27 00
Hay	15 00	@	23 00
Straw	10 00	@	—
Oil cake meal	30 00	@	—
Corn Msal	1 85	@	2 25
FRESH MEAT.			
Beef, fr quality	8	@	8½
do, second do	6½	@	7
do, third do	5	@	—
Veal	7	@	—
Mutton	7	@	—
Pork, undrsssd.	6	@	—
do, dressed	8½	@	—

HOPS.			
California, 1870	10	@	12
do 1872	37½	@	45
MISCELLANEOUS.			
Beeswax, per lb	30	@	40
Honey	10	@	12
Los Ang. Honey	15	@	20
Onions	2¾	@	3
Flaxseed	3	@	—
Canary do	5	@	6
Mustard do, wh'ls	1½	@	2
do, brown	2	@	3
Peas	2 00	@	—
Alfalfa	25	@	25
Ky. Blus Grass	50	@	—
Timothy	18	@	—
Italian Rye	35	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	4	@	6
Pecan nuts	16	@	18
Hickory do	10	@	12½
Brazil do	16	@	—
Prince Almonds	16	@	—
Cocanuts, per 100	15 00	@	—
Alm'ds h'rd shell	12	@	15
do, soft	23	@	25
POTATOES.			
Sweet, per lb	1	@	—
Humboldt	—	@	1½
Monterey	90	@	1—
Tomales	75	@	1 00
POULTRY AND GAME.			
Livs Turkeys lb.	16	@	18
Hsns. per dz	7 50	@	8 00
Roostsrs	8 00	@	9 00
Chicksns	5 00	@	6 00
Ducks, tame, doz	11 00	@	13 00
do, Mallard	4 00	@	4 50
Geess, per pair	2 50	@	3 00
Quail, per doz	2 00	@	2 25
Hare, per doz	4 00	@	4 50
Rabbits, per dozl	00	@	1 50
Larks, per doz	75	@	1 00
Doves, per doz	75	@	1 00
Plover, per doz	75	@	1 00
Curlew, per doz	75	@	1 00
Teal, per doz	2 00	@	2 50
Snipe, Eng., doz	50	@	2 00
do, small, doz	75	@	1 00
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	12	@	13½
Eastern do	11	@	12
do sugared	13	@	14
Cal. Hams	13	@	14
Eastern do	16	@	17
Cal. Smoked Beef	11	@	12
WOOL, ETC.			
Choice Northern	22	@	25
Seedy	18	@	22
Burry	12	@	18
Oregon	34½	@	40
Hides, dry	19	@	20
do grsen	8	@	9
Tallow	8	@	9

FRUIT MARKET.

From Los Angeles thars arrived this wssk 75,000 oranges also some from the north. Appiss are rather scsree. Esting pears ars also scarce. One man shipped 1,500 hoxes California raisins, of 25 pounds each, to the city this week.

FRUIT MARKET.			
Mex, Or. per 1000	—	@	—
Cal. do	50	@	60
Limes, per M	25	@	35
An'nLsmons, bxl2	—	@	15
Messine do, bx	15 00	@	—
Bananas, per bunch	3	@	4
Pinsapples, per dz	7 50	@	—
Apples, eat'g, bx	1 25	@	1 75
" Cooking	1 00	@	1 50
Pears, Eating	2 50	@	3 00
" Cooking	1 00	@	1 50
Pomegran's, per 100	—	@	nons
Grapss, Mie-ion	—	@	none
Ross of Psru	—	@	—
Blk Hamburg	—	@	—
Black Princs	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wins Graoes	—	@	—
DRIED FRUIT.			
Apples, per lb	7	@	9

Pears, per lb	6	@	8
Peaches, per lb	8	@	10
Apricots, per lb	—	@	—
Plums, per lb	5	@	8
Pitted, do, per lb	18	@	30
Raisins, per lb	8	@	10
Black Figs, per lb	8	@	12½
White, do	15	@	18
VEGETABLES.			
Cabbage, per dz	50	@	65
Garlic, per lb	5	@	—
Green Peas	12½	@	15
Grsen Corn per doz	—	@	—
Marrowtat Squash per ton	7 50	@	10
Artichokes, per lb	—	@	—
Tomatoss, L. A.	12½	@	15
String Beans, per lb	—	@	—
Lima Beans	—	@	8
Peppers dry	18	@	25
Okra	35	@	40

GENERAL MERCHANDISE.

BAGS.			
Eng, stand. Wh't	15½	@	—
Flour Sacks ½s	16½	@	—
" ¼s	8½	@	9¼
Stand. Gunniss	17½	@	—
" Wool Sacks	65	@	70
" Barley do	17	@	—
Hessian 40-in gds	—	@	12½
COFFEE.			
Costa Rica per lb	18	@	19
Guatemala	17	@	18
Java	22	@	—
Manilla	16	@	17
Rio	—	@	—
Ground in es	22½	@	25
Chicory	10	@	—
FISH.			
Pac. Dry Cod, new hundles, per lb	7	@	7½
Salmon in bbls	8 00	@	—
do ½ bbls	5 00	@	—
do 2½ lb cans	—	@	—
do 2lb cans	3 50	@	—
do 1lb cans	8 00	@	—
Pick. Cod, bbls	—	@	—
do ½ bbls	5 00	@	—
Png. Sd. Smok'd	—	@	—
Herr'g, bx	—	@	50
Mack'l, No.1, ½bls	—	@	11 00
" Extra	—	@	12 00
" in kits	2 25	@	3 25
" mess	—	@	3 50
" ex. mess	—	@	5 00
NAILS.			
Assorted size	5½	@	8 —
PAINTS.			
Stand. Wh. Lead	—	@	10
Whitening	—	@	2
Ohalk	—	@	1
Paris White	—	@	2½
Ochre	—	@	2½
Vsnetian Red	—	@	2¾
Red Lead	—	@	10
Litharge	—	@	10
RICE.			
China No. 1, per lb	6¼	@	7
do 2, do.	5¼	@	5¾
Japan	6	@	7
Patna	7	@	7½
Hawaiian	8½	@	9
OILS.			
Pacifio Glne Co. Neat F't No. 1	10 00	@	1 20
Pnre	1 20	@	—
Cocoa Nut	60	@	—
Olivo Pigguiol	—	@	—
do Foresl	—	@	—
Palm	—	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in os	75½	@	—
Sperm, crude	1 20	@	—
do bleached	1 85	@	—
Coast Whales	40	@	—
Polar, crude	46	@	—
Lard	95	@	—
Coal, refined Pet	40	@	—
Olephine	42½	@	—
Devoe's Brit't	42	@	44
Long Island	42½	@	—
Eureka	42½	@	—
Downer Kerosse'e	50	@	—
Gas Light Oil	42½	@	—
TOBACCO.—Jobbing.			
ight Navys	55	@	60
Da k do	50	@	—
D vaif Twist	60	@	67½
12 inch do	60	@	67½
Light Pressed	60	@	67½
Hard do	55	@	65

Conn. Wrap'r	49	@	50
Penn. Wrapper	27½	@	35
Ohio do	20	@	25
Virgi'a Smok'g	50	@	1 50
Fins et chs'g, gr.	8 25	@	9 00
Fine cut chewing, bue'ts	70	@	85
Banner fine cut	9 00	@	25
Enrska Cala	8 00	@	9 50
COAL—Johbing.			
Australian	15 00	@	—
Coseé Bel. Bay	15 00	@	—
Seattle	16 00	@	—
Cumberl'd, eks	25 00	@	—
do bulk	22 00	@	—
Chile	—	@	—
Lehigh	22 00	@	—
Liverpool	12 00	@	—
West Hartley	16 00	@	—
Scotch	15 00	@	—
Scranton	18 00	@	—
Vancouver's Isl	14 00	@	—
Charcoal, per bk	1 00	@	—
CANNED GOODS.			
Ass'ted Table Pie Fruits, in 2½ lb cans	3 —	@	4 —
Jame & Jellies	4 —	@	— —
Pickles	2 50	@	5 —
SOAP.			
Castile, per lb	12½	@	13
Local brands	6	@	7
SPICES.			
Allspice, per lb	17	@	—
Cloves	23	@	—
Cassia	30	@	—
Nutmeg	97½	@	—
Whole Pepper	20	@	—
Ground Allspice	—	@	19½
do Cassia	35	@	22
do Cloves	22	@	45
do Mustard	25	@	25
do Ginger	22½	@	27
do Pepper	22½	@	—
do Mace	1 20	@	1 —
SUGAR, ETC.			
Cal. Cnbe per lb	—	@	11¼
Cirele A crushed	—	@	11¼
do granulated	—	@	11
Golden O	—	@	9½
do Extra	10	@	10
Hawaiian	20	@	22½
Cal. Syrup in bls	32½	@	—
do in ½ bls	35	@	—
do in kegs	40	@	—
SALT.			
Cal. Bav, per ton	6 50	@	15 00
Carmen Island	14 00	@	15 60
Liverpool fine	24	@	—
do coarse	19 00	@	20 00
TEA.			
Oolong, Canton	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	78
do Moyune	65	@	50½
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, ½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

LUMBER MARKET.

CARGO PRICES REDWOOD.

Rough, per M	$20	00	
Rough refuse, per M	16	00	
Rough clear, per M	32	50	
Rough clsar refuse, M	22	50	
Rnstic, per M	35	00	
Rustic, refuss, per M	24	00	
Surfacsd, per M	32	50	
Surfaced refuse, per M	22	50	
Flooring, per M	30	00	
Flooring refuse, per M	20	00	
Beaded flooring, per M	32	50	
Beaded floor, refuse, M	22	50	
Half-inch Siding M	22	50	
Half-inch siding, ref. M	16	00	
Half-inch, Surfaced, M	25	00	
Half inch Surf. ref. M	18	00	
Half inch Battens, M	22	50	
Pickets, rough, per M	14	00	
Picksts, rough, p'ntd	16	00	
Picksts, fancy, p'ntd	22	50	
Shingles, per M	3	00	

PUGET SOUND PINE—Retail Price.

Rough, per M	$25	00	
Flooring and Step, per M	37	50	
Flooring, narrow, per M	40	00	
Flooring, 2d quality M	30	00	
Laths, per M	3	50	
Furring, per lineal ft	1c		
Rough, per M	$25	00	
Rough rsluse, per M	20	00	
REDWOOD—Retail Price.			
Rough Pickets, per M	18	00	
Rough Pickets, p'd, M	20	00	
Fancy Pickets, per M	30	00	
Siding, per M	27	50	
Tongued and Grooved, surfaced, per M	40	00	
Do do refuse, per M	27	50	
Half-inch surfaced, M	40	00	
Rustic, per M	42	50	
Battens, per lineal foot	1c		
Shingles, per M	3	50	

San Francisco Retail Market Rates.

WEDNESNAY NOON, Jan. 29, 1873

FRUITS, VEGETABLES, ETC.

There is a plentiful supply of nearly all kinds of vegetables and fruits, of which we give quotations. Some of the finest oranges of the season have come from Gen. Vallejo's place at Sonoma. There are no green peas at present in the market. There has been no mushrooms for the last two days.

Apples, per lb	5	@	8	Carrots, per doz	20	@	25
Pears, per lb	5	@	12½	Celery, per doz	75	@	—
Grapes	6	@	25	Cucumbers,	—	@	—
Apricots, lb	—	@	—	Tomatoes, per lb	25	@	—
PineApples, each	50	@	75	Green Peas	15	@	—
Bananas, per doz	75	@	—	String Beans	—	@	—
Canteleups	—	@	—	Cress, per doz bun	20	@	25
Watermelons	—	@	—	Dried Herbs, lb	37½	@	50
Cal. Walnnts, lb	15	@	20	Garlic	8	@	10
Cranbsrriss, per g	—	@	1 00	Grssn Corn, doz	—	@	—
Strswbsrries, lb	—	@	—	Lettncs, per doz	25	@	50
Raspberries, lb	—	@	—	Mushrooms, per lb	25	@	50
Goosebsrriss	—	@	—	Horssradish, per lb	20	@	—
Chsrriss, per lb	—	@	—	Okra, drisd, per lb	50	@	—
Oranges, per doz	75	@	1 25	do fresh, per lb	—	@	—
Limes, per doz	35	@	50	Pumpkins, per lb	2	@	3
Figs, frssh Cal.	12½	@	20	Parsnips, per doz	—	@	25
Figs, Smyrna, lb	25	@	50	Parsley	20	@	25
Asparagus, lb	40	@	50	Pickles, per gal	50	@	75
Artichokes, doz.	75	@	1 50	Radishes, doz	20	@	25
Brussl's sprts,	8	@	10	Summer Squash	—	@	—
Beets, per doz	20	@	—	Marrowfat, do.	3	@	5
Potatoss, New per lb	6	@	8	Huhhard, do	3	@	5
Potatoes, swest,	2	@	3	Dry Lima, shl	—	@	10
Broccoli, per pc	10	@	25	Spinags, per bskt	25	@	50
Cauliflowsr, per	10	@	15	Salsify, per bunch	8	@	10
Cabbags, per doz	75	@	1 00	Turnips, per doz	20	@	25

POULTRY, GAME, FISH, MEATS, ETC.

The retail market in poultry has not been over stocked ths past week, owing o the large purchases made by ths Chinese for their New Year; but ths prevailing high prices are bringing great quantities into the market, which will be again flooded. The market is fairly supplied with all kinds of game. Fish ars getting scarce. There ars few new smoked salmon in the market to-day, but thsrs will be a moderate supply next week. Thers are no rock cod in ths market; neithsr sre thers any halibut. Large smelts and prawns are scarce.

Chickens, apiscs	75	@	1 00	Whittaksr's	20	@	23
Turkeys, per lb	25	@	—	Johnson's Or	20	@	22½
Mal d&Canv'sBk	50	@	—	Flonnder, per lb	30	@	—
Tame, do	1 25	@	1 50	Salmon, per lb	18	@	—
Tsal, per doz	2 50	@	—	Smoksd, nsw,	25	@	30
Geess, wild, pair	1 00	@	1 50	Pickled, per lb	6	@	8
Tams, per pair	4 00	@	—	Rock Cod, per lb	—	@	—
Snipe, per doz	2 50	@	3 00	Cod Fish, dry, lb	—	@	12½
Quails, per doz	2 50	@	—	Perch, s water, lb	12½	@	—
Pigsons, dom. doz	50	@	—	Fresh water, lb	15	@	18
Wild, do	—	@	2 50	Lake Big. Trout	30	@	—
Harss, each	—	@	50	Smelts, large per lb	18	@	—
Rabbits, tame	50	@	62½	Small do	12½	@	—
Wild, do, per dz	—	@	2 00	Silver Smelts	—	@	—
Best, tsnd, per lb	20	@	—	Soles, per lb	37½	@	—
Cornsd, per lb	8	@	10	Herring, fresh	4	@	5
Smoksd, per lb	15	@	—	Sm'kd, per 100	—	@	1 00
Pork, rib, etc., lb	15	@	—	Tomcod, per lb	15	@	—
Chops, do, per lb	15	@	—	Terrapin, per doz	—	@	7 00
Veal, per lb	8	@	10	Mackerel, p'k, sa	—	@	12½
Outlst, do	20	@	—	Fresh, do lb	—	@	—
Mutton chops,	8	@	15	Ssa Bass, per lb	—	@	—
Leg, per lb	—	@	12½	Halibut	—	@	—
Lamb, per lb	18	@	—	Sturgeon, per lb	4	@	5
Tongues, hssf, ea	6½	@	1 00	Oysters, per 100	1 00	@	—
Tongnes, pig, sa	75	@	—	Chesp. per doz	50	@	62½
Bacon, Cal., per lb	—	@	13	Turbot	50	@	—
Orsgon, do	18	@	—	Crabs per doz	1 00	@	—
Hams, Cal., per lb	18	@	—	Soft Shsll	37½	@	—
Hams, Cross' s o	20	@	23	Shrimps	10	@	12½
Choice D'field	20	@	23	Prawns	—	@	1 00
				Sardines	10	@	—

MISCELLANEOUS.

Correeted weekly by B. SBARBORO & BRO., Grossrs, No. 531 Washington street, San Francisco.

Butter, Cal. pr lb	40	@	50	Syrup, S.F. Gol'n.	40	@	45
Cheese, Cal., lb	17	@	23	Dried Apples	7½	@	10
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	9	@	10
Flonr, ex. fam. bl	6 00	@	6 25	Dr'd Figs, Cal	9	@	10
Corn Meal, lb	3	@	3½	Dr'd Peaches	8	@	10
Sugar, wh. crsh'd	12	@	13	Oils, Kerosene	—	@	50
do lt. brown, lb	9	@	11½	Eggs	—	@	70
Coffee, Sbarboro's family gr'nd, lb			27½	Wines, Old Port	3 50	@	5 00
Coffes, green, lb	18	@	22	do Fr. Claret	1 00	@	1 25
Tea, fine blk,	50, 65, 75	@	1 00	do Cal. dz. bot	3 00	@	4 50
Tea, finst Jap,	55, 75, 90	@	1 00	Whisky, O. B, gal	3 50	@	5 00
Candles, Admant'cl	17	@	25	Fr. Brandy	4 00	@	10 00
Soap, Cal., lb	—	@	10	Rice, lb	—	@	12½
Can doOysters, dz.	2 50	@	3 75	Yeast Powders, dz.	1 50	@	2 00

* Per lb. † Per dozen. ‡ Per gallon.

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, Jan. 29, 1873.

IRON.—			
Scotch Pig Iron, per ton	$50 00	@	55 00
White Pig, per ton	50 00	@	55 00
Refined Bar, bsd assortmsnt, per lb	— —	@	— 06
Refined Bar, good assortment, per lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horss Shoes	9 00	@	—
Nail Rod	— 10½	@	—
Norway Iron	— 9		
Rolled Iron	— —		
Other Irons for Blacksmiths, Minsrs, etc.	— 5½	@	— 6½
COPPER.—			
Brazier's	— 45	@	— 48
Copper Tin'd	— 50	@	— —
O. Nle 's Pat	— 55	@	— —
Sheathing, per lb	— —	@	— 45
Sheathing, Yellow	— 32	@	— 35
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 28	@	— 30
Composition Bolts	— 28	@	— 30
TIN PLATES.—			
Plates, Charcoal, IX per box	17 00	@	— —
Plates, 1 C Charcoal	15 00	@	— —
Roofing Plates	14 00	@	— —
Banca Tin, Slabs, per lb	— 45	@	— —
STEEL.—English Cast, per lb	— 20	@	— 22
Drill	— 20	@	— —
Flat Bar	— 20	@	— —
Plough Points	— 16	@	— 17
Rnssia (for monld boards)	— 12½	@	— 15
ZINC.	— 10	@	— 11¾
Zino, Sheet	— —	@	— 12½
NAILS—Assorted sizes	— 5½	@	— 8

WM. SHEW'S PHOTOGRAPH GALLERY, the oldest in the State, and for a long time located on Montgomery street, is now on Kearuy, at No. 115, and has no connection with any other. All kinds of Photographs taken in the very best style for about one-half the prices charged on Montgomery street.

Prices of California Wheat in Liverpool—The Telegraph and the Mail Compared.

1872.	TELEGRAPH.*	MAIL †	DIFF. BET. TEL. AND MAIL.
Nov. 22	3.01, 3.05 and 3.28‡	3 03, 3.32	.13½ and .03¾
26	3.03, 3.07	2.04, 3.32	12½
29	3.03 3 22‡	3.01, 3.30	.03
Dec. 3	2.91, 3.17‡	2 99, 3.23	.07
6	2.91, 3.01	2.97, 3.19	.12
10	2.91, 3.01	2.76, 3.03	.04
13	Not given.	2.97, 3.05	
17	2 91, 3.01	2 99, 3 21	.14
20	2.95, 3.03 and 3.17‡	2.99, 3.21	.11 and .04¾

*—The quotations given by tslegraph to the Associated Press are mainly thoee of whst ars called by this agent of said Associated Press] Aversgs California Wheat. In a few instances Club are given. These ws have uoted hy the mark ‡.

†—Thess are quotations of California wheat in Liverpool, taksn from ths "Mark Lane Express."

‡—Telegraphic quotations of Club wheat.

—These differsnces are those between ths mean prlee of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cassa the "Mark Lane Express" shows higher prices than the telegraph.

*—This is ths difference between the mean of ths lowest prices of what is styled California Avsrags and California Club in the telegraph reports and thst of ths figures given in the "Mark Lans Express" for the same datss.

Leather Market Report.

[Reported for ths Press by Dolliver & Co.]

SAN FRANCISCO, Wednesday, Jan. 29, 1873.

Ths prics of sole

Wool Report of E. Grisar & Co. for the Year 1872.

WOOL PRODUCTIONS.

Receipts at San Francisco—

	BAGS.		BAGS.
January	140	July	2,571
February	201	August	1,734
March	943	September	6,132
April	10,952	October	13.022
May	21,212	November	6,440
June	5,544	December	2,684
			71,575

Of which there was Spring	44.140 bags.	13,550,980 lbs.
Of which there was Fall	27,437 bags.	8,368,488 lbs.
	71,575 bags	21,919,468 lbs.
Shipped from the country		1,186,000 lbs.
" Pulled		1,152,000 lbs.
Total Prodnction of California		23,255,468 lbs.
Received from Oregon	5,353 bags.	1,175,600 lbs.
Foreign	9,253 bales.	3,541,415 lbs.
		28,972,483 lbs.
On hand December 31st, 1871		750,000 lbs.
Grand Total		29,722,483 lbs.

COMPARATIVE RECEIPTS AT SAN FRANCISCO.

	1872.	1871.	1870.	1869.
Spring	13,550,980	13.134.680	12,847,760	8,959,545
Fall	8,368.488	9,052,508	6.624.900	4,718,175
	21,919,468	22,187,188	19.472,660	13,677,720
Oregon	1,175,600	921,000	1.403,970	1,039.460
	23,095.068	23.108,188	20,876,690	14,717,180

WOOL EXPORT.

Per rail from San Francisco	13,781.107 lbs.
Per steamers	3,247,281 lbs.
Per sail	361,592 lbs.
Per rail from the country	1,186,000 lbs.
	24,578,980 lbs.
Bought by local factories	2,575,000 lbs.
On hand California	2,000,000 lbs.
On hand Foreign	500,000 lbs.
	29,653,980 lbs.
Value of Export	$7,750 000

GRADES.

The quality of the wools graded during the past three years has been nearly uniform. About two-thirds of the receipts exported are A1, and the remainder A2 and B. The amount of the lower qualities grown is probably larger than these figures show, as the wools taken by the local factories usually run coarse in grade. The proportion of A P and S is about one per cent. each.

The market here for California wools during the past year, has been in complete contrast to its predecessor. From the opening to the close of the spring season of 1871 wools met with ready sale, and a constant advance in prices took place, caused by the presence of an unexampled number of Eastern buyers. In 1872 the decline from the opening rates was uninterrupted, and finally holders were compelled to forward their wools to the East in order to dispose of them. This state of affairs was caused by the unusually high prices which ruled here.

Influenced by the continued advance in the price of wool, which culminated in the Eastern markets in February, and by the scarcity reported as existing throughout the world, local buyers contracted for most of the Spring clip before it reached this market, and in many cases even before it was shorn.

The condition and reputation of the various clips in former seasons, generally served as a guide in the estimate of value. Results have shown this basis to be unreliable and that the only safety in purchasing is to first examine the wools, as the product of the same flocks, which have been cared for in the same way, vary widely from year to year.

The fact that a large portion of the clip had been sold before being shorn and the continuance of cool weather later than usual caused wool to come forward slowly. Receipts were small until after the middle of April, being several weeks later than in the preceding year. From this time, however, stocks constantly accumulated, as Eastern buyers declined to purchase at prices asked, and local operators had purchased largely in the country. Finding the market here unsatisfactory, holders began to forward their stocks to the Eastern markets, and this movement continued until most of the clip had been exported.

The long continued depression which had existed here and in the East, caused the opening rates for Fall wool to be so comparatively low as to discourage farmers from shearing, except in localities where it was necessary to preserve the flocks from disease. It was therefore generally supposed that the Fall clip would not exceed 5,000,000 pounds. The condition and staple proving to be better than was expected, and for this reason, prices having advanced, shearing has been general, and receipts thus far amount to 8,300,000 pounds, most of which has been already marketed.

CONDITION.

The high prices ruling in the fall of 1871, caused an almost universal shearing at that time; on this account, much of the Spring wool this year was short stapled. The condition, as shown by the average weight of the fleeces, was better than that of the preceding year, especially in some of the Northern counties. The southern wools showed no improvement in this respect, but the staple was fully as good as the average of 1871. The superiority of the Fall wool of this season over that of last was quite marked. The proportion of earthy wool was smaller, and the staple and condition were better.

We have to note, however, a wider spread of bur and seed, the latter especially having appeared in sections formerly free from it. The sheep in being driven from one place to another during the summer for better feed, carry the bur with them, and its spread afterwards is rapid. It seems probable that in a few years, little if any California wool can be found absolutely free of bur or some kind of seed.

Oregon wools have shown a slight improvement in the quantity of wool suitable for combing or delaine purposes, but are much inferior to the production of five or six years since. Some of the California wools from the extreme Northern counties are lighter in condition and better grown than much of that received from Oregon.

The Nevada wools received here have not met with favor, and clips of equal length grown in this State, have sold more freely and at higher rates. The staple was of good length and strength, but the shrinkage, owing to the sand they contained, was much more than was expected.

FRAUDS IN WOOL.

In our previous reports we have called attention to the rejections which we have been obliged to make in grading. During the spring, rejections of dirt, unmerchantable and wet wool packed within the fleeces, were greater than usual, especially in those cases where the price at which the wool was sold was much below the market rate at time of delivery. In this connection an extract from the decision of the Supreme Court of this State may be found interesting by wool growers.

In this case the wool had been shorn in a muddy corral and during part of the time in a rain. The wet wool and dirt were rolled inside the fleeces, which were packed in bags in the usual manner. The commission house who received it, states that its condition in these respects could not have been detected without opening the bales.

The buyer examined the wool near the surface, where it looked well, but remarked that the bales appeared as if they had been in the rain, and their unusual weight seemed to imply that the wool was wet; and he inquired if the wool was the same quality throughout; the seller replied that it was so far as he knew, and the bales were heavy because they were so well packed.

The district judge before whom the case was originally tried instructed the jury, that as the buyer had the privilege of examining every bale it was his duty to ascertain the conditiou and quality of the wool before purchasing. The jury gave verdict in favor of the seller.

This decision was reversed in the Supreme Court. The Justice there ruling that "the use of any device by the vendor to induce the buyer to omit enquiry or examination into the defect of the thing sold is as much a fraud as an active concealment by the vendor himself." Law, equity and commercial policy agree that the vendor must not make any false statements about the quality of his goods for the purpose of preventing the purchaser from making an investigation.

The increased price of wool has also resulted in there being greater discrimination against hucks and heavy fleeces. As an allowance is made on such wool to buyers in the Eastern markets it seems only just that an equal deduction should be made to purchasers here. In former years the custom has been in grading to accept what seemed to be a reasonable proportion of bucks to the flock, and to reject any excess as well as any dirt or dung not attached to the fleeces.

We exercise due care in examination, but in grading it is impossible to detect slight imperfections without opening the fleece, and graders cannot be held responsible for any such matter foreign to the wool which may be concealed in or attached to the fleece. It seems fitting for the protection of the buyer, that some rule should be established regarding those wools having the skirts loaded with dung, but forming part of the fleece. The skirts are really unmerchantable, but custom does not allow the graders to reject them for the account of the seller, while if detached from the fleece they would be rejected for his account.

During the prevailing excitement of last spring, little discrimination in buying wools was exercised, and an inadequate difference in price was made between wools put up in good condition for market and those carlessly prepared. The course of the market afterwards showed that the decline in value was less on the former description, and that they were more readily saleable, while short stapled, heavy conditioned kinds were entirely neglected, and, for a short time unsaleable. The cost of the wool ready for manufacture governs the price in the natural state, and therefore closer attention is paid to condition as the price advances.

BREEDING.

Wools of medium grade, such as are obtained from crosses with long coarse wooled sheep have been most in demand. The climate and soil of California are not such as to admit of profitable competition with Australia and South America in growing fine wools, and under the present tariff, medium descriptions can not be imported largely to compete with domestic production. The constitution of the long wooled sheep, is such as to unfit it to run in large bands, but we think that every farmer would find a small number profitable

In Great Britain, notwithstanding the high price of land, nearly every farmer has a few sheep, and in 1870 her production was 760,000,000 pounds. This shows that California can always raise wool with profit, even if land increases in value. Sheep owners will need to improve their breeds, and at the same time their pastures, as large tracts now supporting one sheep per acre can be made to feed thirty. The demand for long wools for combing and delaine purposes has increased faster than the production, and such wools are more ready of sale and more uniform in value than the clothing varieties.

As appears by statement herewith the greater part of the wool forwarded has gone by rail. The shipments by steamer are chiefly fall wool, the fear of a snow blockade on the railroad having deterred holders from forwarding overland.

The large receipts of Colonial wool at this port are a new feature in the wool business of this city. The greater part was in transit to Eastern markets, the remainder having been taken for consumption by local mills.

Prices of A1 California Wool for the Past Eight Years in New York and San Francisco.

MONTH.	SPRING. 1865. N. Y.	SPRING. 1865. S. F.	FALL. 1865. N. Y.	FALL. 1865. S. F.	SPRING. 1866. N. Y.	SPRING. 1866. S. F.	FALL. 1866. N. Y.	FALL. 1866. S. F.
Jan.	Nom.	27 @29	Nom.†	Nom.	Nom.	Nom.	Nom.	Nom.
February	Nom.	21 @22	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
March	Nom.	18 @23	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
April	18 @21	19 @23	Nom.	Nom.†	Nom.	Nom.	Nom.	Nom.
May	18 @21	20 @3	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
June	18 @20	23½@25	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
July	18 @20	25 @30	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
August	17 @18	26 @28	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
Sept.	Nom.	26 @28	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
Oct.	Nom.	26 @28	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
Nov.	Nom.	27 @28	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
Dec.	Nom.	27 @30	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.

MONTH.	SPRING. 1867. N. Y.	SPRING. 1867. S. F.	FALL. 1867. N. Y.	FALL. 1867. S. F.	SPRING. 1868. N. Y.	SPRING. 1868. S. F.	FALL. 1868. N. Y.	FALL. 1868. S. F.
Jan.	21 @24	30 @32½	28 @30	25 @27	Nom.	Nom.	16 @18	15 @16
February	23 @24	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
March	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
April	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
May	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
June	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
July	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
August	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
Sept.	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
Oct.	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
Nov.	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16
Dec.	23 @25	29 @32	28 @30	25 @27	Nom.	Nom.	17 @18	15 @16

MONTH.	SPRING. 1869. N. Y.	SPRING. 1869. S. F.	FALL. 1869. N. Y.	FALL. 1869. S. F.	SPRING. 1870. N. Y.	SPRING. 1870. S. F.	FALL. 1870. N. Y.	FALL. 1870. S. F.
Jan.	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
February	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
March	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
April	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
May	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
June	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
July	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
August	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
Sept.	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
Oct.	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
Nov.	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.
Dec.	15½@17	22 @25	21 @22	15 @16	Nom.	Nom.	Nom.	Nom.

MONTH.	SPRING. 1871. N. Y.	SPRING. 1871. S. F.	FALL. 1871. N. Y.	FALL. 1871. S. F.	SPRING. 1872. N. Y.	SPRING. 1872. S. F.	FALL. 1872. N. Y.	FALL. 1872. S. F.
Jan.	21 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
February	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
March	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
April	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
May	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
June	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
July	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
August	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
Sept.	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
Oct.	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
Nov.	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17
Dec.	23 @24	30 @32	30 @32	22 @23	Nom.	Nom.	18 @19	16 @17

†—Nominal.

Table of Fluctuations in Value of Principal English Colonial Wools in London, during the last Ten Years (in pence.) Compiled by Mr. Helmuth Schwartze, Wool Broker, London.

	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.
Sydney ave. washed	20½	20½	20½	20½	19½	17	15½	16½	14½	15½
Port Phillip, good	21	21½	22½	20½	20	17	16	16½	15	15½
Adelaide, average	21	22	22	20½	20	17	16	16½	15	15½
V. D. Land, av. washed	19½	20½	20	19½	19	16½	15	15½	14½	15
N. Zealand do	18½	20	20	19½	19	16½	15	15½	14½	15
Cape	16½	17½	18½	16½	17½	15½	13½	14½	13½	14½
June.	20½	21½	22½	20½	20½	17½	15½	16½	14½	15½
Dec.	21½	22½	24	22	21	18	16	17	15	16
June.	21	22	24	22	21	18	16	17	15	16
Dec.	21	22

Domestic Economy

Carpet Mats and Rugs.

Girls, you all want to know how to help adorn home; and a carpet be it ever so common, saves mother and yourselves many a hard job of rubbing and scrubbing. So we print a method of making new carpets from old woolen ones. No matter how faded, they may be turned to good account, by raveling out the carpet, and as you do so winding it in balls. When this is done, have ready some scarlet, blue or green yarn, which if the colors of the carpet be very dull, will help to enliven them. Next take a long stick, something like a yard stick, and wrap the raveled yarn tightly around it, interspersing it with a little red and green all the way through; when the stick is full begin to sew it along one edge, so as to secure it, and then cut it open on the other. Now do another and another stickful in the same way, until the carpet yarn is all gone.

A piece of strong crash will answer best as a foundation for the rug we are proposing to make out of this, and, having hemmed it at each end, begin in the middle with a tuft of bright colors, sewing the rest around on the foundation as closely as possible, until the crash is completely covered; it may thus be made as large as required, and can be trimmed to make the tuft even. This will give you a very serviceable door mat or rug, which will wear as long as the old carpet has already done. —*Selected.*

To Roast a Pig.—It should not be more than a month old. It is better a little less, and it should be killed on the morning of the day it is he to cooked. Sprinkle fine salt over it an hour before it is put down to the fire. Cut off the feet at the first joint. Make stuffing enough to fill it very full, of bread-crumbs, moistened with a little milk, a small piece of butter, sweet marjoram, sage, pepper and salt. When placed on the spit, confine the legs in such a manner as to give it a good shape. Rub it all over with butter or sweet-oil, to keep it from plastering. Flour it at first, a little. As soon as it begins to brown, dredge on a very thick covering of flour. Turn the spit every three or four minutes. If the flour falls off, instantly renew it. When it has all become of a dark-brown color, scrape it in a plate and set it aside. Put a piece of butter into the gravy in the roaster, and baste the pig very often till it is done, which it is when the eyes fall out. The feet and liver should be boiled an hour or two, and the gravy from the roaster should be poured into the water in which they were boiled. The liver should be cut or mashed fine, and the feet cut open and returned to the sauce-pan, the brains taken out and added, and the gravy should be thickened with the brown flour reserved in the plate. A pig of a month old will roast in two hours and a half.

Tapioca Cream.—Soak two tablespoonsful of tapioca in just enough water to cover it, all night. The next morning, boil one quart of milk with the soaked tapioca, add two-thirds of a small cup of sugar to it and a little salt. Beat the yolks of three eggs thoroughly, and when the milk has boiled for ten minues, stir them into it, remove it from the fire, and stir rapidly for five minues, so that they will not curdle. Flavor it with vanilla; beat the whites to a stiff froth, and put over the top of the pudding-dish into which you have turned the tapioca; sift sugar over it, and brown for five minutes in the oven; serve it cold. This makes a more delicious dessert than pastry, and can be prepared the day before it is needed.

Griddle Cakes.—Griddle cakes are always much more palatable in winter than in summer, and buckwheat cakes are very desirable at this season, because they are so heating to the blood. Indeed, so much so, that some persons cannot eat them on account of the humor they will send out upon their skins. A handful of wheat flour makes them more harmless. It is an excellent plan to keep a pitcher or a stone jar, into which all bits of bread, potato, rice and hominy can be thrown; and also any stray drops of milk; and when collected to about a pint, strain it through a colander or seive, and mix it into a batter with flour and water or milk; then add a teaspoon of saleratus or soda, and, without the aid of eggs, you can serve very nice cakes.

Astor House Rolls. — Into two quarts of wheat flour put a piece of butter the size of an egg, a little salt, a tablespoonful of white sugar, a pint of milk, previously boiled, and cold, and a half-teacupful of yeast. When the sponge is light, mould for fifteen minutes. Let it rise again, and cut into round cakes, when light, flatten each cake with a rolling-pin; put a bit of butter on top, and fold each on itself. Put in pans to rise, and when light bake in a quick oven. If the edges of the rolls are dipped in melted butter, they will not stick together when baked.

Sweet Potato Balls.—First boil the potatoes; then carefully mash the farinaceous part. Boil in the mean time a pint of milk; put in some lemon-peel, a couple of small lumps of sugar and a little salt. When the milk boils, take it off the fire and add the potatoes, so as to form a paste, or rather, a tolerably thick mush. When cool, make it into balls, cover these with crumbs of bread and yolk of egg; fry to a nice brown color and serve up with sugar strewed over them.

Textile Fibers.

Analytical Glance at Silk Culture

Eds. Rural Press:—The resources of silk culture are immense, and California can, in a few years, create for herself a new revenue as important as that of her mines.

In order to call more closely the attention of proprietors to the subject, I will present them a retrospective and analytical view of the long voyages made for the purpose of procuring eggs of silk worms, which failed in Italy and France.

These two countries, for many years so rich in silk, experienced heavy losses in the diminution of the product. A fatal disease spread from province to province, invaded the two Kingdoms, and diminished the crop, which before exceeded $50,000,000 per year for France, and almost double the amount for Italy.

From the commencement of 1853, the calamity was evaded by the importation of eggs from Macedonia, Broussa, Anatolia and Thessaly. This, for some time, produced happy results, but lasted only for a few years. In 1855, the reproduction failed us again, the disease (called *Otthrophia)* was developed, and appeared also in the Levant. The attention was turned to Spain and Portugal, after to the Canary Isles, but with little success, and the researches of intrepid travelers carried them into countries more difficult.

Several traveled Trans-Caucasc and Persia, others Messopotomia, Asia-Minor and Syria, all the isles of the Archipelago, Greece, Epirus, Servia, and Bulgaria, the Danubian Principalities, Wallachia and Moldavia, the South of Russia, Bessarabia and Podalia, where the silk culture was imported by emigrant tribes from Bulgaria and Moldavia; but the disease penetrated and progressed annually everywhere, rendering after a few years unfruitful all the efforts of the voyagers, and the dangers inflicted by them, often exposing even life itself, to penetrate into inhospitable and barharous countries.

Some were victims to their boldness, among which two of my travelling companions were killed in Cancas s, (at Nouka) in 1861, and myself dangerously wounded; others were taken prisoners in Independent Tartary, (in Bohara) but the researches ceased not. During two consecutive years I traveled with immense difficulty over Central Asia, Turkestan, Kohand and Bohara, meanwhile others penetrated into Cashmere and Indies, and yet others into China, and in 1861, into Japan. Since that period the French and Italian dealers go regularly every year to procure eggs, and have succeeded in exporting 2,500,000 cards eggs of silkworms, that are sold at Yokohama some years at $2 to $3 the card. Thus more than $8,000,000 remain every year in Japan, while, by perseverance, a portion of this sum might be made to remain in, and enrich California.

In my last article, (Progress and Development of Silk Culture in California,) in the Pacific Rural Press (December 28th, 1872,) I took pleasnre in displaying to the State, the result of my investigation into Silk Culture in California.

First of all California resembles Italy much in its products, and climate and even in some counties, Sicily, and surpasses it in the rich fertility of soil, and in rapidity and force of its vegetation.

Among the different groves of mulberries that I have visited, the most of them are in localities unfavorable to a good rearing of worms, with so little nutritive strength in the leaves. On account of the nearness of the trees, or by the agglomeration of the roots, the trees never obtain nutriment enough to secure good results.

I have come to this country for the purpose of putting in operation my theoretical knowledge, and practice acquired in my long voyages dedicated to Silk Culture, after having seen all the systems of propagation in almost all the silk cultivating countries of the world, and watching, step by step, the progress of disease among silkworms in all their phases, and in all climates, and to demonstrate by facts the advantages of the country, heretofore neglected or poorly examined into until the present time, for the want of practical experience among the cultivators.

Thus I repeat, I am perfectly convinced by my last experience and good success in Los Angeles, that the country has all the desired conditions for a successful result in silk culture, and I shall be happy to prove it better this year in Calistoga.

Until the present day, the culture of silk has been lightly treated for the want of practical experience; sufficient care has not been given to the rearing of worms, the localities employed unsuitable, the leaves of the mulberry unsubstantial, groves badly arranged, and an improper choice of trees.

The cultivators who have obtained any good results have not been able to sell their cocoons, for lack of a sufficient quantity to spin in the country.

Thus, when in the country proper propagation is made, and under normal conditions, when the eggs of California shall be well known in Europe, then, indeed, will the attention of Italian and French propagators and merchants be directed to this country. They will come to purchase eggs, and there will be founded in the country establishments for the propagation of silkworms (as was done in Asia) and it will obtain great advantages therefrom all in affording to proprietors a rich compensation for their labor and expenses.

Then will California find another rich source of revenue, the plantations will increase every year, and in a few years it will be able to afford a supply of worms, sufficient to feed the manufactories of the country, and proprietors will find a ready and advantageous sale.

Therefore I will endeavor to give to the country a new impulse in the cultivation of silk, and to prove to proprietors the coming spring, in Calistoga (Napa County) what are the resources of this rich product, in which I hope to be aided by their good will. More Anon.

Cultivation of Jute in California.

Eds. Press:—Upon my application, I received recently from the Commissioners of Agriculture, a limited quantity of jute seed, for distribution in California. I send you by this mail ten packages, being nearly all I have left after sending small lots to friends on whom I had pressed the subject of jute growing while I was in California last fall, and to farmers' clubs in different parts of the State.

I send you also ten copies of Agricultural Report for 1871, containing at page 171 an article on "The Jute Plant" with instructions as to its cultivation.

Observe, however, that though in India the practice is, as stated in the article, to sow the seed broadcast, yet the better mode is to sow in drills, but without having the rows too far apart so as to give too rank a growth to the plant. At least I am so informed by those here best posted on the subject.

Sown in drills, each package sent will suffice, the Commissioner says, for a quarter of an acre.

In the monthly report for the department for November and December, 1872, also sent herewith, you will find another article on jute culture in the United States. It is at page 490, and supplies points of useful information not in the Annual Report for 1871. You might publish it in the Press and send one copy of your paper and one copy of the Report for '71 with each package of the seed, to such persons or clubs as you think most likely by reason of soil, climate and otherwise, to give the experiment the best trial.

[Full extracts from this article were given in our last issue.—Eds. Press.]

As to the general capabilities and advantages of jute growing and manufacture quite a body of statistics is contained in the article in the Report of 1871, already published by you, and in that of the Monthly Report now sent. Perhaps the most striking feature of this new interest is its very great and rapid increase wherever it has gained a foothold. This is strongly shown by the figures in the two articles. The latest figures I have seen for the United States point in the same direction.

For the fiscal year ending June 30th, 1872, the import of raw (that is, dressed) jute was 41,851 tons against 26,450 tons for the year preceeding; an increase of nearly fifty per cent.

Surely, such a gain in the face of a severe duty, is a sign full of encouragement for the experiment in California. A good time for trying it will be the present winter which promises almost, if not quite as well for practical results, as the last.

It must be that jute can be profitably grown, at least in good years, in several large districts of our State, such as the Tulare, San Joaquin and middle and upper Sacramento valleys, and doubtless many others. The only question is, the cost of the labor in harvesting and dressing. I do not think this a serious question in view of the saving of freight from Calcutta and of duties, and of our California facility for using mechanical power. Be this as it may, however, the experiment as to the planting should be tried, and tried thoroughly. The question as to the harvesting and dressing comes afterwards. There is no trouble about the manufacture into gunny cloth and bags, if I can judge from what I saw during a visit of several hours to the jute factory at Oakland last fall, and from what I know of the bag manufacture in San Francisco and elsewhere in California.

With a jute interest and a cotton interest well developed in our State, our agriculture would be profitably diversified. This would be to the best advantage of the farmers, and not less to that of the farm hands, who could then rely upon employment for a much longer period of the year than they can now, when their work depending solely on the grain crop, begins and ends with it.

I have been greatly relieved, and as much rejoiced by the news of bountiful rains throughout the State, "extending" say the despatches "into the dryest districts."

Now let us have cheap transportation and cheap sacks. The greed of man must not always make void the blessings of Providence. The remedy is with the farmers themselves.

Your Friend, E. Casserly.

Washington, Jan. 10th, 1873.

Nursery Notices.

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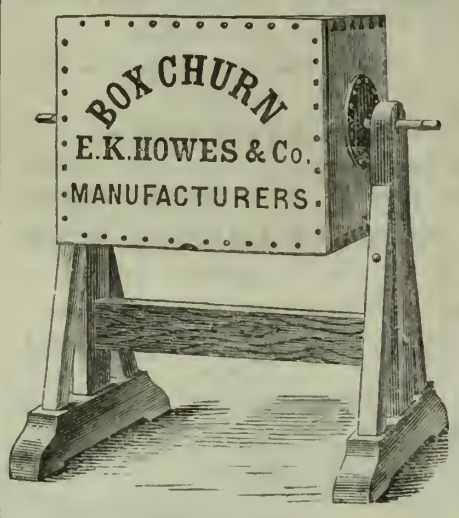
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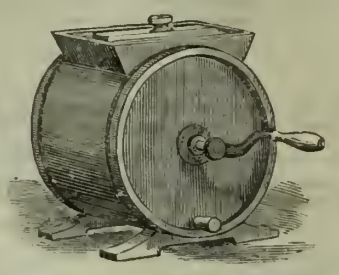
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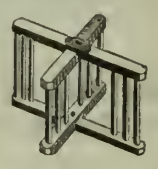
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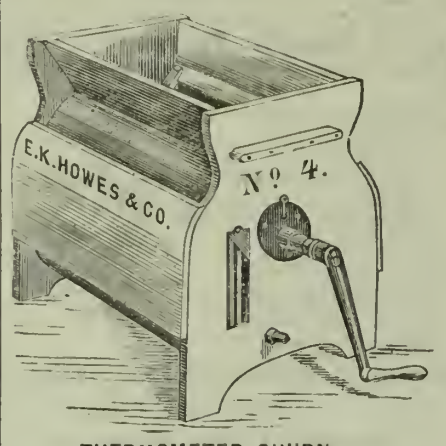


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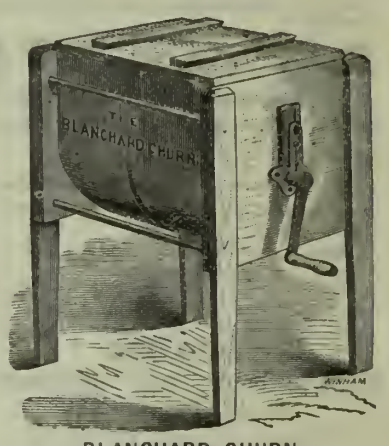


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You want none but the very best of seed, grown from carefully selected seed stock. With the money you have to invest in manure, help and glass, *you know you cannot afford to use any other;* you feel very anxious about it; TRY MINE. Catalogues free to all.

N. B.—Call in the Spring and see what onions, cabbages, etc., I set out to grow seed from.

JAMES J. H. GREGORY,
fe1-3t Marblehead, Mass.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, FEBRUARY 8, 1873. [Number 6.

The Commercial Aspect of the Year.

Looked at from a commercial point of view, the year just closed will ever be a memorable one in the history of the city and Coast. During it our imports from foreign countries have increased nearly thirty per cent., while our exports have increased in nearly the same ratio. We have sent Wheat enough to Great Britain to feed two millions of her people. A market has been opened in New York for our Butter and Canned Goods; our Salmon is a staple article in the East; our Wines have begun to compete there with those of Europe, and we are sending Sugar to St. Louis and Chicago—thus paving the way for supplying half the people of the States with that indispensable commodity. The year has also witnessed the commencement of a revolution in commercial legislation, in which

The Repeal of the Tea and Coffee Duties

Has been the first step. That repeal has not, as was anticipated, led to a fall in the price of these articles, but it has removed many restrictions to trade, and it will especially benefit the merchants of this city, by leaving them an open field to compete with the merchants and traders of the East. Our trade in the staples of Tea, Coffee and Sugar with the great interior centers,—the commercial capitals of the Valley of the Mississippi,—has hardly yet begun. The falling off in

Our Tea Trade

With the East is only temporary, and, perhaps, after all may work more good than evil to the commercial interests of the city, inasmuch as when we begin to supply the void in the trade of last year, much of the tea business will be done directly through San Francisco houses, instead of having that article shipped through unbroken to the East. The death of the last king of

The Sandwich Islands

Has opened up anew the question of their annexation to the United States, and the election of the new King is only a preliminary step in that direction. It is not, however, likely that annexation will be effected for yet another decade, but is sure eventually to come, when these Islands, filled with an American population, shall themselves seek admission into the Union. Meanwhile it is of the first importance both to their progress and our interests, that a system of commercial reciprocity should be established between us. The Islands possess an area nearly equal to that of the Commonwealth of Massachusetts and can supply Sugar, Rice and Coffee to the United States. The question of

Postal Telegraphy

Is one which is now absorbing the universal attention of the merchants of the United States, and of none more than those of this city and Coast, who to a man favor it. The excitement on the subject has been intensified by the mysterious treatment by the Western Union Line of the *Alta California*, the oldest newspaper on the Coast. There can be very little doubt that the *Alta's* advocacy of the measure has been the cause of its misfortunes. This is the first step in the war in favor of the present system, which will soon be transferred to the halls of Congress. The Harbor Frauds have given irresistible force to the cry for

A Free Port,

And we may expect to find that the Legislature in its next session will see fit to allow the people of San Francisco to take charge of the management of their own wharves, and of their own harbor. The Goat Island matter has been resuscitated again, but, inasmuch, as the Central Pacific Company is spending millions of dollars in building offices, depots, etc., in San Francisco, we think that they themselves have little hope of obtaining the Island. The great Wheat crop of last year, and the prospectively great one of this, holds out to

Our Country Merchants,

Hopes of a most prosperous year, and of a largely increased trade, particularly in Agricultural implements, Hardware, Iron and Steel, Dry Goods, Clothing, etc. In fact, the past year, particularly the latter half of it, has been one of pretty general prosperity, and the new one promises even better.

Wheat Bags.

One of the greatest questions of the day to our farmers is that of wheat bags, so important that during a year like that just closed, a difference in cost compared with a previous year, of five cents per bag, would have made a difference of six hundred thousand dollars to be taken from or put into their pockets according as the article rose or fell. Last year, however, the margin between the highest and lowest prices was as much as seven cents, or a difference on the whole quantity used of eight hundred and forty thousand dollars. Considering the interest taken in this question by our readers, we have been at some pains to obtain special information regarding the Bag trade. We begin by giving a table of



PECULIARITY IN THE LEAVES OF PEACHES.

Prices

For the past year. The present selling price for hand sewed English Burlaps is 15½ cents with a light demand, as is usual at this season. This is about half a cent advance on the price prevailing during the latter part of January last year, which was then 15 cents, but it is three cents advance on the price prevalent at the beginning of that month, and is from three and a half to five cents higher than the prices prevailing in January, 1872, which were from 10½ to 12 cents, and is five and a half cents higher than the price ruling in January 1870, when on the 21st inst., 100,000 hand sewed wheat bags were sold for 10 cents. The following table shows the prices for the past year and for years 1870, 1871 and 1872, during the months when the principal demand is felt:

Prices of English Wheat Bags from February to October for the Years 1870, 1871 and 1872:

MONTH.	YEAR. 1870.	YEAR. 1871.	YEAR. 1872.
March	12¼	11@15	16½@17
April	12¾@13¼	13@14	18
May	13¼@14	13@14	17½@18
June	13¼	15@16	18
July	13@15	12@14	16½@17¾
August	12½@13	12@13¾	18@19
September	10@13	12⅝@12¾	18@19

In March the demand usually begins and jobbers commence to lay in a stock for their customers. Then the price runs up a couple of cents over what it has been during January and February. The culminating point is generally reached in June and July, when farmers are able to estimate their requirements, and when everything, old or new that can be pressed into service, becomes valuable. This year, however, the highest prices were reached in August and September, as neither farmers nor dealers were at all prepared for the extraordinary demand, and the market being bare, all afloat were bought up long prior to arrival.

During the Season

The highest price reached in 1870, was fifteen cents in July, in 1871, sixteen cents in June, and in 1872, nineteen cents in August and September. The lowest price from February to October was in 1870, ten cents in September, in 1871, eleven cents in March, and in 1872, sixteen and a half cents in March. The prices during the months of 1872 not given in the table were as follows: January, twelve and a half to fifteen cents; February, sixteen cents; October, fifteen to eighteen and a half cents; November, fifteen and a fourth cents, and December, fifteen and a fourth cents. They will, so say the dealers,

Remain Firm at Present Prices

Till May, unless a north wind comes and there is a prospect of a short crop. If so, they say they will fall about one and a half cents. But every thing at present is in favor of their rising. If the crop turns out according to universal expectation there may be over 20,000,000 bags required. Of these about 500,000 can be bought second hand, there are now nearly 1,000,000 in the hands of the trade, thus leaving 18,500,000 to be supplied by importation, or by local manufactures. The latter source will supply 11,000,000 bags this year, so that we will require to import 7,500,000 by next September, that is nearly double the quantity imported in 1872. During that year there was used 12,000,000 bags, of which 1,500,000 were second hand, 1,500,000 were manufactured on the Coast, and of which 4,000,000 were carried over from 1871. This leaves a balance of 3,000,000 to which must be added 200,000 English now in the hands of importers, making the total import of bags during 1872 to be 3,200,000. The competition of

The Local Manufacturing Trade

Will help to keep prices within limits. But for the 2,250,000 manufactured here last year, wheat bags would have reached 25c. As it is, they can be profitably made at 14½c each, and probably even lower. And English, or rather Scotch, wheat bags cannot give a profit to the manufacturer at Dundee or Glasgow except 13½c. to 16c. is received from them in this market, where formerly 12c to 13¾c would have paid. This is in consequence of the duty being raised 10 per cent. The first cost in Scotland is 7½ to 9c, to which must be added 2 9-10c to 3 3-5c for duty, 1¾c to 2c for freight, and 1c for insurance and other expenses, as well as 5 per cent. for profit. Last year the Oakland factory supplied the trade with bags from 1c to 2c cheaper than those imported, and it is claimed that the machine-made bags are as large and as strong in every way as the imported. Hitherto the

Duty Favored the Importer,

On material being 35c, while on bags it was only 30c, but last year in the revision of the tariff that was all changed, and now the duty on bags is 40 per cent, while that on material is only 30 per cent. The bag manufacturers say that they will be able, next year, to supply all the bags required on the Coast. The farmers may expect

Cheaper Bags,

For the agents here will have their hands full of consignments, and will be ordered to sell at any figure, for only a small percentage of the bags sent to this market are sent to principals. The dealers here have them consigned to them by merchants in England and Scotland, and, of course, so long as they obtain their commission, they are, to a certain extent, satisfied.

The Oakland Mill,

Which has been in existence about three years, made last year 1,000,000 yards of burlap, which is about equivalent to the same number of bags; this year they will make 2,000,000. This will leave the balance of raw material required by our bag-makers to be imported. One assertion, made by a leading bag-maker of this city deserves the serious attention of those who may contemplate entering into the culture of jute. He affirms that this plant cannot be cultivated here with profit, inasmuch as it can be imported from Cacultta, ready for the mill at 5 cents per pound. We will reserve our opinion on this matter for another opportunity, but we should like to see the matter thoroughly ventilated in our columns by those possessed of special information. We may say that we still have left for distribution some of the seed kindly forwarded by the Hon. Eugene Casserly, and that full instructions for culture may be found in various numbers of the RURAL. The

Stock on Hand

At the end of the years 1870, 1871 and 1872 has been as follows: January 1st, 1871, 4,500,000 bags; January 1st, 1872, 3,800,069 bags, and on January 1st, 1873, 200,000 bags, and 750,000 yards of burlap.

About Leaves.

The most marked distinctions in the vegetable world are found in the forms of the leaves and flowers, and it is from these that botanists found their distinctions of classification, as Class, Order, Genus and Species, the latter again into numberless varieties. Leaves are both the stomach and lungs of plants and trees, though occupying very different positions on the stems and branches. They also frequently determine the diseases to which trees are subject, as the yellows and curl-leaf in the peach, the mildew on the grape, etc., and being both stomach and lungs, to deprive a tree of these during the season of its growth, is, to deprive it or nearly so of life.

But leaves present other features of interest; they not unfrequently determine the varieties of certain fruits by some peculiar formation quite apart from their being the organs of nutrition. Thus in the peach, in some varieties there are certain excrescences termed glands, attached to the stem of the leaf, and that portion of the leaf nearest the stem, that not only determine in most cases the quality and variety of the peach, but their early or late maturity as well.

A leaf may be serrate, that is, may have its margin sharply toothed, like a saw, and wholly without glands, as in figure *a;* or it may be serrate having rounded projections, instead of angular teeth, and with round or globose glands, as in figure *b;* or with irregular or reniform glands, as in figure c.

These distinctions in the structure of leaves are interesting and that they index certain characteristics can be verified by careful examination and comparison of leaves and fruits; and a skillful botanist and fruit grower who has given much attention to the subject, can determine very closely from the leaf of a tree one year old, the nature and quality of the fruit to be borne by the tree at maturity.

CORRESPONDENCE.

Best Cattle for California.

ED. RURAL PRESS:—As I judge from reading the RURAL PRESS for a few months past, a good degree of interest is taken in the improvement of cattle in California, and that interes has been directed largely, if not chiefly, to the Short-horns. I question whether a mistake has not been committed in this respect, and as I hope to find a home in California withiu a year, would like to elicit some further information on the subject.

Short-horns have been the fashionable breed throughout a large portion of the State for a number of years past, and consequently have not unfrequently been introduced into localities to which they were not adapted, and sometimes for purposes to which they were unfitted. If a man wishes to raise cattle for mere fancy, Short-horns are entitled to his first consideration. They are large, handsome, fine; splendid animals to show at the Fairs. If he wishes to raise cattle for beef exclusively, they are entitled to the first rank, but they require rich and luxuriant herbage in abundance, where they are not required to travel far to get it. They are illy adapted to traveling over hills for comparatively scanty herbage. For any other purpose than beef or show, they surely cannot rank as more than third best.

The Devons are greatly their superiors for work cattle, and better for beef in hilly regions, and as a general thing much better for milk. Some families of the Short-horns have possessed good milking qualities, but such families have generally been neglected, and most of the Short-horn breeders have bred for beauty and beef qualities, Kentucky breeders have kept additional common cows to afford milk enough on which to raise their Short-horn calves. The milking qualities of the Devons have been neglected in some instances, but as a rule they give a reasonably good quantity of rich milk.

When I see it stated that California dairymen are endeavoring to improve their dairy stock by the use of Short-horns, it certainly looks like a big mistake, provided they have the means of doing better. What the dairyman wants is the largest yield in proportion to the cost of keeping. He wants cattle especially adapted to the production of milk; a breed that has been bred with a view to the development and improvement of the milkiug qualities. If he obtains Ayrshire males for crossing on natives or others, he will secure a valuable improvement for his purpose, if not the best.

The Ayrshirc cow is smaller than the Short-horns, but will yield a larger quantity of richer milk. The Ayrshire grades are generally superior milkers, often quite equal to the thoroughbreds, and usually have larger teats. My neighbor, on adjoining land, has a cow, seven eighths Ayrshire, a perfect beauty as a milch cow, that yields seven gallons of milk per day during the best of the season.

The milk of the Ayrshire is rich in casein, the cheese principle, and if cheese or quantity of milk is the object, it is doubtful whether a better breed for the purpose can be obtained. The Dutch or Holstein cattle are much larger, and may possess the advantage of making better beef animals when turned to the shambles. Their milkiug qualities have been developed to a remarkable degree, and they are thought to make good work oxen. If large size is considered an object in dairy stock, the Holsteins are doubtless the best, at least they are deserviug of a trial.

For the butter dairy, the Jerseys take the lead, yielding less milk, but with a larger per cent. of cream that makes rich, yellow butter.

At the Massachusetts Agricultural College, they have a large stock of choice cows, representing most of the leading thoroughbreds, and they have been systematic in endeavoring to ascertain the qualities of each breed. The statement is as follows:

"Yarico 57, Short-horn, 2 years old, weight 1,300 pounds, greatest yield of milk 16⅓ quarts, and per cent. of cream 10."

"Autumn Rose, Short-horn, 4 years old, weight 1,095 pounds, greatest yield of milk 17 quarts, and per cent of cream 12⅓."

"Emma 3d, Short-horn, 2 years old, weight 912 pounds, greatest yield of milk 11⅓ quarts, and per cent. of cream 11."

"Lulie, Ayrshire, 4 years old, weight 977⅓ pounds, greatest yield of milk 19¼ quarts, and per cent. of cream 13⅓."

"Beauty, Ayrshire, 18 years old, weight 855 pounds, greatest yield of milk 20 quarts, and per cent. of cream 12."

"Rosa, Jersey, 4 years old, weight 880 pounds, greatest yield of milk 10¾ quarts, and per cent. of cream 16."

"Pauline, Brittany, 2 years old, weight 545 pounds, greatest yield of milk 8⅓ quarts, and per cent. of cream 14."

So far as this statement goes, it shows that the Ayrshires take the lead as milk producers, the Short-horns for size and the Jerseys for per cent. of cream. The point is to secure the best cattle for the object desired, always considering the character of the locality, and to breed for that object. Breeding for milking qualities is different from, and inconsistent with, breeding for beef.

Within a few years considerable interest has been developed, and something accomplished in regard to importing desirable breeds of Polled or hornless cattle. If such a breed can be obtained, good for general purposes, of which there is no doubt, is it not an object much to be desired? Cattle with horns do a good deal of damage sometimes, and for shipping in cars or handling in any other way, the less horns the better. Then why not better still no horns at all? L. D. MORSE.

Kirkwood, Mo., Jan. 15, 1873.

Sheep Raising.

EDITORS PRESS:—Enquiry was made in the Sonoma Farmers' Club as to where "pure Silesian sugar-beet seed" could be obtained. Anyone who really wants to make sure of a genuine article, can obtain it by sending to Messrs. Sutton & Sons, Reading, Eng. I don't know the exact cost, but it is probably about 37½ cents (1s. 6d.) per pound and the postage that much more. Anyhow by sending a dollar in currency with the order, they will receive a pound of reliable seed. I have no interest in recommending them further than that I yearly receive seeds from them which give me the greatest satisfaction.

Sheep.

Last week a subscriber asked for information about sheep. I can't claim to be or to have been a sheep owner, but I have superintended a large sheep ranch, so can give the proximate balance sheet. Of course much depends on the breed of sheep, the character of the season (especially lambing time) and the energy and ability of the owner and his shepherds. The range, also, materially affects the balance sheet in the matter of "burry" wool, sold at a low figure. The price of the ewes ($3) your correspondent names, seems low for present market, but we will make that the basis of the calculation:

EXPENSES ON 2,000 EWES AT $3.00.

Interest on $6,000 at ten per cent	$600
Two per cent. loss on Stock	120
Range	300
Herder	360
Herders' Board	150
Help at Lambing	120
Shearing Ewes at six cents	120
Bags and incidental expenses of clip	100
Hauling to Landing	100
Dressing for Scab, etc	100
Shearing Lambs and incidental expenses	150
Taxes	60
Total expense	$2,280

RECEIPTS FROM 2,000 EWES.

Eight thousand pounds of Wool at 25 cents; sold at Landing Clear of Freight, Commission, etc.	$2,000
Wool from 1,500 Lambs	500
One thousand five hundred Lambs	2,250
Total receipts	$4,750
Profit	$2,470

It will be easy to make exceptious to above account, but any one can alter the items either for or against himself as circumstances dictate. For myself I should not like to reckon on wool fetching more than 20 or 21 cents grossin San Francisco, from which I should deduct freight, commission, etc. That is a deal nearer the average of the last ten years than the 25 cents clear allowed in account. Then in a dry season any one who can keep their flocks throngh without decrease may think they are doing well; while the increase allowed, 75 per cent., is fair for a favorable season. Of course more may be done, especially in small flocks with personal attentiou; but a heavy storm in the lambing season is a disaster that no one can prevent, and whose injurious effects no precautions, short of covered corrals, can do much to mitigate. So much for sheep. "Wool on the brain" may be a very good thing for negroes, but even they don't want too much of it. Verb, sap.

Now I have told what I know about sheep, I want some one to tell me what they know about strawberries. When should the plant be cut down, and should the whole top be cut clean off, or only the outside leaves. Then does liberal manuriug make them produce fruit or go too much to leaf? Mine are on low moist sandy land. E. B.

Carmel Valley, Jan. 23, 1873.

Battle of the Toads and Moths.

In visiting the apiary of Mr. McClish, of Healdsburg, the other day we were much amused with his account of the manner by which he has contrived to make the enemies of his bees destroy each other. The toads used to take supper, at twilight every evening, by making a slight disturbance at the entrance to the hives, and eating the bees as they came out, until their hunger was appeased. Then they would take leave without paying their bills. For a long time he waged a war of extermination against the toads. Then the moths came in for their share. Now he sets his hives on boards that do not project more than 1½ inches from the hive, and these are set on blocks of wood that raise them about 3 inches from the ground.

Now the ledge is not wide enough for the toad to sit upon and coax the bees out of the hive as he used too. Still the entrance to the hive is not so high but that the toad can catch the moths as they alight there to enter the hive. As good luck has it they come at the toads' supper-time. So old enemies are made friends. By uniting the bees and toads against a single enemy he has made friends of them upon the same principle of statesmanship by which Bismark united the German States into the Grand Empire. C.

Healdsburg.

This is a place of about 2,000 inhabitants in the northern part of Sonoma county and is the natural center of cousiderable trade.

It is surrounded by a series of very fertile valleys from one-half to ten miles wide adjacent to hills adapted to grazing cattle, sheep and goats. These animals can be so ranged upon the hills that the goats may not go where the sheep can live nor the sheep where the cattle range. The valley land is said to be the most desirable in the State, for it will raise any kiud of a crop and they have never known a failure.

They do best in a year of drouth. They have enough rain even then and are sure of good prices. Those who are loooking for a stock range where they can have a good home for a family in a fertile valley, and still be not too far removed from city or schools, should go to Healdsburg.

Many a man has gone there attracted by its natural advantages and been driven away by seeing how little man has done for the place.

The houses are much scattered and there are very few good buildings for a town of the size. This is by no means the worst of it, for taste and refinement may be shown abont the humblest cottage. The general want of these qualities is the feature of the place which impresses itself most strongly upon a stranger. Where they can raise almost any plant that grows, there is many a yard where you will see not a plant for ornament, and hardly so much as a currant bush for comfort. A stranger will often be deceived in the proprietor of such a place, but he will always expect to find him poor and a man of little enterprise, public spirit or cultivation. He will always expect to find him with plenty of time on his hands, and if he is looking for him will go first to the saloon.

Is it to be wondered that the class of men who make the best citizens hesitate to settle in such a place? Things are moving in the right direction now. They have a fine nursery there and people are planting some trees and they are getting ready to fence the Plaza which has been a barren and unsightly place. A fine park and fountain there will help things amazingly.

They need the labors of Hercules of old, who drained the marshes, cleaned the stables and killed the hydra. They have such an one but he uses his pen for a club and waves his *Flag* far in advance of them.

Should we visit Healdsburg in future years we do not expect to be obliged to look to the distant mountains and the native groves for the only traces of beauty—but hope that where Nature has done so much man will do something. There is a movement well started to draw the travel to the Geysers and Skaggs' Springs by way of Healdsburg. Geyserville and Cloverdale are both disposed to compete for the business and we don't know but the time may come when it will be cheaper for pleasure-seekers or health-seekers to visit these places than to stay at home. C.

Angora Fleece.

EDITORS PRESS:—You will please allow us space in your paper to say a few words of importance to Angora goat breeders of this coast.

We have made arrangements with James Hartley & Co., Front street and Broadway, to receive, ship and sell our clip for this year, and they also propose to handle all the fleece they can get of others on the same terms. In justice to Mr. Hartley I will here state, he is entirely reliable, was a first-class worsted spinner in England thirty-five years ago, has been familiar with the mohair trade thirty-five years, has bought and sold a large proportion of the mohair in the United States. I am satisfied he can and will give better results than any man we can select to handle the fleece of this coast.

What I wish to impress npon the minds of breeders is this fact: In order to get a home market we must get together at least 20,000 pounds of combing staple, say 4½ inches long and upwards, to justify a factory to start up and work it. Mr. Hartley has just returned from the East, where he visited most of the worsted factories; we cannot give the entire result of his investigations, suffice it to say that it will cost from $3,000 to $4,000 to put on the change of machinery necessary for working mohair. and cannot afford to do so short of 20,000 or 30,000 pounds of fleece; if they can get that amount they will pay an advanee over the English market; the duty being about 40 per cent. to get it into our market, and 60 on mohair goods of any kind. Our worsted factories ore importing thread to stripe and figure worsteds, and paying in England $3.00 per pound and $1.00 duty, besides freights and commissions, costing over $4.00 per pound.

Breeders should shear everything that is long enough to shear, without regard to quality; it will all sell for something, however short and kempy Mr. Hartley will sort and grade it before shipping. Producers should roll up the fleeces with the points of the staple out, just the reverse of a sheep's fleece, tie it up with twine and bail or sack it, and ship to James Hartley & Co., Pacific Wool Depot, corner Front and Broadway streets, S. F.

By all means shear close and preserve all the length of staple; let the points of the shears range toward the back, on both sides, and they will cut much closer. We think there is fleece enough this spring to establish a permanent market, if all the breeders will shear in good time and bring forward their clips. We urge that no one should let his goat fleece shed off and waste this season.

LANDRUM & RODGERS.

Watsonville, Jan. 30th, 1873.

Turkey Raising.

EDITORS PACIFIC RURAL PRESS:—There are immense tracts of land lying in the interior valleys of this State, which, without irrigation are almost worthless for farming, that would afford excellent range for large bands of turkeys, and the raising of which would prove a very desirable investment for parties wishing to engage in a business requiring a small outlay of capital to commence with, light pleasant work, and sure returns; provided proper care and attention is observed in breeding and caring for young. Let a person commence with, say $200; my plan would be to buy 100 hen turkeys and ten gobblers, large black ones if posible, weighing from 18 to 22 pounds. Care should be taken that the breeding stock are at least one year old, (two would be better,) large boned, with erect carriage and good constitntion. A person that understands something of the management of turkeys, could, with ordinary success raise 1,000 turkeys, which in the fall, making a low estimate, would be worth on the ranch from $1.25 to $1.50 per head according to size; or about $1,200. The cost of constructing sheds and roosting places and making coops for confiuiug the youug turkeys would not exceed $50 at the outside; leaving $40 for other expenses. Mr. Jenkinson on Mussel Slough raised some 200 turkeys last year from one gobbler and twelve hens, and he only had one to die of disease out of the entire lot. Turkeys on the plains find their own living and after they get large enough to travel are herded in bands like sheep until fall, when they are nsually driveu to some stubble field to fatten, before being sent to market. Perhaps in some future article I will give a more detailed account of the management of young turkeys. C. H. P.

Kingston, Jan. 29, 1873.

What they have in Solano County.

A correspondent, C. D. T., of Suisun after putting in a word of just complaint perhaps, that the RURAL seldom speaks of Solano county, says that "It has much good wheat soil; it has fruit lands unsurpassed; it has sheep ranges, and sheep whose wool stands among the high grades; it has men of intelligence and enterprise, who study agriculture, and believe there is much to learn upon the subject from reading the experience of others, and it has men also, who 'want to know what them fellers in San Francisco know abont farming,' and say 'I have been farming for 40 years, and I think I ought to know as much as they do about it.'

Mr. A. T. Hatch, a warm friend of the RURAL, showed me with pride, and well he might, his Poland and China boar, weighing 305 pounds, 1 year and 5 days old, whose daily hash is composed of beets and stale apples.'

Now if we could get every week only a similar note to the above, from half a dozen or more of the farmers of Solano county, we could show you an interesting column. As it is, we are dependent entirely upon our exchanges, and we carefully go over them week by week for agricultural items, but finding very few.

Questions for Discussion.

ED. RURAL PRESS:—As a subject proper to be "Clubbed," I would offer:—

Would the introductiou of our *National Currency* promote the farming, manufacturing and other industries of the State?

ANOTHER.—Are our laws in regard to *Taxation* equal and just? If not, what would make them so?

ANOTHER.—Are our *Taxes* higher than they ought to be? And if so, what is the remedy?

RUSTICUS.

Santa Clara, Jan. 25th.

In our issue of the 20th inst., we proposed that readers of the RURAL send in questions for discussion by the farmer's clubs; and already they begin to roll in upon us. We hope they may be taken up and clubbed till something of interest and profit to the farmer shall result.

PLANTING ALMOND TREES.—Col. H. L. Preston, who has a fine vineyard on the east side of Russian river, about two miles from town, has received about three thousand almond trees, which he is setting out in his grounds. It is his intention to plant ten thousand in all. We have no doubt the almond can be successfully raised here and will prove very profitable. Near San Buenaventura, below Santa Barbara, Mr. Chillsom has an almond orchard of about 380 trees, 300 of which bore more or less fruit last year. He gathered from these trees about 2,500 pounds of clean fruit the past season, which he sold at an average price of eighteen cents, unbleached and just as they came from the hull. His trees were planted six years ago, and never irrigated but once. They are now from twenty to thirty feet high.—*Russian River Flag.*

The Horse.

A Horse's Feet and Legs.

The foot and leg of a horse is a very complicated piece of machinery, full of the most delicate membranes, cords, hinges, springs and cushions; each of which is exactly fitted not only to do certain direct work in enabling the horse to move, but in supporting the others, and in protecting it from injury. There are also secretions of joint-oil, *synovia*, a viscid fluid, the office of which is to lubricate the joints, and allow an easy motion of the head of one bone on that of another. The foot, so far from being what it is generally supposed, a lump of insensible horn that may be pounded on the stones, or rasped, cut or trimmed into or out of shape, or scorched or burned, is, on the contrary, a bundle of the most sensitive bones and sinews, incased only in the insensible outside crust of the hoof and sole, and connected therewith by equally sensitive laminæ or leaves, by which the whole is bonnd together.

To preserve this delicate bundle of bones and sinews from shock and consequent injnry, there is provided a soft elastic cushion, the frog. Now, when we see a wild pony on the plains, or a young colt gamboling on the soft elastic turf of a smooth meadow, we can see how beautifully all these parts act together, and how graceful and elastic a step they enable the animal to exhibit, and, remembering the exact balance of the parts wonderfully provided by natnre, can understand how injury is avoided to the most sensitive of them. Bnt when we take the horse and cut away the frog, removing the safeguard there provided for the sole of the foot, and pare away the crust, and fasten on a shoe of three or four ponnds weight to each foot, and, in addition to carrying his own weight, compel him to draw heavy loads over roads paved with rongh cobblestones or rough fragments of broken rock or loose pieces which yield and give way beneath his tread, causing sudden jars and strains and severe shocks, we forget that he is no longer in his natnral position, and needs the closest care and the most intelligent management to preserve him from injury. And this is precisely what in nine cases out of ten he does not get.

On the contrary, as long as he can stand beneath a load it is piled on. While he can drag one leg after another on the road he is urged by whip and spur. His feet are cut and carved to suit the taste of a man who never examined its structure. Roads are constructed on any system rather than one adapted to suit the valuable animals condemned to travel on them; and the hills are not made level nor the rough places made plain for him. His stable-floors are usually made so as to compel him to stand in an nnnatural and nneasy position, and to weaken or to strain his limbs. And finally, although many other instances are omitted from want of space to mention them, the most thoughtless cruelty is often exercised in compelling him to over-work when not physically matnred.

A horse is often loaded to his utmost capacity on a level road and then has to mount a hill. He has not only to draw the load upon the ground, but he is made to elevate the whole weight of himself, the load, and the wagon through a space equal to the elevation of the hill. In addition, the ground is less favorably placed for his foothold. Without mercy the whip is used to stimulate the willing but wearied beast. This overexertion may not injnre his digestive powers nor his circulating system. But mechanically the resnlts may be the most serious. Brnises of the sole may result in canker, quittor, navicular disease, or thrush; jars and shocks prodnce sprains, knuckling, ringbone, shonlder lameness, inflammation of the joint membranes, spavins of all kinds, tnmors, wingalls, aud almost every other possible blemish or disease of the limbs. These bruises, jars and shocks almost wholly resnlt from thonghtlessly pntting a horse in the position above named. It is not often that farmers' horses are injured in any other manner than in some easily preventible one, and if sufficient care were nsed to prevent injury there wonld be but little tronble from any of the diseases here pointed ont.—*Am. Agriculturist.*

What is a Blooded Horse ? — He is a horse having more than an ordinary amount of drops or pounds of blood in his system in proportion to his size and weight. This large amouut of blood acts npon his system through a large heart and corresponding large arteries and veins, and pnt in motion, it acts in driving him to speed the same as an increased amount of fire nnder the boiler drives off a greater amount of steam, and makes the machinery go faster. This large amount of blood also acts in refining the skin, making it and the horse finer than a horse of less blood; it refines and gives elasticity to the muscle, the feet, etc., it refines the entire horse, making strong and valuable parts, and fitting the whole system for speed and endurance.

Remedy for the Epizootic. — The Secretary of War directs that officers of the Quartermaster's Department likely to be bronght in contact with horses affected with the epizootic be instrncted to nse the following recipe, as a remedy in the treatment of horses attacked with the disease, viz: Chlorate of potash; a solution of one teaspoonfnl in a pail of water. One-fourth of this quantity to be given twice a day to each horse.

What Kind of a Bit to Use

A correspondent writes to the Farmers' Clnb of New York asking what kind of a bit gives a driver the best control over a horse. He says some recommend Hackney's patent, others, the "curb," etc. Mr. Berg being called upon to reply to the query, spoke as follows:—

In reply I have to say that I abhor all bits; believing that these infernal machines had their origin in that cruel and arbitrary authority, which mankind exercise in all their intercourse with the lower animals. It is said that "sugar will catch more flies than vinegar;" and so will sweet treatment of the noble horse result in far more gentleness than severity. The whip, the goad, the check rein, and the fearful iron inventions which are pnt into and about the tender mouth of the horse, are merely evidences of man's thoughtlesness, ignorance and cruelty, where he can exercise his instinct with impnnity. I have traveled in countries where the bit and the whip are comparative strangers, and where the driver conducts his horses solely by verbal argnment, as if speaking to his sons. The tronble is men will not stop to learn how mighty are kind words and treatment, and no living creature is more tractable and obedient to their influence than the horse, that glorious creature of which Mohammed, in the Koran, makes such affectionate mention. As I walk about our streets and observe the double bits and chains within the bleeding months of the horses of "our aristocracy," I am obliged to make a snpreme effort, I assure you, to preserve my composure. The inventors of these instruments of torture should be made "to get out stone at Sing Sing," instead of a patent. It is true the Hackney bit is one of the mildest of these tortures—in the sense of whether it is milder to have the jaw broken or crushed—but they are all murderons in their effects; and if bits must be used, why then, the gentlest should be employed, and that one is the "snaffle."

Floriculture.

The Rose.

The following interesting facts and fancies respectiug this flower which every one loves so much, are given by the *Household:*

There is an old legend which says that Eve brought the rose ont of Eden with her. It has always been a favorite flower with the Jews, and Solomon likens Christ to the rose of Sharon. In later times the Rose of Jericho has usurped the place of affection so long held by that of Sharon. This rose is a native of Arabia Petrea, and opens only in fine weather. It also possesses, in a remarkable degree, a reviving power, and can recover its life when to all appearances dead; hence the Jews use it as the symbol of resurrection.

The white rose has always been sacred to the Virgin Mary, and mingled with the cross, it was the device of Luther and also of the Rosi-crucians *(sub rosa crux)*. The red rose is the emblem of love and also of silence, because Cupid gave it to Hippocrates, the god of silence, in order to bribe him not to reveal any of the indiscretions of his mother; hence it was often placed over the doors of guest rooms, to signify that perfect freedom of conversation might be indulged "under the rose," for nothing so said was to be repeated. And as stratagem delights in silence as well as love, the Romans placed it on their shields. Over Greek, Roman and Chinese graves it is a frequent emblem, and the Turks will not suffer a red one to lie on the ground since the day it was colored by the blood of Mohammed.

The Arabians have a legend of a garden of roses planted by King Shaddad, and now buried in the desert, which is analogous in many respects to the garden of Eden. Throughout southern and central Europe it is used in love spells and divinations. One common German superstition is to name rose leaves and then throw them into a basin of clean water. The leaf that sinks last is to be the husband or wife of the inquirer. Another superstition is to throw rose leaves on to hot coals; the burning fragrance is thought to attract good fortnne. White roses blooming at an nnexpected time are believed in England to denote a death in the family of the owner, and red ones a marriage. As the lily is the emblem of France, so the rose is of England, where it assumes more of a historical than sacred character.

Flowers, God's Messengers.

The cultivation and study of flowers appears more suited to females than men. They resemble them in their fragility, beauty and perishable nature. The Mimosa may be likened to a pure-minded and delicate woman, who shrinks even from the breath of contamination; and who, if assailed too rudely by the finger of scorn and approach, will wither and die from the shock.

Flowers possess, also, a great moral influence. Who is there with feelings violated, that does not feel refreshed and revived when entering a garden filled with these beautiful creations. To him who leaves a scene of gaiety—a crowded, heated room, and wanders forth from the scene of art to gaze on the charms of nature, where the breath of these lovely messengers greet him, how soothing their influence. How much softer and better his heart becomes? How many remembrances are called up which before lay dormant in his heart ? How humble, how subdued he feels ! All the proud visions of ambition and distinction vanish. He asks himself if he is indeed the same who, a few moments before, had been panting and stirring in the ranks of fashion. Now he wishes never again to be in her presence. He thinks he could live and die in some peaceful, retired spot, surrounded by the flowers which his own hands would cultivate. There he would be happy,

"The world forgetting
By the world forgot."

It is strange what thoughts come thronging to our minds at the sight of some faded flower we have preserved. It recalls the friend who plucked it; the words that were spoken; the bush upon which it grew; the home which we have left; the spot rendered sacred by its associations. All these are called up—and by what ? A withered flower ! One who knew not its story would scatter it to the wind, and think not of the tale it could tell to some hearts. It is a connecting link in the chain of memory, and it adds another and another till every circumstance is presented. Flowers are bright spots in life's journey.

The Tuberose is both double and single. The double is generally cultivated, the single varieties are rarely seen; yet by many, who are familiar with it, is highly praised because of the perfect form of its flowers, which look like delicate tubes of wax, and its odor is quite as delicate and delicious as the double one.

Miscellaneous.

Electrical Phenomena—Ball Lightning Explained.

It was formerly assumed that great masses of clouds—thunder clouds — are themselves the generators or sources of those great charges of electricity which result in thunder and lightning; but late investigations render it more probable that such clouds merely act the part of the coatings of a Leyden jar to accumulate and concentrate the charge at some projecting point—a positive pole, whence it may pass by an eruptive discharge to a negative pole. Electricity exists in the air, whether cloudless or otherwise, and a heavy, moving cloud, merely acts the part of a carrier or accumulator, the charge of which continues to increase until its intensity is sufficient to jump the chasm which exists between it and the nearest negative pole—be it another cloud or some projecting conductor presented by the earth.

In a paper recently read before the Society of Telegraph Engineers, of London, by W. S. Preece, Esq., we find the following in reference to some of the various phenomena presented by atmospheric electricity:

Lightning is usually classified into *sheet, forked* and *ball* lightning. *Sheet* lightning is merely the reflection of forked lightning, or the electric discharge which has occurred somewhere out of the field of view. *Forked*, called *zig-zag* or *chain* lightning, is the light produced by the disruptive discharge between cloud and cloud, or between cloud and earth. *Ball* is of a very different character. Many of the so-called "balls" are undoubtedly optical illusions, and Faraday himself stated that they were incompatible with what we know of electric discharge. "There may be balls of fire," said he, "but they are not electrical." Yet the evidence of balls of blue fire rolling along the surface of the sea, and suddenly terminating in terrible electric discharges over ships; masses of fire rolling along the ground towards buildings, ending in fatal discharge, and many other cases, leave it unquestionable that some such phenomenon as globular or ball lightning exists. Some have explained them to be balls of incandescent gas, rendered so by the discharge; but Mr. Cromwell Varley has recently offered a more acceptable explanation. According to him, ball lightning is a luminous spot on the earth, terminating a current or brush discharge from a negatively charged cloud. This spot moves with the cloud. Illuminated lines of force are projected from some point in the cloud upon the earth. He has been very successful in repeating the effect experimentally, and he suggests this fact as an explantion of the photographic images imprinted on the skin of persons struck by lightning.

I quote from memory: "When after a serene sky, thunder clouds form in the distance, the observer sees the clouds and the illumination of the lightning displayed before him as a magnificent picture; and what he often takes to be forked-lightning (i. e. the actual flash, and not the reflection of it) appears to run through the clouds in the most beautiful manner." "That which is thought to be the electric discharge is only the illuminated edge of a cloud, beyond and behind which the real discharge occurs. It is in its nature like the bright enlightened edge which a dark well-defined cloud often presents when between the sun and the observer, and even the moon also frequently produces similar appearances. In the case of its production by lightning and distant clouds the line is so bright by comparison with the previous state of the clouds and sky, so sudden and brief in its existence, so perfectly defined, and of such a form as to lead everyone at the first moment to think it is the lightning itself which appears."

Hence many of the errors made as to the character, shape, and condition of the lightning flash.

Lime and Mortar.—The main results of certain recent experiments made to obtain accurate information on the process of the hardening of lime and mortar, as applied for ordinary building purposes, are that the freshly-applied mortar gives off, at first, water only, by which process the particles of lime begin to adhere together; afterward carbonic acid begins to be absorbed, and thereby the solidity of the mass is increased. The last stage of the drying of the mortar coincides with that of saturation of the lime with carbonic acid, and this process causes the fixation of the porous bricks with the mortar. The absorption of carbonic acid alone, without previous dehydratiou, never causes ordinary mortar to become hard. Freshly-made mortar exposed to an atmosphere of moist carbonic acid remains soft; while mortar placed under a bell-jar filled with carbonic acid, and standing over a basin filled with strong sulphuric acid, (which rapidly absorbs water,) becomes rapidly hard. Large quantities of mortar, especially with limited exposure to air, take months, or even years, to harden.

Tools vs. Hands.—The late labor troubles and the advancing price of coal in England is operating as a spur to employers to devise ways and means to do the same work with less hands and less skilled labor. Tool makers are consequently reaping a rich harvest in the increased demand for tools of all kinds. Constant efforts are also being directed to devising new appliances as substitutes for human hands. It is thought that the current of engineering thought, for the coming year, will be more than ever turned to the invention of special machine tools. Cheap motive power is also a great desideratum, and is commanding an unusual amount of attention from constructing engineers. Improved engines for economizing power are also in great demand; especially is this the case for marine use, where compound engines are in great demand. Much the same results are also observed in this country, and there is no doubt but that inventors and their devices will attract more attention within the next year or two than ever before.

The Production of Manganese.—There appears to be dawning upon us the possibility of reducing manganese on a metallurgical scale from its ores. It is somewhat remarkable that a metal which possesses such peculiar and valuable properties should have so long resisted the attacks that have been made upon it. We really know very little about it, and it is only recently that its reduction from its ores has been accomplished in any quantity. It is generally stated in the books that is necessary to keep metallic manganese either hermetically or inclosed in naphtha. If we had never seen iron in larger fragments than a hazel nut we should be apt to come to the same conclusion. It was only when iron was worked by the ton that we learned to know its properties. When we have manganese in equal quantities we may discover that it can also be safely left outdoors, if protected by paint, and we shall doubtless find its alloys of great value in the arts.

Oxygen on Life in Water.—According to Dr. Carpenter, if we go deep enough in the open sea we shall always find the temperature as low as 32°; but in inclosed seas, such as the Mediterranean, the deeper and colder water, circulating from the poles, cannot enter; therefore the lowest bottom temperature is determined by the lowest winter temperature of the surface. Scarcity of life in the Mediterranean he considers to be owing to a deficiency of oxygen in the water, due to its combining with a large quantity of organic matter brought down by the rivers and emptying into it. Thus, while in the Atlantic we usually find 20 per cent. of oxygen and 40 per cent. of carbonic acid, in the bottom waters of the Mediterranean there is often only 5 per cent. of oxygen and over 65 per cent. of carbonic acid.

Mechanical and Moral Progress.—Mechanics are moral reformers in the broadest sense of the term. They may work with an eye single to their daily wages, but they are nevertheless gradually changing the whole drift of human affairs. Every machine, large or small, be it a one thousand horse-power engine, or a kitchen maugle, is an engine for the advancement of the moral as well as physical nature of the race. Every blow the smith strikes in his workshop is a blow at the slowly yielding barrier that separates the dimly-lighted "now" from the clear light of the "yet to be." Spencer himself would never have been the great leader of thought that he is, had it not been for millions of just such blows. Blows preceded books, and books were before Spencer.—*Am. Artisan.*

Sails *vs.* Steam.—Few are aware of the great revolution that is going on in England in the way of substituting steam for sails under the foggy skies in the narrow channels and in the stormy climate of Northern Europe. The steamers have advantages over sailing vessels so great that the latter will be excluded from all the larger classes of business. In the last six years, the annual tonnage constructed, of sailers, has fallen nearly seventy per cent., while that of steamers has increased seventy per cent. Whether the steady breezes and the placid waters of the Pacific are to become the monopoly of the steamers is still to be determined.

Farmers in Council.

Circular of the Stanislaus Farmers' Club.

To the Farmers of Branch Township, Stanislaus County, California: Gentlemen and fellow-laborers at the plow; co-workers in the noblest avocation that has ever engaged the attention of man. Noble, because of its honesty. Honorable because of its antiquity. By it the wants of mankind are everywhere supplied; upon it all branches of industry, commerce and the trades are dependent for their livelihood. In a word it underlies the prosperity of all nations as the basis of civilization, and the link that binds our country together.

If it be true that agricultural pursuits first engaged the attention of man; if their natural wants could be supplied by no other means, it is true to-day, for the same law of demand and supply govern to-day as two thousand years ago. We learn that in primitive times men were compelled to live in communities the better to protect themselves from the attacks of the less industrious savages, that their families might be seenre whilst they plied the axe and the hoe. We feel the necessity is equally as great now for a combination of communities strong enough to beat back the attaeks of the prowlers that fatten on the farmer's toil—combination. There is wisdom in council and strength in combinations. But in order to be successful we must first understand the principles upon which we wish to unito and how such union may be brought about. A few of us have combined. We met at J. W. Roberts on the 8th of December and organized a Farmers' Club, to he known as the Farmers' Club of Branch Township, Stanislaus County, California.

The undersigned were appointed a committee by that body to make an appeal to you, and ask you to come up and help us in the good work begun. It will cost but one dollar and you may withdraw from our circle when it pleases you so to do.

The Object—Theoretical.

But that you may not act unadvisedly, we propose to submit a few facts for your serious consideration. Our object is to discuss, and disseminate useful information among its members and practical knowledge pertaining to the various branches of agriculture and all other matters affecting the interests of the farmer to bring about a greater degree of sociability, a more full interchange of thought and opinion and greater interest in agricultnre generally.

"This is all very good," we hear a voice repeat, "but where is the cash in all this strain of words? The farmer always looks for the golden grain at the end of his season's labor; so in your circular give us golden periods."

The Object—How to be Obtained

We have over 40 members in our Club, and we propose to so conduct its workings that every school district shall have an honorary Vice-President or Marshal who, on all important occasions shall give notice to the residents of his district of the matter before the Club; shall solicit for subscribers, and distribute publications and seeds for such district. We hope to have clubs similar to our own in every township in the county, during the year; and these by delegates to form a County Club to confer with the State Club, formed from all Clubs of the State, either through county organization or independent clubs.

It is with the highest pride that we can inform you that at the head of the state Club we now have the prince of farmers, Gen. Bidwell, I. N. Hoag as Secretary, with A. T. Dewey, of Rural Press as Treasurer. Need any one fear to associate in an effort at self-protection with such men for leaders? That man who falters to lend a hand in this life struggle for his rights and justice, ought to be stricken from the list of the tillers of the soil.

The Cash in Hand, Offered by the Club.

By the united effort of the 200,000 producers of the State we can accomplish our release from the most unjust discrimination in favor of capital against labor in support of the Government. For every acre of ground you farm, brother tillers, of the soil, you must pay tax on an assessment from two to three dollars per acre, whilst your neighbor landholder rents his for one dollar per acre, or more, or another saves the same amount of cash you have invested has a sure return and pays no tax on his growing crop.

We want your name to the Club list so that when the effort is made we shall know where to find you, and can call for your name and aid to lift this tax off the growing crop; there is money in the effort, friend of the plow. Money can be saved on your sacks by clubbing and ordering direct from the manufactnrers; we can obtain sacks at first cost in San Francisco—about nine cents apiece—and we have been informed that by combination some one of the Bay Clubs obtained sacks at about eleven cents apeice, while we in Stanislaus paid as high as twenty-two cents, and as the Pacific States alone ship their grain in sacks, we shall petition to Congress to take off the tariff on sacks and sack material for our ports. This will help to lessen the price from two to three cents apicce. The Western States—competitive wheat growers with us—send all their grain abroad in bulk and keep their sacks at home.

We ask you to help inaugurate this new feature of grain shipment and save yourself from forty to eighty dollars per 1,000 centals in lifting your crop each year. San Joaquin valley has been taxed in the past year not less than $400,000 such tax, and Stanislaus has paid $150,000 of this; yet your grain in Liverpool brings not one cent more for this tax of sacks. What say you, neighbor, with the sweat upon your brow; is this effort worthy of your support? Can't you feel the money in your pocket in the success of this scheme?

Ship Your Own Grain.

Through the State Club we expect to be able to ship our own grain without the aid of middle men, and beyond the control of the rings; commanding the lowest rates of freights. Already shipping agents have made overtures to one of the subscribed committee, stating that if you will only combine and have your grain accessible, so that on short notice it can he sent forward, we should have his vessels at the same price he had them, (as his business is chartering and loading grain vessels); that we could have an advance of $20,00 per ton, no wharfage nor storage charged, and no interest on the advanee when afloat and when arrived; if the grain should he held for an advance, four per cent. per annum only would he charged and no commission for selling. The method is just as safe as if your money was deposited in the bank. If this he so will you wake up and clasp hands with the Club, or, "clod-hopper-like" can't you unite with any one for a general good? Well, give us your ear while we tell you.

You have 3,000 or 10,000 centals of grain, you have no store-house for it. You and a neighbor or two, or your Club, have a store-house at the railroad point. You take it there; it costs you just enough per ton to store, to pay the club agent for soaking it for you and the interest on your house. The order comes, "a vessel in;" 10,000 centals wanted from your club, ten from another and so on, until the order is full. If you choose you send yours.—When it is on board the vessel you get your receipt for the amount and a check on the Bank of B. N. America for your $20 per ton advance, and a promise of payment in full when the cargo is sold and returns made. Here is no chance for a failure; the bank is your backer. The Bank of British North America is about as good as they have them.

To show you some of the perquisites of the wheat rings. One is, they manage the telegraph to suit their ends—telegraph through as quick as lightening; has all summer been behind the weekly reports of the Liverpool market, and here is the proof: that as soon as the ring had got all the wheat in store they had capacity for, wheat takes a sudden rise, while the Liverpool market is on decline.

Again the per cent of the ring: When wheat is in Liverpool 12s 8d freight, 3£ 12d this shipper at San Francisco will guarantee us $2.29 per cental, while at this same date the buyers were paying only $1.95 and $1.90. Farmers you gain it all in this one word—organize.

A Farmer's Bank.

The National Banks are secured by the nation's pledge. A Farmer's Bank can be secured by the broad acres of wealth of the farmer. In the East it hunts investment at seven per cent. In Europe four per cent. There are times the farmer must have some to meet his calls. Will you forever bow the knee to old one and half per cent? or will you unite in business manner with others of the toil and turf to redeem yourselves from thralldom?

And victory won already!

Your Club has mooted the question of united trade at the most accessible point, and proposes bids for such trade. Already the merchants have proposed handsome figures below the standing prices, from 3 to 2½ per cent. above cost and freight.

Farmers of Branch township! Every one of you join your Club. Avail yourselves of these cash chances pointed out. Grab hold of the chain there in the swing and help pull the car of progress out of the mud and mire of four thousand years.

All of the above is respectfully submitted, brothers in the furrow, by your Committee.

H. B. Davis.
Wm. Warder.
S. M. Gallup.

Stanislaus County *News*.

San Joaquin Farmers' Club.

Club met at Pioneer Hall last Saturday afternoon, Captain Thomas E. Ketchum in the chair. Mr. Phelps was elected Secretary, *pro tem*. Mr. Fairchild, a farmer who resides a few miles from this city on the Waterloo road, addressed the meeting at length and urged that the club should incorporate and thereby fix positively some business character. He thought it would be far better to let the old thing—the old club organization—fall to the ground, and to begin anew. He said that heretofore he had never gained any information by attending these meetings, and he seriously questioned the fact whether or not anybody else had been instructed or edified by the action or proceedings of the club. He wanted the old, purposeless, insignificant, and absolutely useless and wonderfully wordy old organization to be totally wiped out, and pledged his adherence to the society and to its interests, provided that it should be formed in a satisfactory manner. He thought and urged that a new start would give the club life and character. Mr. Paulsen, of Stanislaus county, heartily indorsed several propositions advanced by Mr. Fairchild, and expressed briefly, his belief that it was necessary to take some steps to give positive character to the business and transactions of the club, otherwise little or no interest whatever would now or at any future time be taken in the matter. Mr. Phelps, a farmer who resides near the city and who is one of the pioneer settlers, stated that he was authorized to tender the resignation of Dr. E. S. Holden, as President of the club. The resignation of Dr. Holden was accepted. At this juncture of the proceedings Captain Ketchum expressed himself in opposition to the arguments advanced by Mr. Fairchild, and further asserted that he believed the club had been influential in preventing the taxation of growing crops during 1872. He thought the farmers should join hands in lawful endeavors to protect themselves. He wanted a club organized on such a basis as would warrant it being kept lively, full of business force, and at the same time attend to everything, and all things that appertain to the general interests of the farming people, and more particularly to those who claim connection with this community. He wanted the club to be kept lively—life and animation was something the farmer wanted—and he thought the club could be made to meet the crisis and deal profitably with all subjects which particularly interested the farming community. Mr. Hitchcock, a farmer who resides on the sand plains, moved that a committee of three be appointed by the Chair to draft rules for the reorganization of the club, on the basis of monthly dues. The motion was carried, and Messrs. Hitchcock, Phelps and Paulsen were appointed as such committee. Mr. Phelps said some had observed that the club had done no good. He thought differently, and conceded with Captain Ketchum that the club had prevented the taxing of growing crops, and had first suggested the outrages in relation to harbor dues, and an investigation had been the result. It was resolved to meet at Pioneer Hall at one o'clock on Saturday, February 1st, to reorganize the club, to which time an adjournment was had.

Napa Farmers' Club.

Club met pursuant to adjournment, Jan. 25, President Fisher in the chair.

The question for discussion was announced "How shall we manage to dispose of our produce to the best advantage."

Mr. Nash said he believed he had a proposition to make that would lead to the accomplishment of the object in view. It was, that the Farmers Clubs should close their doors. Those against whom we are contending know just what we are doing all the time, and are able to counteract us. He had seen Mr. Quinn, of St. Paul, Minnesota, and learned of the character and success of the secret organization that exists throughout the west, known as Patrons of Husbandry. The result of that organization is perfect unity of action. There is no other way to get at this business so as to accomplish anything. All other industries are organized, and other business men keep their own counsel. In Minnesota, and other Western States, farmers had the same difficulty as here, and the plan adopted has been successful.

Mr. Cridley made some remarks in support of Mr. Nash's proposition, showing the disadvantage of having every movement known. The sum of our difficulties is, that we pay too much for what we buy, and get too little for what we sell. So far, the organization of Farmers Clubs had amounted to very little, but he thought they could be made efficient if conducted on business principles. No business man can succeed if he talks too much. We ought to have *done* something long ago. We ought to have had a ship load of grain in Liverpool, and demonstrated the possibility and advantages of farmers shipping on their own account. We ought to have an agent in San Francisco studying all about this grain business, and keeping us posted. Producers, especially of small fruits, get a very small proportion of what consumers pay. Agents in San Francisco make more money by cabbaging than by commission. He believed that by co-operation of farmers, all this could be changed; and if they would establish an independent agency in San Francisco, they would soon find out that commission merchants are making more by a scratch of their pens than the farmers are by hard work. Produce of all kinds is taxed just as much as it will bear without absolutely prohibiting production. He moved that a committee be appointed to devise a plan of co-operation, and that other clubs be appointed to join us in making it work

Mr. McClure thought we were a little brash in making wholesale charges against the commission men. Doubtless *some* do make more by returning light weight, false sales, and other illegitimate tricks of trade, than by fair commissions; but there are *some* honest men among them. Still, he thought and hoped that some good would grow out of Mr. Gridley's proposition. As to the policy of turning the Farmers' Club into a secret society, he had a doubt. We do nothing here that we need be ashamed of; and if we say or do anything to benefit others, why not let them know it? Yet, there is some reason why secret societies keep up better than others. He hardly thought it worth while to talk about the difficulties with which farmers had to contend, unless some efficient plan were put in execution to overcome them. As it is, every man is for himself, and each one buys and sells on his own judgment. That would be so anyhow.

Mr. Fisher said this question had all been discussed before, and the result was the organization of the Farmers' Union. He expected such information as farmers needed should come through the Secretary of the Union. Thought we could accomplish our ends without a secret organization. Farmers, being scattered abroad, do not keep posted as they ought, and, hence, are easily deceived. Speculators, who make the markets a study, often take advantage of them. It would be a good idea to send an agent to the center, at certain seasons of the year. We want foreign information that can be obtained in no other way. Even if nothing should be done in that way, the Club meetings are profitable in that they afford a stimulus to the members, cultivate a fellow feeling, and are sources of useful information. We could try experiments and improve our methods of agriculture, if nothing more.

Mr. Nash said he felt confident that the secret system would be adopted. This "every man for himself" is just what we are trying to overcome; we want to unite farmers to work together, for their *mutual* benefit. In Minnesota, if farmers wanted plows or machinery, or groceries or dry goods, they made out their orders and sent to headquarters and they were filled at wholesale prices. They had to pay no intermediate profits, but saved that amount to put in their own pockets. They also admitted their wives and daughters to membership. When the system is understood, it will be adopted here.

Mr. Fisher said he didn't see why we should keep our business so secret. He wanted every man to get all the benefit he could out of the Club, whether he was a member or not. The question before us is very simple: How shall we dispose of our products to the best advantage? It is a question of good management—nothing more. We need to study the science of management. With reference to middlemen, he had no doubt of their honesty, but we want to get rid of them altogether.

Mr. Gridley, referring to his proposition again, illustrated his idea by stating how grain speculators managed their business. They send agents through the country and ascertain the exact state of the market. Through farmers' clubs, well organized, in connection with the Farmers' Union, the same information might be put in possession of every farmer, and all would be prepared to take advantage of it.

Mr. Saul, spoke at some length—showing by a comparison of the Liverpool and San Francisco markets, how farmers are wronged by speculators. He thought that in another year, when the true state of affairs became known abroad, that these local speculators would not be able to manipulate things so successfully. Certainly, the commerce of the world is not to be controlled by a San Francisco Ring.

In the matter of marketing fruits, he said it was very hard to effect a combination among fruit growers. If they would unite, they might just as well have a wharf of their own, a market of their own, and supply consumers from first hands having a reliable man who should attend to the business for them, as not. Wharfage and others expenses coming in a lump, would be much less than now. *It can be done*, consumers in this city wonder to see choice fruit wasting in the country; but with present tariffs on it, it does not pay to handle. By the closest management fruit dealers could barely make a living; but if they would establish a depot of their own in the city, where consumers could buy without paying several enormous commissions and profits, they could dispose of all their fruit at paying prices. He could'nt see why farmers, wheat growers, might not store their grain in their own warehouse, ship on their own account, import their own sacks. Why, the storage that the farmers of Napa county pay in one season, would build a warehouse large enough to hold all their grain.

Dr. Lockwood, Secretary of the Vine Growers' Association, wished to make a statement before the Club. He had received reports from the Agricultural Congress, lately in session at St. Louis, with a form of petition to Congress, that some action might be taken in view to furnish systematically crop reports; also a request that all organizations throughout the country send representatives to the next Congress, to be held in Chicago. He also presented to the Club for distribution several packages of seeds from the Department of Agriculture.

Mr. Fisher regarded it as a part of the business of the Club to collect reliable information as to the state of the crops and forward it to the Farmers' Union.

Mr. Paris Kilburn expressed surprise, in view of the importance of the organization, that all the farmers of Napa Valley were not present.

Club adjourned to meet again in two weeks (on the 8th of February).

G. W. Henning, Sec'y.

Prof. Kenzie, of the Michigan Agricultural College, says there is a much larger amount of ozone in the atmosphere this fall than for many years past. White paper, chemically prepared, turns perfectly blue in six hours, by the action of ozone in the atmosphere. This excess of ozone is supposed to superinduce catarrhal diseases. Will the Professor also kindly tell us how to *de-ozonize* the atmosphere, and thereby exorcise the epizooty.

The Patrons of Husbandry propose to build a railroad across Iowa. We hope they will continue it to the ocean.

Agricultural Notes.

CONTRA COSTA.

Ledger, Feb. 1: An Immense Crop.—It is truly astonishing to think of the vast number of acres that will be sown to grain in the San Joaquiu valley this season. For more than a hundred miles southeasterly from Antioch one sees nothing but broad green fields of wheat. In the rocky Atlantic States each farmer sows as much wheat each summer as he has dressing for the land—no more. Probably two or three acres would be the average of wheat fields in New Englaud. Here farmers work upon a broad basis. Men invest their all and trust to Providence and the rain for the result. If the season proves favorable, he reaps a fortune; if otherwise he waits for another year and tries again. Altogether, farming in California may be regarded as gambling. One of the largest grain-growers in this vicinity this seasou is T. O. Carter, who, in company with M. Homberg, a well known merchant and old resident of Antioch, and J. W. Pinkerton, superintendent of the coal company at Pittsburg Landing, is putting in five thousand acres of wheat—a portion on the New York Ranch and the remainder near Banta's Statiou. A large portion of his grain is looking finely, being six or eight inches high. Nearly the whole of the Marsh grant, coutaining thirteen thousand six hundred acres, is sown to wheat, as well as the large level scope of country between this ranch and the Poiut of Timber. The season thus far has been unusually favorable for grain, and with a few spring showers we shall have every assurance of a bounteous harvest.

MARIN.

Journal, Jan. 30: Cattle for Dairy Use.—If you have fine, rich meadows of nutritious grass, you will do well to get fine, large cows of even extra stock. Keep them well, and they will pay you for extra care. But if your grazing is poor, scant, and wide spread—particularly if it be hilly—have small cows. If sometimes your stock get very poor, theu do not mind much about improved stock. You will labor in vain to keep it. The quality of fiue horses and cattle cau only be kept up by good feed and attentiou. A cow that weighs eight hundred pounds has that weight to carry about with her. If she climbs hills and goes far after feed, it takes just so much grass to keep up this exertion, and there is none for milk till that is supplied. A cow of four huudred pounds will eat just as fast, waste less in travel, and begin to make milk before the other is half supplied with waste. When you get better pastures, improve your stock.

NAPA.

Reporter, Feb. 1: The Cork Oak.—A few years ago, the Agricultural Departmeut distributed to various sections of this State acorns of the cork oak, to see whether there was soil aud climate adapted to the growth of this tree. A correspondent to the Department writing from Alhambra, Cal., says that trees in that section have done well; and that a uew supply of seed would be gratefully received aud used in view of prospective profitable results. This oak grows only iu a few localities in the world. If it be established as a fact that California is one of these places, its cultivation here will become a most importaut branch of industry. The people of the State will await with interest the further developments in this experimeut.

Another Big Fish.—Johu B. Hamett, on Weduesday evening, caught a sturgeon with a common codfish hook, which weighed 150 lbs. According to this gentleman, it is uot the size of the fish that breaks the hook, but the awkwardness of the angler. This we believe, having heard of an Irishman who caught a salmon weighing 399 pounds with a trouthook.

NEVADA.

Republican, Jan. 30: The Grass Valley *Union* informs us that the fruit trees iu that locality are putting forth their buds, unconscious that it is only mid-winter. The fruit trees iu this section know better than to do such a foolish thing, and refuse to "bud," notwithstanding the seductive sunshine we have been having. The fruit trees hereabouts are mostly of the pine variety, and never fail to yield a good crop of lumber, shingles, railroad ties, charcoal etc.

Sleighing.—People living at Sacramento, San Francisco, aud other localities where Nature refuses to yield her bountiful, beautiful snow are informed that they can have all they desire of the luxury by comiug to Truckee. By coming up hither they can indulge in genuine sleigh rides without freezing to death. There are plenty of sleighs and horses here also which can be had.

Local Brevities.—The Nevada Ice Company have commenced storing ice at Geo. Shaffer's reservoir three miles from towu. Last night they had secured six hundred tons. The ice there is eleven inches thick, and of good quality.

The Indians hereabouts are considerably painted up, but whether they are on the war path or not is a question. It is the general wish here that they would leave for the Modoc country at once. They are a greater nuisance here than the Israelites were to the Egyptians.

Trout from Lakes Tahoe and Douner are being shipped to Sacramento where they readily bring from 35 to 40 cents per pound.

Feb. 1: Snow and Rain.—The snow and rain of winter are indispensable to California. The summers may be ever so dry and warm, it matters not, if the winters are moist. Deep snow piled up on the crests of the Sierras is an infallible sigu of a prosperous season to follow. It promises bouutiful harvests of grain, gold, wool and wine. It means bread and meat and prosperity for all. For weeks past the farmers and miners have anxiously watched the changes of the weather and louged to see the rain descending upon the valleys and the snow upon the mouutains. The lateness of the season led them to fear that a dry season was in prospective, with its dearth of crops for the farmer and gold for the miner. The storm of the last three days has dispelled all such fears. The rain has descended copiously throughout all the valleys of the State, and the snow lies deep on all the higher portions of the Sierras and the Coast Rauge. A season of plenty and prosperity is assured.

SONOMA.

Flag, Jan. 30: Farmers' Club. — Last week we noticed the fact that a call was being circulated by W. H. Moss for a meeting of farmers in this place next Saturday for the purpose of forming a Farmers' Club. Mr. Moss reports that he met with so little encouragement from those who should give the most aid that he became disgusted and abandoned the project, until such time as the farmers should evince a disposition to do something.

Bee, Feb. 1: Fruit trees are already blossoming hereabouts.

Anomalous.—One would think it ought to be like "carrying coals to Newcastle" to hear of an urgent demand for fresh butter, vegetables and other household necessaries, commonly raised on well-conducted farms, in a town situated in the centre of a farming country, as Cloverdale is, and that such necessaries canuot be had here for love or money. But this is absolutely the fact. There is not a roll of fresh butter to be had in town. This is not a very encouraging commentary on the enterprise of the neighborhood. A good dairy in the vicinity of Cloverdale would pay well.

STANISLAUS.

News, Jan. 31: The Farmers' Club of Branch township, distributed, at their last meeting over two hundred packages of vegetable seeds—four quarts of Hopeton Canada oats; one quart Reedy's upland cotton seed; four packages of jute—by favor of J. D. Spencer, for which he was voted the thanks of the Club. By former distribution, eight quarts of white winter wheat, choice red seed corn, six copies of agricultural reports, thirty copies of September crop reports, and many copies of our excellent county paper, through the favor of the editor, containing reports of the Club — all within three months. S. M. G.

SANTA BARBARA.

Press, Jan. 25: Rather Warm.—Sitting in our office with our coat off, a June sun pouring a flood of light upon the green hills and the sparkling ocean which greet our eyes from the open door, with the thermometer at 74 deg. and the hygrometer at 62, indicating a very dry, warm atmosphere, it is difficult to realize that this is mid-winter in Santa Barbara, that this beautiful June day is January 17th, and that in many of the most populous parts of the country the people are suffering, and some are perishing, with the cold. In fact, we regard this as rather warm weather.

A Good Fruit Year.—All the indicatious favor the prospect of a good fruit year in this part of the State. Apple, peach and pear trees are in better condition than for years past for giving a good yield. As a much larger number are coming iuto bearing than ever before, the supply will be more nearly equal to the demand.

A Remarkable Apple Tree.—A day or two since, our attention was directed to a very singular phenomenon in fruit bearing, that for some years past has been exhibited by an apple tree at the south end of the residence of Don Fraucisco de la Guerra, brother of the District Judge Don Pablo de la Guerra. The house stauds just in the rear of the store of F. W. Frost & Co., and can be easily seen by anybody interested in such matters. The tree is eight years old, of ordinary growth, about thirteen feet high, and bears three crops of good apples annually, though in fact it has on it ripe fruit, half grown fruit, and blossoms the whole year through. We picked an apple from the tree on Wednesday, and are certain that the fruit is good. This apple tree seems to be in a perfectly healthy coudition, having by some freak of nature assumed the habit of the orange and lemon, and even attempted to outdo them in fruitfulness. We did not learn the history of the tree, nor do we know the variety to which it belougs.

SAN JOAQUIN.

Indepenaent, Jan. 31: Chiccory Factory.—The three hundred and twenty-eight barrels of chiccory mentioned in last Tuesday's issue as shipped upon the Hattie Eickett from the Stockton factory, was from the San Joaquiu factory, which is located on the right bank of the San Joaquin river about thirteen miles from this city. The establishment has recently been erected upon the ranch of C. H. W. Brandt, and is in operation at the present time. The members of the company consist of five energetic gentlemen, and from the present indications they are well pleased with their euterprise. They expect to mauufacture for market one hundred tous of chiccory during the present season. The manufacturing interests of San Joaquin county are now attracting considerable attention, and such enterprises will doubtless fully remuderate those who invest.

SANTA CLARA.

Mercury, Jan. 30: Orange Culture.—Mr. C. J. Fieldsted, of this township, brought to this office on Friday a cluster of large, fine and ripe oranges, equal in appearance to the best Los Angeles oranges. These oranges were grown upon Mr. Fieldsted's place, just in the foot hills, near the lower edge of the warm belt, about four miles east of this city. The tree upon which they were grown is fifteen years of age, about twenty feet in height, and has been in bearing for several years. It is now loaded with fine fruit. There is not the least doubt that orange culture could be made a success in this section. The orange is of slow growth, and the mistaken idea has prevailed that our climate is too cold for it. Orange trees in this city were not injured by the frost of December, the heaviest ever experienced here. In the adjacent hills there is no frost to speak of, and the soil and climate are all that could be desired. Mr. Fieldsted assures us that he has bauanas growing and doing finely at his place.

SACRAMENTO.

Folsom *Telegraph*, Feb. 1: To Germany.—Eppinger, of Shingle Springs, who is a large dealer in El Dorado wines some time since shipped some wine to Hamburg, which was sold at once and said to be superior by the buyers, to the German wines. Last season Eppinger bought over thirty thousand gallons of wine from the wine makers in the vicinity of Shingle Springs.

To Japan.—Robert Chalmers, of Coloma, not long since shipped a large number of cases of his excellent wines, which met with a ready sale.

TEHAMA.

Sentinel, Jan. 25: Personal.—Professor W. A. Sanders has been in town a portion of the week. He has just received and is now superintending the setting out on his farm in Sander's Bend, four miles north of Red Bluff, some choice vines, among which is the "Malaga Raisin" grape, the finest in the world. All of which were purchased by Mr. Sanders while on his European tour last summer. He visited Malaga, in Southern Spain, to witness the process of raisin culture and manufacture, and to select from the choicest and best raisins and other vines, for his California home. The Professor brings a fund of knowledge in grape culture, which would be interesting and very useful to grape culturists of California. If the Professor keeps up the lick for a few years to come he has for a year or so past, Sanders Bend will become a perfect paradise.

TULARE.

Delta, Jan. 30: The Fence Law.—The people of this Senatorial district still feel the burden of the feuce law, and the whole community are realizing its blighting effects. Many thousands of rich acres that would have been seeded to grain had there been proper legal protection to crops, will lie sterile and waste until the herd law is conceded to these as to the other agricultural counties of the State. Hundreds of pre-emptors who would like to settle here with their families and add to the taxable property of this county, are prevented by this relic of barbarism which was retained wholly through the influence of the old Democratic organization at home, and the man of its choice in the Legislature.

YUBA.

Appeal, Feb. 1: Our Oranges.—If there are any who think oranges do not flourish in this locality, let them take a stroll along D or E street, or beyoud the Fifth street slough, and their doubts will be removed. Straugers particularly, visiting Marysville, as they roll from the cars down D street, remark the bright oranges which adorn the grounds of Mr. Nightingill and others, and almost imagine themselves among the tropics, where the orange groves and spices shed their aroma and lull the senses. Why do uot many others in this section, who have abundance of land, turn their attention to the orange and lemon, when it has been ascertained that they flourish and mature quite as well here as in some of the counties further south?

Professor Loomis, of Yale College, reports in the *College Courant* the weather in New Haven as having been colder, with two exceptions, during December than in the corresponding month for ninety-three years. The mean temperature was 22.8 degrees. The mean temperature of December, 1831 was 17.2 degrees, and of the same month 1790, 22.4. Think of this, ye people of Marysville who are shivering under the fruit laden limbs of your orange trees—and weep.

OREGON.

Sentinel, Jau. 25: Taking the winter now past as a criterion by which to judge of the climate, we have no hesitancy in saying that whoever casts his lot in our section, and remains long enough to become acclimated, will be pleased with our winter weather. The adaptability of Oregon winters to stock and sheep raising has already been proven—it would be idle to now argue that point. Our population is made up of men from every variety of climate, and it seems as if with one accord they voted this the favored section, the fulfillment of their hopes, where the advantages of nearly every clime, with but few of the disadvantages, are to be found.

Warm Spring Ranch, Jan. 18th, 1873: Jan. 1. Weather blustering little, some raiu. Jan. 2. Snowed 2 inches, no wind and warm. Jan. 3. Snowed in the morning, west wind in the afternoon, rather disagreeable. Jan. 4. Snowed about 6 inches, warm at night. Jan. 5 and 6. Warm rain which took the snow off the low hills. Jan. 7. Little rain, some fog, and freezing ice ¼ inch thick. Jan. 8, 9, 10. Clear, warm, and pleasant. Jan. 11. Rain but very warm. Jan. 12 and 13. Snow in morning, clear evening. Jan. 14. Cloudy, snowed very little, pleasant.

The Wallowa river is very low, no snow on the low hills and but little on the bottoms, grass plenty, and stock plenty, and the stock doiug splendid. There has beeu little if any feeding done.

Messrs. Bramlet have over 400 sheep which they have fed a day or two in the last snow. All the sheep in the valley are good average mutton. Wallowa is adapted for sheep, there being greater variety of grasses and weeds, high mountains to break the wiud. We the settlers are well pleased with the Wallowa if we are living in log cabins half finished, dirt floors, and short rations of bread, sugar and syrup. We have a singing society, formed in lower Wallowa valley which gives an air of civilization, etc., etc.

Newspapers are scarce articles and we don't know anything about the game law, or bounty ou cayote scalps. Elk, deer and cayotes are tolerable plenty.

WASHINGTON.

Walla Walla Union, Jan. 18: Wheat. — The Portland papers insist that wheat is worth only about $1.08 per bushel, while persons further up the valley insist that it is worth more. Some lots have beeu sold for $1.20 per bushel, or $2 per cental. But taking the Portland quotations of $1.80 per cental, or $1.08 per bushel, and allowing thirty-eight cents per bushel for sacking and transportating from here to Portland, then we find that wheat ought to be worth seventy cents per bushel here. And it would sell for that if it could be got to market. There is a prospect, however, that it will keep up and possibly advance before next harvest. There is still considerable wheat in this valley, and when the boats commence running in the Spring it is probable that wheat will sell here at about 75 cents per bushel.

Storing Flour.—We see that several of our business men are storing away large quantities of flour. As wheat and flour have advanced in the Portland market very materially within a few weeks, aud seems still on the rise, it is fair to presume that by the time the boats begin to run again it will be sufficiently high below to justify shipment from here to Portland. It would pay now if there were means by which it could be got to market.

Bacon.—Until the past season we have always had to purchase the greater portion of our bacon in the Willamette valley; but from this time on the order will be reversed. We are informed that some of our heaviest bacon raisers intend to ship theirs to Portland as soou as navigation opens. Our people have just learned that instead of sending off wheat and importing bacon, it pays better to feed the grain to hogs and then ship the bacon.

Patents & Inventions.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[Reported Officially for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Feb. 4th, 1873.

For Week Ending January 21st, 1873.*

Rotary Cultivator.—James W. Milroy, assignor to self, Wm. R. Michener and C. L. Howard, Haywood, Cal.

Oyster Tongs.—Isaac Smith, Bruceport, Washington Ter.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Weather Report.

Sacramento, Feb. 5th, 1873.

The dry interval, as predicted in our last statement of the rain, obtained until the 30th of January. Since then we have experienced a succession of cloudy and rainy days to date, giving a total of 1.910 inches of rain. At the present time of writing, 9 A. M., the barometer reads at the maximum for the season, and the wind is from the north. Although still cloudy, we have every reason to think that the storm is over. We hear from Truckee that the snow-fall measures seven feet.

Thos. M. Logan.

Remedy for Epizootic.

Eds. Press:—As the epizootic is gradually approaching this State, it has occurred to me that the following remedy, used by President Grant, very successfully in his stables, should be generally known. It is very simple, consisting of one teaspoonful of chlorate of potass, in a bucketfull of water, twice a day. This is for four horses. Yours truly,

Wm. Gouverneur Morris.

England wants 100,000,000 bushels of this year's wheat crop to feed her people on, besides a goodly quantity of pickled meats, about a cubic mile of French eggs, and other things too numerous to mention. No wonder the English emigration business is so brisk.

Farmers in Calhoun Co., Michigan, are complaining of the scarcity of water. Not enough snow has yet fallen to relieve the difficulty. Some farmers have already had to commence hauling water for their stock.

Our Agricultural Interests.

J. Ross Browne's Address.

J. Ross Browne delivered a lecture on the agricultural interests of California before the Oakland Farming, Horticultural and Industrial Club on Friday evening, Jan. 10th. He said:

In new countries, as in California, where the means of access are in the first instance limited, population is generally attracted by the discovery of sources of wealth offering immediate and extraordinary rewards. Gold was the magnet that brought to our shores the pioneers of 1848 and '49. But wherever land is suitable for cultivation, experience shows that even the fascinating pursuit of mining must eventually yield the precedence to agriculture.

A significant illustration of our progress in this direction may be found in our mining reports and market reviews. In 1849 the actual yield of gold in California was $10,000,000; in 1850 $35,000,000; in 1851, $46,000,000; in 1852 $50,000,000; in 1853 $60,000,000; since which date it has gradually decreased to an average annual product of about $20,000,000.

During the years named we imported from the Atlantic States and South America most of the supplies necessary for the support of our population. Contrast this with our agricultural products during the past year. The total value of the wheat, barley, oats, hay, wine, wool, fruit, butter, cheese and hides produced in California, in 1872, is estimated at $75,000,000, of which our exports will probably exceed $50,000,000. The wheat crop alone reaches about $25,000,000, being an excess of $5,000,000 over our gold yield; and the total of our agricultural products exceeds by about $10,000,000, the entire yield of the precious metals throughout the United States.

These astounding results have been produced by the hard labor and individual energy of our farming population, numbering in the aggregate less than 24,000 souls. When we consider that as late as 1860 the total area of land in cultivation was only 937,133 acres, and that in 1871–2 it reached 3,653,183 acres, our progress seems incredible. And yet how little has been done! California, according to a late report of the Commissioner of the General Land Office, contains an aggregate area of 120,947,840 acres, "of which not less than 89,000,000, including swamp and tule lands capable of reclamation are suited to some kinds of profitable husbandry. Of these over 40,000,000 are fit for the plow, and the remainder present excellent facilities for stock-raising, fruit-growing and all other branches of agriculture. This agricultural area exceeds that of Great Britain and Ireland, or the entire peninsula of Italy." Yet England contains 332 inhabitants to the square mile, Ireland 225 and Italy 250; while California, estimating its population at 600,000, contains only a fraction over three, and of this infinitessimal population five-sixths live in cities, towns and villages. When I say how little has been done, I mean to say how much remains to be done—how many millions of acres to be subdued and cultivated and made a source of unbounded prosperity to millions of human beings.

The Mining Interest.

An agricultural population of 24,000 has produced $75,000,000, almost entirely without the aid of capital. It is in great part clear profit to the State. Looking at that branch of industry peculiarly formed by Legislation and by financial operators, what do we see? The latest Mining Stock Review reports that the dividends on all the mining stocks deemed of sufficient importance to be quoted on the Stock Board, only exceed the assessments for 1872, by *one and a half millions of dollars*. While individuals have made money, I fear a true record of all the mines worked would not show much better results. If we consider the amount of capital invested in mining, in machinery, sluices, mills and dead-work, and the estimated population of 50,000 actually engaged in that branch of industry, and compare the results with those achieved by our farming population, numbering less than one-half, I am sure that it will be admitted that the cow counties have done their share in contributing to the wealth of the State.

No banks or bank rings have stood ready to take shares in their enterprises and back them by heavy loans; their stock has never drawn forth the millions hoarded on California street; they have never subsidized Legislatures to reduce their taxes to more nominal rates; very few accommodations have been extended to them either by capitalists or by Legislators, and yet to-day the actual cash results of their industry add more to the wealth of the country than all the mines of all the States and Territories in the Union.

Had agriculture received the same encouragement given to mining and stock speculations; had the farmers enjoyed the facilities so freely granted by our financial potentates to the builders of tunnels and quartz-mills and the dealers in mining scrip; had they possessed the secret of raising the wind on prospective wheat and wine and wool crops known to those enterprising gentlemen, whose checks on prospective diamond crops are so promptly honored, we might now instead of having three and a half millions of acres under cultivation, have ten millions, and instead of a gross annual product of $75,000,000 we might have upwards of $200,000,000.

I say nothing against legitimate mining. While gambling of any kind is inimical to the welfare of a people, no branch of industry requiring mechanical skill and scientific knowledge to make it profitable can justly be said to contain in itself elements injurious to public morals or the prosperity of the State. Wild and hazardous speculations furnish their own remedy in time, and I venture to hope that the day is not distant when money can be had at reasonable rates for the improvement of our lands and the establishment of manufactures.

Cause of Complaint.

What I consider a subject of just complaint is this: Not that our banks and banking institutions refuse to engage in enterprises which do not come within the legitimate sphere of their business, but that they use their influence to divert capital from investments likely to benefit the country, into such channels as will best subserve the pecuniary interests of the officers and trustees or their special favorites. This is not banking at all—it is simply gambling on other people's credit, if not on other people's money.

Let any farmer who desires to dyke, drain, irrigate or fence his land; to plant a fruit orchard, a vineyard or an orange grove; to go into the business of cotton-raising, silk-growing or the manufacture of beet sugar;—all sound and legitimate enterprises well tested on this coast—let such a farmer undertake to raise money in San Francisco at a reasonable rate of interest, and he will find that the money market is "unusually tight." By working at it a long time, offering ruinous rates of interest, sharing his prospective profits liberally, and giving security to the amount of three to one, he may possibly be accommodated, but I would be sorry to invest largely in his chances. The fact that his enterprise is sound and legitimate is sufficient to damn it. Even now I believe he could raise money more readily on diamond lands than on swamp lands or agricultural enterprises.

It may be said, with some show of reason, that the proper sources for the supply of capital are those having a direct interest in its application, that the farmer who raises wheat should borrow money from the grain merchant; the wool producer from the wool merchant; the viniculturist from the wine merchant, etc. To a certain extent this is now done. Money can be raised on crops actually in the ground, or wool flourishing on the backs of our sheep leaving a very large margin to cover risks; but the difficulty is to get your land in a condition to produce the crops, and to get the crops away when produced without paying consequential damages; in other words, to furnish the two or three hundred per cent. security upon which to obtain the necessary advances of money for the establishment of your business.

The truth is, the grain merchants, the hucksters, the middle-man, the shippers, the railroad men, the sack-makers, the law-makers, the assessors and the tax collectors manage to hold the agricultural classes in a condition of servitude unparalleled in a free country. They are worse off than the Americans in Arizona or the Mexicans in Sonora—of whom the Apaches say that the former make their guns and pistols, and furnish them with uniforms, while the latter raise horses and cattle for them and give them occasional contribution in the way of wives.

Who Gets the Profits.

I have myself seen wheat selling at 100 per cent. more than the farmer got for it; wine retailing at the hotels in San Francisco at $1.50 a bottle, while it sold at Los Angeles for 40 cents a gallon, or 8 cents a bottle; grapes sold at 8 and 10 cents a pound, while the producer got only 75 cents a hundred; and fruit thrown into the bay of San Francisco because the fruit dealers could not get rid of it fast enough to keep it from rotting, at 5 cents a pound, while the fruit growers would be glad to sell it at $20 a ton.

It is said that these things always regulate themselves. Now I question if anything regulates itself. The farmers, viniculturists and fruit growers must combine for their own protection as the grain dealers and hucksters combine for their own profit—otherwise they will continue to labor for the benefit of those, who, however useful as a class, produce nothing.

When we look abroad for assistance we find that foreign capitalists put their faith upon the sagacity of our own financial operators, and will not go into anything rejected or repudiated by them. All I hope is, that some day or other our English friends will derive dividends from their mining investments, and that their purchases of local railroad bonds will prove remunerative. It might possibly encourage them to put some money in the reclamation of our swamp lands. I am sanguine enough to believe that five or ten millions of British capital invested in the purchase and reclamation of lands on the Bay of San Francisco, or in the Valleys of the Sacramento and San Joaquin, would pay even better in the long run than those attractive investments in mines and railroad bonds into which they have been seduced by some of our financial experts.

According to a late report of the Surveyor General of California, there are about 3,000,000 acres of swamp and overflowed lands in this State. If these lands were all reclaimed and under cultivation they would, in his opinion, produce more for a given number of years than all the rest of the land in the State together. To his personal knowledge, eighty bushels of wheat to the acre were raised on reclaimed swamp land in 187-, and he considers it safe to say that the averages of the whole if cultivated, would not fall short of fifty bushels per acre.

I am inclined to think that these estimates are somewhat high. We should bear in mind that the whole of any particular tract cannot be equally well cultivated; that there are local peculiarities in the soil and climate—intervening sloughs, sinks and gaps, heavy winds and other adverse contingencies which under the most favorable circumstances would tend to reduce the average. While the highest average product of wheat in California, taking good and bad lands together—has never exceeded 20 bushels to the acre, it is gratifying to know that it exceeds by seven bushels the average product of two of the best wheat growing States in the Union; and I find by reference to late Australian papers that the averages in that region is not over seven bushels.

Good valley lands in California produce about 30 bushels—reclaimed swamp lands from 35 to 40. Assuming the lowest figure to be within bounds, three million acres of swamp land thoroughly reclaimed and cultivated, would yield 105 millions of bushels. Deduct for cost of plowing, seeding and harvesting, $10 per acre, and we have a net result, at 1½ cents per pound, of $38,250,000—or very nearly double our entire gold product.

Qualities of Lands.

Properly speaking there are three classes of land in California subject to overflow; the Tule lands bordering on our lakes and rivers, the low alluvial valley lands, and the salt marshes bordering on the shores of our Bays and estuaries.

The tule lands derive their name from a species of gigantic rush which grows upon them, forming a mass of roots and fibres that contributes mainly to the growth of the land itself. For centuries past these tules have been burnt off by the Indians, in search of game, during the dry season of the year, and the accretions formed by the roots, mingled with the ashes, together with the deposits of soil carried down from the uplands, have gradually caused them to rise above the level of the ordinary water surface. In seasons of flood, or by the action of the tide, where it prevails, they are of course submerged, unless protected by levees or embankments.

The principal tule lands of California lie along the shores of Kern, Rio Vista and Tulare lakes south, extending thence northwardly in a belt along the San Joaquin River as far as their junction with the tule lands of the Sacramento, which commence above Red Bluff, following southerly both sides of the Sacramento river till they form the great delta in which the two rivers are united.

Near the lakes and high up on the rivers, the land is of a more compact texture and contains more soil than in the delta below, receiving the first and heaviest deposits of earth from the mountain streams and adjacent uplands. The leveling tendency of water would doubtless in time elevate the surface beyond the reach of ordinary floods. Even within the past twenty years a natural process of reclamation has brought within the cultivatable area, many thousand acres of land which formerly produced nothing but tules.

Of the specific value of these lands in different parts of the State it is not my purpose to speak at present; but I may be allowed to express the opinion that wherever the soil is most compact will be better suited to wheat than in those localities where the texture is chiefly fibrous.

Adaptation of Products.

The rich clay lands of this character in the valleys of the Sacramento are unsurpassed for the production of the cereals. They will also grow tobacco, sorghum, beets and various other useful products. Cotton is yet an experiment in the Valley of the Sacramento, and it may be that the spring frosts are too late and the autumn frosts too early to afford much hope of success in the cultivation of that staple so far north.

Within the past few years more attention has been given to the reclamation and cultivation of the tule lands embraced in the delta of the Sacramento and San Joaquin rivers, above Suisun Bay, than to those of any other locality. Peculiar advantages exist here for drainage and irrigation by means of tide-gates. At high tide the water supplied by the main rivers is backed up, and can easily be distributed over the land; at low tide it can be drained off by sluice-gates; and when neither irrigation nor drainage is required the gates may be kept closed, leaving only such outlets as may be necessary for the escape of seepage.

The land is exceedingly rich, being composed for a depth of eighteen or twenty feet of matted roots and *debris* from above, all thoroughly rotted below the stratum of living fibers. But the peaty, or spongy nature of the soil gives rise to certain difficulties in the reclamation which have not yet been overcome.

In some places the inequalities of depth and superincumbent pressure of water cause extensive cracks or fissures to open, erroneously supposed to be the work of beavers; but however industrious beavers may be, they always have an object in their industry, and to suppose them unreasonable enough to dig fissures thirty feet deep and miles in length, merely for pastime, is to slander their intelligence by placing it on a par with that of the beaver-cut theorists.

In these cases, where the fissure is too broad and deep to be easily closed at the entrance, it must be levied around—a process involving considerable expense.

Another difficulty experienced in the reclamation of lands situated in the delta of the Sacramento and San Joaquin arises from the fact that the stoppage of the smaller sloughs and the embankment of the various islands diminishes the area over which the waters of the main rivers were formerly distributed.

It is obvious, therefore, that the larger the area enclosed the higher must be the embankments, the limit being the capacity of the outlets in seasons of high tides and floods for the escape of the water.

Owing to the spongy nature of the soil, the dykes sink considerably after they are first constructed, and even when most compact there is a good deal of seepage from below.

The cultivation of the land also, where there is so little body to it, has a tendency to lower the surface both by the process of decay and the volatilization of the lighter particles. This is especially the case where the tules are burnt, the fire sometimes extending down a foot or eighteen inches below the general level, producing great irregularities and rendering future cultivation more difficult.

Continuous cultivation for a series of years would probably cause such a depression of surface as to render pumping necessary. This of course would be, to some extent, remedied by opening the gates during the high floods and allowing the water to replenish the land by new deposits of sediment. But the floods do not always come at this right time; they might interfere with the growing crops, and the farmer might find it safer to live on dry land at once than take the chances of getting new land deposited within his existing boundaries.

For this reason, I am inclined to the opinion that the tule lands of the Delta are more suitable for grazing purposes than for the growth of wheat. And I believe they would be ultimately more profitable bearing from five to eight tons of alfalfa, timothy or blue grass annually per acre, than they could ever be under permanent cultivation in wheat. Doubtless they will produce ramie, flax, hemp and various other useful products; but their great value consists in the fact that they are naturally the best meadow lands in the world. The experience of Holland shows that there is sufficient profit in the production of good meat, butter and cheese to make a nation rich.

It is now generally conceded that the less the State interferes with private enterprises the better. I am willing to admit that the reclamation of our swamp and overflowed lands is properly the work of private companies and individuals; but it is undoubtedly the duty of the State to furnish all reasonable facilities for the prosecution of this work on a systematic and comprehensive plan, otherwise vast amounts of capital will be expended in vain, and endless litigation will ensue from conflicts of interest in different localities.

The closing of sloughs in one place might cause the inundation of another; a dyke in one district might impose upon another the necessity of an expensive system of levees and ditches, not otherwise required. There are questions of individual rights to be considered; questions of county rights; questions of State rights; questions of navigation, which involve the rights of the public at large.

Legislation Needed.

The Legislature should establish a permanent Commission, to consist of at least three of the ablest engineers in the country, whose duty it should be to make a thorough and comprehensive survey of all the lands in the State subject to overflow; to agree upon a system of irrigation, reclamation and drainage, which would be uniform in its operation and beneficial to all; to furnish companies and individuals desirous of engaging in works of this kind with such data and advice as would prevent the useless expenditure of time, labor and money, and ensure a correspondence in the various parts of the work, without which success must always remain partial and uncertain. This is properly a State work, and has been done by all intelligent States and Governments.

The present system is both expensive and inefficient. It is useless to build an embankment four feet high to keep out tides and floods which may rise six inches above it, or which the construction of contiguous embankments may require to be eight feet high. No reclamation is cheap unless it is safe and permanent. Taking chances for crops is not a profitable business in the long run. I do not consider that any levee on our delta lands, less than nine feet high with a base of thirty feet, can be relied upon, although smaller levees may answer the purpose in favorable seasons, and before reclamation becomes general.

The usual estimate of cost is $5 an acre. Sherman Island has had $20 an acre expended upon it, and is not thoroughly reclaimed yet. The cost varies, however, in different localities, depending upon the area reclaimed and other local circumstances.

It is gratifying to know that extensive reclamation works are now in progress on the various islands of the Delta. Twitchell, Grand, Brannan, Andrus, Tyler, Statten and Bouldin islands are nearly all enclosed and will soon be under cultivation. All this has been done by private enterprise. I believe that every acre of these lands will be worth $100 and upwards when completely reclaimed.

Glancing next at the tule lands of the San Joaquin Valley, we find that they are equally rich but in consequence of their comparative remoteness and the greater difficulties of reclamation will not be available so soon. Here larger capital will be required and more extensive and costly works. The country adjacent to the lakes being flat and the drainage not so easily effected, reclamation must be general and a system of canals will be required. Fortunately the San Joaquin Valley Canal Company have taken this matter in hand and while bringing the waters of King's River, the Merced River, and the waters of Tulare and other lakes under control, for purposes of irrigation, will greatly facilitate the process of reclamation. The Southern Pacific Railroad now extended beyond Visalia, will afford means of transportation for the products of the country, and altogether the outlook is encouraging. Before many years cotton, tobacco, ramie, etc., will be among the most profitable staples of this State.

Other Marsh Lands.

I shall conclude my remarks on this branch of the subject by a brief reference to our salt marshes.

The lands bordering on our bays and estuaries are composed of deposits of silt and other matter from the rivers and the sea. Vegetable mould and fine earth are washed down from the uplands, and the sea contributes weeds, grasses, sand, shells and animalculæ. These form what are called the salt marshes. Professor Cook, of New Jersey, says, "the worth of these lands when properly reclaimed can hardly be overestimated. Wherever there is a sufficient amount of clay or mud mixed in with the grass roots and other organic matters of the marsh, it will make the soil inexhaustibly rich." General Alexander, Engineer in Chief of the United States, on the Pacific coast, says: "Their complete reclamation is entirely practicable at small cost. * * * They are in no danger of floods. A dyke four feet above the surface will afford complete protection even against storm tides. When this land is once relieved from salt water it may be freshened sufficiently for grasses in a single season, and for grain and vegetables in two years. This I know from experience." It will certainly be much more valuable than the adjoining uplands, for it will be greatly more productive.

Professor Henry Mitchell, chief in Physical Hydrography, of the United States Coast Survey, says: "Marshes reclaimed from tide waters are the most fertile and enduring of all soils." Professor Davidson, Chief of the Coast Survey, on this coast, says: "I am satisfied that these lands when reclaimed, will be productive and valuable and that eventually all the marsh lands bordering on the bay will be reclaimed."

Capt. A. F. Rodgers, of the Coast Survey, who made the actual surveys of these lands, and who is personally more familiar with them than any person on this coast, says: "All the marsh lands on the bays of San Francisco, San Pablo and Suisun may be easily reclaimed, being above the level of ordinary tides, by a system inexpensive compared with the large margin of profit evidently offered by the unexampled richness of the soil and the rapid development of the country."

Notwithstanding the best engineering testimony as to the feasibility of reclaiming these lands at a moderate cost; notwithstanding the examples furnished in New Jersey, where land worth comparatively nothing, advanced in a few years from $50 to $500, $1,000 and even $2,000 an acre; notwithstanding the experience of Holland, Great Britain, China and other countries, there are men of influence in San Francisco who will tell you these lands are of no value and they can't be reclaimed. The salt can't be got out; crabs will bore through the levees; your dams will sink, or some other casualty will happen—the toads or grasshoppers will trouble you.

I marvel at the intelligence and enterprise of the leading men of San Francisco. Outside of Montgomery and California streets, my confident opinion is, they know less about the resources and capabilities of their own State than the Hindoos or the Hottentots.

Straw as Fuel.

We are always pleased to note home improvements, or home inventions, says the *Pajaronian*, especially when those improvements are lasting, and the inventions of practical value. The above machine lately invented by Mr. D. Morey, of this place, a practical machinist, is one of the best inventions for saving labor and money, especially to farmers, that has ever been before the California public. The device is exceedingly simple in its construction, made of heavy sheet iron and weighs when completed, only 75 pounds. All that is necessary to put the machine in working order is to open the furnace door, attach the machine by a hasp to the door-catch, and two little rods of iron to the hinges of the door, when it is ready for operation. It may be left so attached for any length of time or if desired to remove it, a minute's time will suffice, when the regular door may be closed. The object of this invention is to utilize straw as fuel for the purpose of generating steam, in place of wood or coal.

Straw has been proven to be a superior fuel for the threshing engine, when properly used. It makes a very hot fire, the whole interior of the furnace being filled with a roaring flame, which sweeps through the flues and heating the water in a remarkably short time. To run a threshing machine it requires only one-twentieth part of the straw from a separator, and a boy twelve years of age can attend to the straw feeder with ease, or for that matter the engineer will have no difficulty in attending to the feeder himself.

There are also many advantages for using straw; there are no sparks, and of course there is no need of a "spark-arrester"—no danger of setting stacks or stubble on fire; furthermore, the fire from straw does not burn the iron as does that from redwood; there being no cinders it is very little trouble to clean the flues.

A few days ago a very satisfactory trial was had of the straw feeder on a Wood & Mann 12-horse power engine, now sitting in the school lot. The engine had been standing idle for some time, the boiler was well filled with water, and with one bale of oat straw, weighing perhaps 175 pounds, and damp at that, steam was "got up" in thirty-six minutes, and steadily run up to 75 pounds. The pump was on, and a huge timber was placed under the fly wheel and a heavy pressure brought to bear, and yet it was no trouble to run the steam gauge still higher. Mr. Morey has expended considerable money in experimenting, but his labors have now been rewarded by the invention of a machine, simple in construction, that will revolutionize in a great measure the threshing of grain, and save hundreds of thousands of dollars yearly to the farmers in the way of wood, especially in those localities where wood is hauled a long distance.

Useful Information.

Philosophy in Extinguishing Fires.

It has been remarked that while fire apparatus has been constantly improving, no progress has been made in the method of attacking a fire. On this point, Rev. Dr. Hill, not long ago President of Harvard College, has this to say:

Nearly everybody is in daily need of kindling fires; but few have ever need of quenching a fire. Hence most people know that fire spreads by heating adjacent fuel, and that, in heating adjacent fuel, the heated air and burning gases of the fire are much more efficient agents than the radiant heat; in other words, that to get a fire to spread rapidly it must be lighted at the bottom or to windward, or where a lateral draft may be created by the fire; while few people know that to quench a fire the same principle is generally available, and the quenching is most rapidly effectual if it can be begun at the lower part of the fire or at windward, or where a draft strikes it.

"Of course in a great conflagration it is often impossible to avail oneself of these facts, but at the beginning, while the fire is confined to one or two houses, it can geuerally, unless there be gunpowder or benzine in the buildiug, be subdued by a resolute plucky adherence to the maxim 'Play low.' When a building is well on fire and pouring a stream of flame and burning cinders out of its roof, the temptation to play on the roof is very great, and a majority of firemen yield to it; but the minority who resist the temptation, and direct their streams into the lower story of the building, presently have the satisfaction of putting out the fire. If the gas pipes under a mass of burning ruins be open or broken, the effectual remedy is to shut off the gas in the main pipe. The blazing roof is the burning gas, the gas is generated from the heated timbers, the heat geueratiug it is from the burning stories below, tho wind currents carrying the blazing cinders to adjoining roofs are produced by the same heat below; quench that lower story, and you have put out the fire at the gas factory and cut off the supply of gas, and the steam from that quenching has also gone up and deadened the fire even to the roof.

Sharks' Teeth.—During the rccent session of the National Academy of Sciences, Prof. Agassiz read several papers, one of which related to the natural history of the sharks and skates, and described respectively their methods of dentition, reproduction, and growth.

He gave an explanation of the fact that so many sharks' teeth are found in deposits similar to the South Carolina bone-beads, by saying that every adult shark had shed fifty times as many teeth as he possessed. The teeth of sharks and skates do not increase iu number as they advance in age, but are merely replaced by larger teeth, which fall out in their turn, to be replaced by others still larger.

A New Ore of Silver has been fouud at Fredereka Sulvana mine in Silesia, and has been called Julianite. It is lead gray inclining to red in color, acquiring a dull black tint by exposure to the air, and is comparatively brittle. Its specific gravity is 5.12 and its composition as follows: Sulphur, 26.503; Arsenic, 16.782; Antimony, 1.421; Iron, 0.787; Silver, 0.538; Copper, 52.298; Loss, 1.671.

Origin of Electricity.—Dr. Louis Elsburg, of New York city, has communicated a new theory of the origin of electricity. According to this scientist, the number of vibrations executed by the molecules of an electrified body are between those of sound and heat, namely, they exceed 38,000 a second (at which point the consciousness of sound ceases altogether) and are below 200 billions in a second.

Endurance of the Humming Bird.—A humming bird flew into a court room in Georgia, recently, at 10¼ A. M., and continued to fly near the ceiling until 6 P. M., when it lighted. It was on the wing seven and a half hours. At least a southern exchange says so.

Water in Fruit.—Apples, pears and peaches contain eighty-two to cighty-six per cent. of water, and most other fruits nearly the same. Grapes contain nearly twice as much as currants, three times as much as raspberries, five or six times as much as apricots and peaches.

An Oil Spring in a River.—It is said that in the bottom of the Solomon river, in Kansas, near its confluence with the Smoky, have been discovered spriugs of coal oil boiling up, and there is great excitement in that section.

The manufacturers of American cut nails and spikes of the Atlantic States, at a special meeting held in New York on the 10th inst., decided to reduce their wholesale prices fifty cents per keg.

The brittleness of drawn wire may be obviated in a short time by subjecting it to a glowing heat or it loses this at the ordinary temperature within two to four months.

The African Diamond Fields.—There are between fifty aud sixty thousand foreigners in South Africa, hunting for gold aud precious stones.

Tame Codfish.—Mr. Buckland, in a recent number of *Land and Water*, gives au interesting account of a visit paid by him to a pond containing tame codfish at Port Logan, Wigtonshire. The property in question belongs to a gentlemau by the name of McDougall, and consists of an amphitheater about one hundred feet in diameter hollowed out of the solid rock by the sea. All egress from this is prevented by a barrier of loose stones, through which water passes freely. On approaching the shore of the pond many codfish of great size were seen; and wheu a servant woman who had charge of the fish approached with some muscles; the surface of the water was perfectly alive with the strugling fish. They came close to the edge, and after a little while permitted Mr. Buckland to scratch them on the back, and play with them in various ways. Among other experiments tried by him was that of holding a muscle in his hand, and allowing the fish to swallow his hand in the effort to obtain the muscle. These fish furnish to the proprietor an ample supply of excellent food, the flavor being considered much superior to that of the cod taken in the open sea. Whenever needed for the table, a selection can readily be made from the most promising of those on hand, and the fish secured without any difficulty.

To Preserve Posts,—A writer in the *Western Rural* says: "Take boiled linseed oil and stir in pulverized charcoal to the consistency of paint. Put a coat of this over the timber, and there is not a man who will live long enough to see it rotten. I discovered many years ago that wood could be made to last longer than iron iu the ground, but thought the process so simple and inexpensive that it was not worth while making a stir about it. I have taken out basswood posts that have been set seven years, that were as sound when taken out as when first put into the ground. Time and weather seemed to have no effect on them. The posts can be prepared for less than two cents apiece. They should be well seasoned before the oil and charcoal are applied."

Tea in Iowa.—Iowa is jubilant, for within her borders a new agricultural treasure hath arisen. This is tea, which has been cultivated in Crawford county up to the point of 700 pounds to the acre! It is said that the persou in charge of the plantation, after making many experiments in many States, found that the climate and soil of Iowa best suited the plant, and that it would and could endure thrivingly the coldest of her weather. No wonder the State is jubilant. We await with interest, for further developments, well assured that if tea can be grown with profit in Iowa, we shall by and by make a good business of it in California.

Dicken's American Readings.—By far the most profitable lecturing tour on record is that made by Dickens in this country, from Dec. 2d, 1867, to April 20, 1868, in which time the great novelist gave 76 readings, to audiences averaging 1,500, the average net proceeds amountiug to $3,000, giving him a fortune of $228,000 in what may be regarded as a simple holiday excursion of five months. His smallest house was at Rochester, which gave him $2,500, while his largest house yielded him $6,000. Mr. Dickens was listened to iu America by 114,000 people. Who wouldn't be a reader?

To Protect Leather from the Action of Ammonia in Stables.—Long continued observatious show that harness and other leather exposed to the action of ammonia continually given off in stables become weak and rotten sooner than other leather. Even when care is taken to protect them with grease this takes place. Prof Artes recommends the addition of a small quantity of glycerine to the oil or fat employed in greasing such kind of leather, asserting that it keeps it always pliable and soft.

Measuring the Hight of Trees. — When a tree stands so that the length of its shadow can be measured, the hight of the tree may be readily ascertained as follows:—Set a stick upright near the termination of the shadow of the tree. Mark the extremity of the shadow of the stick and also of the tree. Then as the length of the stick's shadow is to the length of the stick, so is the length of the tree's shadow to the hight of the tree.

A Gigantic Nettle.—They have a stinging nettle in Australia, which grows 40 feet high, and has a stem over two feet in diameter. By the way, we believe no botanist has yet been able to make it clear what office the nettle has assigned to it in the economy of nature, or why it is guarded with fine needles, as though more precious than other plants. As nothing was made in vain, a purpose was certainly coutemplated. What is it?

One pouud of tea contains about a third of an ounce of theine, two and a half ounces of casseine, one twelfth ounce of volatile oil, and two and a half ounces of gum, half an ounce of sugar, half an ounce of fat, four ounces of tannic acid. Mineral matter or ash, water and woody fibre make up the remainder.

Here and There.—A comparison of the extremes of noonday temperature in Philadelphia and San Francisco during the month of July, briugs out with great clearness the remarkable uniformity of the California climate. In Philadelphia these extremes were 69 and 98 deg., while in San Francisco they were 60 and 69 deg.

Good Health.

How a Man Feels when He is Full of Strychnine.

Dr. Harris, an assayer residing at Gold Hill, Nev., receutly came very near being poisoned to death through taking a dose of medicine for rheumatism. The following communication from him tells the story: Last night I felt a pain in my knee, caused by rheumatism. I got up at 10 o'clock and took a dose of rheumatism medicine prescribed by Dr. Toland of San Francisco. There was only one dose left, and not at the time thinking of the sediment at the bottom of the vial, I took it. Half an hour after, as I was lying in bea with a candle in hand reading, I was struck senseless and speechless.

The candle fell on the bed, and I could neither stir nor cry out for a second. Luckily the shock termiuated in time to let me put out the light, or the house and all would have been consumed. More and stronger shocks and convulsions then followed, and from the symptoms I knew that I had taken strychnine. My wife brought sweet oil, of which I took two doses. But great God! what a torment! Shocks and convulsions followed from half-past ten to twelve o'clock, when the death throes set in. I was convulsed, and felt five shocks like a man broken on a wheel, and the last shock made me helpless and stiff. I felt the earth give way, and called my wife to me.

My hands were crossed, but I could not move them, nor any part of my body. I bade them all good-by and swooned. My wife sent the children for a doctor, and Dr. Kirby came about 12 and found me still alive and somewhat rational, as the oil had its effect. From then until 6 o'clock this morning I had shocks like from a galvanic battery every few miuutes. I could not stir hand or foot, and any attempt to turn my head brought a shock. To tell what I suffered is impossible, and I had given up all thoughts of life; but soon I began to recover; and now, 10 o'clock A. M., I am able to write you this, in order that you may warn persous using this medicine to beware of overdoses or settlings.

Broken Hearts.

The advances of pathology demolish for us some of the most beautiful illusions of ancient times. The heart, for instance, is degraded from its position as the high altar of devotion and affection, to a mere hydraulic machine. The liver no longer plays its old role in melancholy, to which it gave the name. It makes simply some bile and some sugar. The eye, after all, is only a system of lenses, and refracting media of different densities, and so on, of all the rest; but in the course of still further and more extended observation became evident the close connecting links between these organs and the presiding brain, which explains to us the intimate relationship which exists between them; expression then still lingers in the eye; hypochondriasis still has its frequent seat beneath the cartilages of the ribs, and the heart still throbs and palpitates under the various emotions. Bernard has explained to us in detail the full significance of the cold and empty heart, the heart that is light or heavy, the heart that is full to bursting, and last of all, the heart that breaks outright. The great batteries of the cerebral mass send special lines of innervation to the heart, and though the communication between the heart and brain are not so swift—being only at the rate of 112 feet per second, as electricity, yet its force and volume are even more intense. The broken heart, then, is no mere poetic fiction, and several instances are recorded where rupture of its strained or more especially diseased fibers, has taken place under powerful mental emotion.

The Cuticle or Scarf Skin.—As this scarf skin has no blood vessels running into its substance it has no means of self-repair; so that in proceeding from the deeper layers to the surface the cells go through all the processes of birth, death, decay, and dissolution, though the membrane is so thin. Since, also, this skin has no nerves entering it, it has no sensation, and the sensation of touch must be felt through it in the same way—though in a much more perfect manner—as we feel anything which touches us through our clothing. It will be seen, theu, that it must fit very accurately and closely to the sensitive skin beneath, or the sense would be dull and imperfect. The skin below has an immense number of small hillocks, and each one of these is closely surrounded by, and inclosed in, the inner layer of the cuticle which is moulded upon them. When the cuticle is stripped off, after being loug soaked in water, it shows an infinite number of small pits, out of which the hillocks or papillæ have been dragged. If the whole be torn away before maceration—*i. e.*, from the living skin—it usually tears away the papillæ with it, leaving a bleeding surface.

Flies Convey Infection.—Professor Kletzinsky, of Vienna, is reported to have microscopically detected epithelial cells and pus-globules adhering to the bodies of flies which had lit on small-pox patients, thus justifying the belief that these insects may convey infection,

Drinking too Much the Cause of Kidney Disease.

Five-sixths of an animal body is made up of water. A man weighing two hundred may be dried into a mummy not weighing but sixteen pounds, including bones of the skeleton. Water, therefore, is largely employed in giving form, flexibility and beautiful lines. Enough is taken in with food to meet all demands of the system. The precise quantity, and indeed quality, is regulated by a sense of thirst. But that vital sentinel may be corrupted by excessive indulgence. When simply water is taken, a morbid thirst never follows. If, however, stimulating fluids are swallowed a morbid craving may be generated, which if not restrained, may become an unsatisfied passion, to the postive injury of organs on the regular functions of which sound health depends.

There is danger from indulging in *artificial drinks*. Nature distills them over in the stomach by her own chemical process, separating the water from them, which is used for legitimate purposes, but rejects all the rest, throwing it out of the body through the kidneys and skin. By working the renal apparatus beyond a normal gauge, to carry off offending elements, they fall into disease beyond the resources of medicine.

This explains a prodigious advance of Bright's disease—that is, a degeneration and loss of ability in these organs to do what they must accomplish for stability in health. None of the lower animals have kidney diseases, because they never drink to excess or burden the stomach with compound beverages.

Sir William Gull on Typhoid Fever.

In a recent lecture on typhoid fever at Guy's Hospital, Sir William Gull remarked that two hundred and fifty years ago one of the kings of England died of ague, but now by improved agriculture and drainage the disease had become rare, and certainly very few die of it. Typhoid fever, he asserts, is as preventable as ague, and two hundred and fifty years hence deaths from it will be as rare. The disease is caused by a virus of nature, which may get into the healthy body, increase in it, and destroy it. It is an accidental condition, and not one of the ordinary processes of nature. The origin of the disease is somehow or other connected with drainage; it has therefore been called the filth fever, and to get rid of the filth is to get rid of the fever. This was illustrated in the case of the Milbank prison, where typhoid and dysentery were once thoroughly established, but where both almost wholly disappeared when the water-supply was changed aud efficient drainage provided. In his closing remarks on the treatment of the disease, the lecturer said that no one can approach a case of typhoid fever without paying some attention to hygiene. This he claimed was of the greatest importance, and with it he would prefer to carry any one through the disease by wines and soups and fresh air, rather than by the use of drugs.

Burying Alive.—A Paris paper challenges the world to produce one authentic case where a person has ever been buried alive. It adds that such stories are all bosh. Notwithstanding the above, we are inclined to believe that persons have, not unfrequently, been consigned to the grave before life was extinct, though the number of cases in which this has been done are probably very much fewer than is generally supposed.

A German physician recommends that whenever there is any doubt in regard to life having departed, that a string should be tied tightly round a finger or a limb of the person supposed to be dead, when, if life is absolutely extinct no change whatever will take place, but if there is the slightest vitality remaining, the flesh above the string will become a bluish red, being surcharged with blood, carried to it by the arteries, and which the string prevents the veins returning to the heart.

Lie Down and Rest.—Dr. Hall says the best medicines in the world, more efficient in the cure of disease, than all the potencies of the materia medica, are warmth, rest, cleanliness and pure air. Some persons make it a virtue to brave disease, to "keep up" as long as they can move a foot or crook a finger, and it sometimes succeeds, but in others the powers of life are thereby so completely exhausted that the system has lost all ability to recuperate, and slow and typhoid fever sets in and carries the patient to a premature grave. Whenever walkiug or work is an effort, a warm bed and a cool room are the first indispensable steps to a sure, and speedy recovery. Instinct leads all beasts and birds to quietude and rost, the very moment disease or wounds assail the system.

Sassafras Leaves for Boils. — Seeing a friend sorely afflicted with boils a few days since reminded us of the Sovereign virtue which sassafras leaves, pounded into a sticky paste and applied as a poultice, possess. The writor has tried the remedy on his own person and applied it to persons of others in many instances, and never knew the poultice to fail in drawing the most obstinate boil to a "head" within twenty-four hours. I am aware that the sassafras tree is rare in California, but that is no reason why any nurseryman should not introduce it, and our people cultivate it extensively. The bark of the root is au article of commerce and the tree is useful and ornamental. H.

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PRINCIPAL EDITOR.....W. B. EWER, A. M.
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SAN FRANCISCO:

Saturday, Feb. 8, 1873.

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Send in the Names.

Friends who have been getting up clubs for the RURAL PRESS, are requested to send in the names as fast as paid, without waiting to complete the club. The lists should be completed as soon as possible.

Angora Goat and Fleece.

On another page of this issue we present a circular from the Secretary of the Angora Goat Breeders' Association. The object of the circular is specifically set forth in its introduction, and we hope that the growers of mohair will see the necessity of complying with the suggestions it contains. It is important that there be a general gathering of all the mohair fleece produced on this coast at one point, to make it an object for dealers and manufacturers to come and see it.

We want those interested in the growth of mohair to give particular attention to the circular in all of its suggestions. It is a business so new to this coast, that growers will do well to gather in and profit by the experience of others, and in this way all will be to a certain extent benefitted. We hope therefore that breeders everywhere, will try and second the efforts of those who are active in the business of extending this important interest, by sending in their mohair fleece, be it more or less and without regard to quality.

INTERESTING.—Our readers will find in this issue of the RURAL an interesting lecture by J. Ross Browne delivered before the Oakland Farming Club at a recent date. It abounds in practical good sense, fully maintaining the well deserved reputation of the author.

Wheat Review for January.

Despite the recent subsidence of the market, the month just closed has been one of the most satisfactory on record, so far as the

Prices

Obtained are concerned. After New Years the market opened with the highest price on record, averaging, for Coast, $1.95, for shipping, $2.05, and for milling, in which, however, little business has been done, $2.10. The figure of $1.95 was the highest average which Coast attained during the year, being 15 cents over the highest average of December, 1872. But from the 3d of January it continuously declined, falling 1 cent on the 4th of that month; 1 cent on the 6th; half a cent on the 7th; 2½ cents on the 11th; 2¼ cents on the 24th and 5 cents on the 29th; a total fall of 15 cents during the month; on the 31st of January bringing precisely the same price as on the 31st of December. Shipping wheat advanced 1¼ cents on the 6th; fell 3¾ cents on the 11th; rose 2⅛ cents on the 17th; again fell 2⅛ cents on the 22d; 7¼ cents on the 24th and 2⅛ cents on the 29th; on the 31st being 12¼ cents lower than in the beginning of the month, and 2⅛ cents lower than on the corresponding date in December. Milling wheat rose 5 cents on the 6th; fell 5 cents on 11th, and 5 cents again on the 13th; rose 5 cents on the 17th, fell 5 cents on the 22d, 5 cents on the 24th, and 5 cents on the 29th, standing on the 31st at 15 cents less than on the 2d, and 5 cents less than on the last day of December. The exceptional rise in Coast wheat at the beginning of the month was entirely due to the unprecedented demand for export. The

Highest Figures Obtained

Were, for Coast wheat, on the second and 3d of January, $2.00; for Shipping, $2.10 on the 2d, and $2.12½ on the 6th; and for milling $2.15 on the 2d, and $2.20 on the 6th. The lowest prices paid were $1.75 for Coast, on the 29th, 30th and 31st, $1.90 for Shipping from the 24th to the 31st, and $1.90 for Milling on the 30th and 31st.

California Wheat in Liverpool

According to the telegrams received by the Associated Press and the Merchants' Exchange was nearly the same at the close of January that it was at the close of December. Then it was quoted at $2.95 to $3.01 for California Average, and $3.03 to $3.15 for Club. On the second of January it had risen to $3.07 to $3.11 for Average; $3.19 to $3.23, for Club, and advance of 11 cents on the former, and 12 cents on the latter. On the 8th of January Average fell 2 cents, on the 10th, 2 cents more, and on the 14th, 3 to 4 cents, while on the latter date Club fell 12 to 14 cents. On the 17th inst. Average rose from 4 to 6 cents; on the 21st from 2 to 4 cents; on the 24th it fell 2 cents; on the 28th 3 to 4 cents, and on the 31st 2 cents. Club rose 10 to 12 cents on the 22d, and fell 4 to 8 cents towards the end of the month. The market for Average is now half a cent higher than it was on the 31st of December, and that for Club 4 cents higher.

Receipts

For the month have equalled 1,451,469 centals, a little behind those of some previous months, but two-thirds nearly in excess of those of January. These have included 1,125,988 centals of Bay wheat delivered in this city, 305,400 do. delivered at Oakland, and 20,081 delivered from coast ports. Besides this 206,458 centals have been received and shipped from Vallejo. The receipts of California flour have been equal to 21,263 barrels, and of Oregon equal to 9,777 barrels. The total in wheat and flour, California and Oregon, received at San Francisco, Oakland and Vallejo, for January, have been equivalent to 1,751,047 centals.

Exports

Have aggregated 52 cargoes and two shipments, principally to Great Britain and Ireland. The number of centals exported has been 1,486,729, of a value of $2,964,433. Fourteen vessels have received three-fifths of their cargoes at Oakland wharf. The export of flour has equalled 5,258 barrels, 3,850 half sacks and 43,386 quarter sacks.

New Crop Asparagus.

In our issue of the 25th ult., we made mention that on the 22d, the first asparagus of the season made its appearance in our markets, selling at 40 cents a pound. We thought we were telling a pretty big, early asparagus story to go East among the snow-banks of that hyperborean or at least frozen region. But when we find there is a bit of commendable rivalry between the Santa Clara and Sacramento valleys, as to which can put the earliest asparagus upon the market, it becomes necessary that we should come out with the whole truth as to time.

We find that W. Boots, of Milpitas, Santa Clara valley, was in market with asparagus on the 11th of January, and that it sold at 75 cents a pound. On the 17th, at 50 cents; on the 22d at 50 cents and on the 28th, at 40 cents a pound. Now the question is, did Sacramento or any other valley in the State beat this for early asparagus?

Convention of Short Horn Durham Stock Breeders.

We have previously given details of the proceedings of this body; it will therefore be unnecessary to introduce this account of the proceedings, except by saying that seeing the needs of organization, a number of gentlemen interested in the matter, on the occasion of the State Fair at Sacramento, seeing the disadvantages under which those interested at present labored, through want of proper facilities for exhibition, and through want of an organization which should enable them to take any action in matters where their interests were specially concerned, resolved to form an association and for this purpose called a convention of which the first meetings were held at Agricultural Hall, Sacramento. An adjourned meeting was held at the Young Men's Christian Association Hall on Sutter street, on Tuesday morning last, when the

Morning Session

Was entered on. The Convention was called to order at 10½ A. M. by the President, Judge Carr. The following gentlemen were present: Judge J. D. Carr, Monterey Co.; Col. C. Younger, San José; R. S. Carey, Sac. President of the State Agricultural Society; J. M. Patterson, Oakland; W. L. Overhiser, Stockton; J. N. Weeks, Oroville; R. B. Cannon, Solano Co.; J. Brewster, San Joaquin; R. Ashburner, San Mateo Co.; J. B. Redmond, Marin Co.; Messrs. H. and W. Page, San Francisco; Major Vernon, Oakland; W. S. Chapman, San Francisco; R. A. Sparks, Marysville; C. B. Polhemus, Santa Clara; W. Fleming, Napa Co.; and Major Beck, Sacramento, Secretary of the State Agricultural Society.

Judge Carr opened the proceedings by stating that the Convention of Short Horn Durham Breeders had adjourned at Sacramento last September to meet here to complete their organization. One

Object of the Convention

Was to obtain better accommodations at the State Fair than they enjoyed heretofore; another was to know whether they would adopt any plan to import stock. All these matters had to be discussed.

There are older Short-Horn breeders here than I am, and I would like to hear their views. I feel a deep interest in the welfare of the stock breeders of the State. Our Secretary is ill, and he has sent a letter asking that some one be appointed temporarily or permanently in his stead.

On motion Mr. Page was unanimously chosen to act as Secretary.

The minutes of the previous proceedings of the Convention having been read and approved, the following resolution was adopted on motion of Major Vernon: "That we take the names of all parties here who wish to join the proposed Association."

The President of the Convention said that one of the principal objects of their meeting here was to ascertain whether the State Agricultural Societies would grant them

Increased Facilities

At future State Fairs.

Colonel Younger said that since he had been in the city, the question had been mooted, as to whether this would be made an Association composed exclusively of breeders of Short-Horn stock, or whether it would be advisable to admit all men in the cattle line in the State. If so it should be stated now. Their principal objection in meeting was to promote the interests of the cattle breeders of the State, to form an Association for the importation of stock, etc. They ought to admit stockmen in every capacity. The question of importation would come before them. Another important question was that concerning the

Premiums

Given at the State Fair at Sacramento. And there ought to be alterations made there, so as to enable stock breeders to exhibit their stock with some comfort. It was proposed to have open stalls where everyone could see the stock without crossing the course, and without the cattle being housed up during most of the day while the races were going on. The stock as matters were now managed were shut up, and there was no chance to show them. A committee should be appointed to make suggestions to the State Agricultural Board. I should like to discuss this matter before the members of this Convention. We want more premiums. We have had but one—a first one—no second or third. Some gentlemen think it hard that those possessing only small herds should be obliged to compete with those having larger herds. If they have not the best, they want to know whether they have not the second or third best. Anything I can do to promote a change in this, I will do with pleasure. The Board wish to offer all the facilities in the matter of stalls that they can.

We will have grounds laid out at the entrance to the park, and will give all facilities possible for people to see the stock.

At the conclusion of Colonel Younger's remarks, it was moved by Mr. Cannon, seconded by Mr. Sparks and carried unanimously "that

All Breeds of Thoroughbred Cattle be Admitted

To the Convention." Moved by Mr. Sparks; "that Judge Carr be elected permanent President;" carried unanimously.

Moved by Mr. Sparks, "that G. M. Swezey be elected permanent Secretary;" carried unanimously.

Colonel Younger said that it might be well to inquire whether these officers would be elected annually and whether they should have a Constitution and By Laws.

Judge Carr—"We have neither." Mr. Swezey thought there was not much use for By Laws when they only met a few times in the year.

Major Vernon suggested that the name be changed.

On motion of Mr. Fleming it was resolved that the Chair appoint a committee of five to draft rules and by-laws, and to give the society a name. Judge Carr appointed Messrs. Fleming, Sparks, Brewster, Cannon and Major Vernon on the committee.

On the motion of Mr. Sparks, Judge Carr appointed a committee of four, consisting of Messrs. Weeks, Redmond, Polhemus and Overhiser to confer with the members of the State Board present, on the question of premiums.

After the passing of a motion adding Mr. Ashburner to the Committee on Rules and By-Laws, the convention adjourned to meet again at two P. M.

Afternoon Session.

The Chairman called the meeting to order at a quarter past two, and the Secretary, pro tem, proceeded to read the reports of the two Committees appointed in the morning.

The Committee on Constitution and By Laws reported as follows:

1st.—That this Association shall be known as the California Thoroughbred Cattle Breeders' Association.

2d.—And shall consist of a President, Secretary and Treasurer. Each to be elected annually at the annual meeting.

3d.—The annual meeting shall be held on the first Tuesday in May, each year, and in San Francisco.

4th.—Each member shall be assessed for incidental expenses.

5th.—Any member refusing to pay his annual dues shall be expelled from the Society.

The Committee appointed to confer with the President, Secretary and members of the State Agricultural Board as to premiums at State Fair, etc., reported as follows:

Your Committee on premiums, beg leave to report that they would recommend the State Board of Agriculture to

Increase the Number of Premiums

On thoroughbred cattle, viz.: To breeders of 1st, 2d and 3d grades, as follows:

1st premium——, 2d premium ⅓ of first, and the third a framed diploma.

Your Committee also recommend that when there is no competition in any class, the exhibitor shall only be entitled to one premium in such class.

On motion both reports were adopted. With regard to the ways and means of obtaining

The Necessary Funds,

The meeting empowered the President and Secretary to levy the amount required and assess the same pro rata on each member.

Col. Younger moved to reconsider, and if necessary amend the by law relating to the date of annual meeting. On this a lively discussion ensued, in which several joined. It was finally determined to change the date of meeting from the first Tuesday in May to the first Tuesday in April—the meeting to be held in San Francisco.

Mr. Sparks read a paper on the distribution of premiums, particularly with regard to herds—in which he contended that the different varieties should be kept separate—that is to say, that a separate premium should be given for the best herd of Durham, the best of Devons, etc. Col. Younger replied by stating that the premium given for the best herd was evidently to discover the best herd suited to the country, and that therefore, all different varieties of thoroughbred cattle must be shown in the same ring—the decision of the judges under these circumstances showing the breed which was best for farmers to cultivate.

Messrs. Redmond, Weeks, Overhiser and Major Beck also spoke on this point, the majority apparently agreeing with Col. Younger's view of the case. There being no further business before the meeting, it adjourned until 8 P. M. on the first Tuesday in April, to meet at the same place.

A vote of thanks to the President who had kindly provided the hall for the meeting, and to the Secretary, were unanimously carried.

Before leaving the room an announcement was made to the meeting that, Mr. Sparks' herd of thoroughbred cattle will be sold on the Fair ground at Sacramento by Major Beck, on Thursday, the 20th inst., at 2 o'clock, as well as 25 well-bred Berkshire pigs, and that Mr. Wicks, of Butte county, will also hold a sale of thoroughbred Shorthorns on the 11th of April next.

HORTICULTURE.

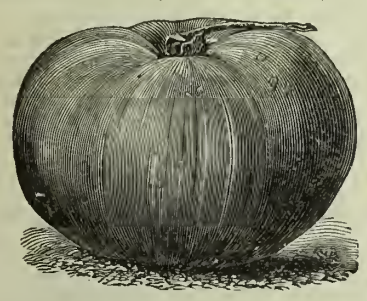
Api Petit, or American Lady Apple.

We have observed on the market fruit-stands this pretty little fruit, It keeps sound here to about February. Of the apples that grace the dessert this is confessedly one of the most beautiful; and its tiny dimensions rather increase than diminish its attractious. It is not its glossy, brilliant crimson aloue that induces the eye to rest on it with pleasure, but it is the melting of this into ivory tints—sometimes as gradual as daybreak—sometimes with brighter abruptness, just as the ruddy cloud bouuds the softened light of the setting sun. People here cannot but be struck during this winter, with the appearance of this brilliant fruit decorating the markots. This apple is said to be of very ancient origiu, having been introduced into France somewhere from the East of Europe. This may probably be the original apple referred to in French pomological dictionaries under the name of Api, and described as a small delicate apple, white and red. It also bears the name Api rouge and Etoilée.

In flavor the Lady Apple is less remarkable than for heauty. It is sufficiently sweet, with very little acid; pleasant, but devoid of any peculiar aroma. It keeps well till February; but it is desirahle that it should hang as long on the tree as the season will permit, or rather longer thau is permitted for most apples. Like our other fruit iu California, it is generally perfect, which it needs eutirely to be to meet with favor as an ornameut to the table, for which use it is especially adapted. With us in this region it is apt to be overgrowu. It is well adapted for Christmas decorations. Its general qualities may be generally described as being iu flesh, white, breakiug, tender and juicy, when not too ripe, with a mild, subacid flavor. We consider it worthy of cultivatiou.

Victor Tomato.

The history of this new tomato, now for the first time claimiug public notice and favor, is said to be this: A gentlemau residiug in Canada sent a glowiug descriptiou of a new tomato to James J. H. Gregory of Marblehead, Mass.,



who wrote at once, asking for a pinch of the seed that he might test it in his experimental garden. Abont the time the plants were put out, Mr. G. left for Europe. When he returned his foreman called his special attentiou to this new tomato, which had ripeued its fruit several days earlier than any other of some 25 varieties.

From the description we have received it seems to be not only the earliest, but of good size, ripening without any green around the stem, a great fault with many kinds otherwise good. It is heavy, full meated and rich, between round aud oval iu shape and red in color, and would seem to promise to be an acquisition superior to any one of the already large list of good early sorts. The advertisement of the seed of such a toma'o therefore in our columns by the proprietor is nothing to create surprise; sensible amateur culturists, know how to promote their own interests.

Cutting and Keeping Grafts

Many experieuced orchardists suppose the best time for cutting grafts to be immediately on the fall of the leaf in Autumn. It is true it will answer then well enough, but in our climate any time during the winter will do. Select the outside limbs aud the last year's growth of wood. Too much care cannot be taken in keeping the varieties separate. Tie up in bundles and mark the names of each kind as soon as cut. A moment's carefulness may save years of vexation. When the grafts are to be used at home it is well to lay them in the cellar until used and lightly cover them, so that they shall not evaporate the moisture they contain. Too much wet iujures them. Half dry sand is as good as anything, and if packed in old nail kegs and put in a cool place, they will require no further attention until it is time to use them.

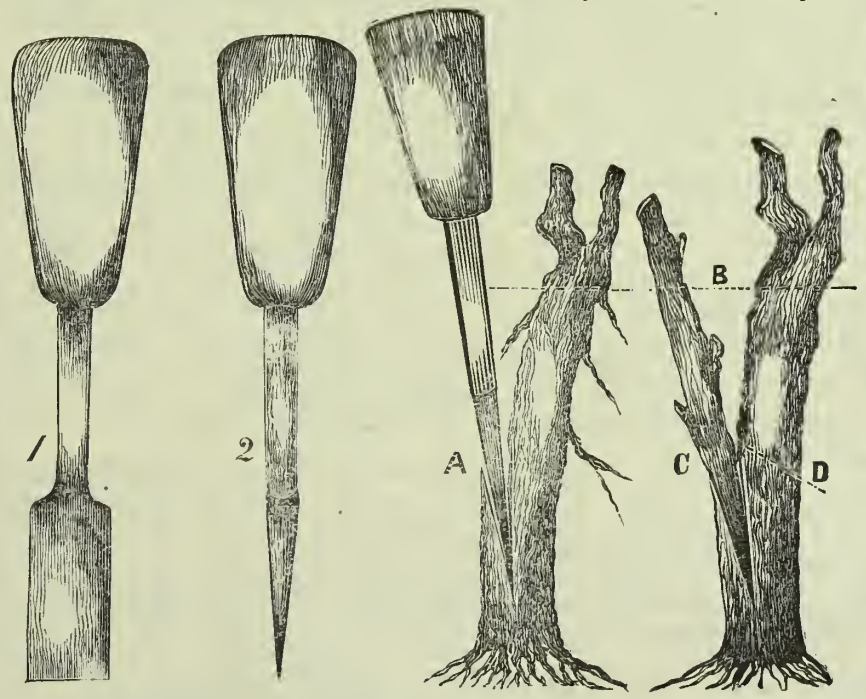
When grafts are to be sent to a considerable distance, they should be carefully wrapped in moist cloth or oil cloth, with folds enough to exclude the air entirely. For convenience of carrying they may be packed, in this condition, in a box, and the space filled in with cotton, wool, chaff, bran, or any similar substance.

It is stated by some that grafts taken from the lower limbs of trees will produce fruit the soonest, while those from the middle aud top from the upright shoots will make trees of the finest form. We confess a slight prejudice against the lower limbs of trees, as it was thence that "switches" were cut in the mischievous days of our youth, wherewith to apply Solomon's doctrine of discipline. Whether they will make upright trees, we cannot say; but they arc supposed to have a tendency to make upright men.

Grafting the Grape.

In our issue of Jauuary 25th, we gave description and cuts of two or more methods of grafting the vine, with instructions how and when to do it. Having recently had an interview with Mr. T. L. Grigsby, a practical viue grower of Napa Valley, he communicated to us his method of grafting the vine and as it differs materially from either of the modes before recommended, and as the time for securiug cuttiugs for scious is at haud, and as the new plan possesses in some respects advautages over the old methods, we lose no time iu giving it to our readers.

Of the cuts which we present, figure 1, is a tool of steel, chisel or rather wedge-shaped and sharp on its lower edge, aud from ¾ of an inch to an inch wide. Fig. 2, is the same tool seen edgewise. The mode of using it is this—first remove the soil from around the stock to be



grafted and also any small surface roots, between the dotted line *B*—which represents the surface of the ground—and the main roots below. With the left haud gently bend the stock, whether it be half an inch, an inch, or two or three inches iu diameter, and insert the cutting tool, pressing it down into and upon oue side of the stock, if it happens to be wider in diameter than the tool; but if less in diameter than the tool, let the cut go entirely across the stock, as at *A*.

Having previously fitted the scion wedge-shaped and a little thinner on the inner edge than the outer, withdraw the tool and insert the scion, with the bark of the outer edge to correspond as nearly as possible with the bark of the stock, and then letting go the left hand, the stock springs hack to its original position, firmly holding the scion in its place as at *C*. Then replace the soil, pressing it carefully down with the hand around the stock and graft, leaving oue bud of the graft only above ground. No other covering for the incision in the stock is necessary.

In May, when it is ascertained that the graft has taken, by the starting of the bud or buds—for sometimes the top bud will dry, when the other one or more will live—with a fine saw and an upward cut, remove the top of the stock at the point indicated by the dotted line *D*. The two material advantages of this mode are these—first, it is almost certaiu to succeed every time; and secondly, if it does not succeed, the vine is not injured in its production of a crop, being the same as though no attempt had been made to engraft it.

Scions for graftiug if not already cut, should be at once; and they can be set at any time from the tenth of January to the tenth of March, with almost certain success, provided the scions are in good condition, namely, alive and moist, but not budding out. They should be kept back till a convenient time for grafting, by burying them in the soil in a cool place.

Preserving Funeral Wreaths.

Our readers have, most of them, observed with wonder and admiration specimeus of remarkably preserved bouquets, wreaths and crosses of white flowers that had been used on some occasion of either bridal or burial, years ago, yet retaining all the apparent freshness of those newly gathered.

The art of doing this has been kept secret from the general public, while a few who have paid liberally to learn it make large profits by thus rendering these frail remembrances imperishable. A funeral wreath that has laid upon the breast of some departed loved one is preserved aud placed under glass to be not only a constant memento, but also an object of beauty to the beholder. The price charged for this work being high, many have been deterred from indulging their wishes; by the aid of the brief instructions here given any person of ordinary ability may succeed in rendering the most perishable and delicate flowers permanently heautiful.

Let the flowers we are to experiment upon, be fresh and firm, of pure, white, or delicate tints, without green leaves. If a bouquet is to be preserved without taking the flowers apart, the leaves at least will have to be replaced with some other substitute, as the process does not apply to them as well as to the flowers themselves. Take paraffine of the best quality, and melt it in a tin cup set in hot water, which may be kept boiling around it so as to keep the paraffine in a liquid state for use. Into this thin and transparent mass dip the blossoms, or, if found more convenient, hrush them quickly with a small brush so as to give them a very thin coat that will cover every part of each petal; and this will form a casing about them that will entirely excludo the air and prevent their withering. The transparency of the material renders this coatiug almost or quite invisible, so that the flowers present that natural appearauce which coustitutes their peculiar charm. Green leaves, if preserved in this way, must he coated with greeu wax, or with paraffine prepared with the addition of green powder paint. Chrome green is best. Lighteu to any tint requred by adding chrome yellow. Wax leaves, well made, may be used to very good advantage, or moss will answer very well for a background or foundation for the flowers.

Lately, at a wooden wedding, the bride carried the same bouquet that had been used on the occasion of her marriage five years before, and it had all the freshness and beauty of the original, lacking only the perfume. Perhaps amoug new discoveries that are so constantly to be noted, the art of preserving even this will soon come in its turn.—*Harper's Bazar.*

Cotton Culture.

We are kindly permitted by Mr. Geo. F. Sylvester of this city, 317 Washington street, to publish a letter received by him from Mr. Jno. L. Strong, one of the most enterprising and successful cotton growers in the State. All persons hoping for the success of cotton culture in California will fiud this letter of great interest. Mr. Sylvester is distributing, with a view of promoting its culture, select, and the best approved varieties of cotton seeds.

HOPETON, CAL. JAN. 5, 1873.

GEO. F. SYLVESTER, SEEDSMAN, SAN FRANCISCO. *My Dear Sir:*—I am pleased to see the interest manifested by you in the extension of cotton culture in this State, inducing an attempt to promote it through the distribution of selected varieties of seed. I cheerfully comply with your request to furnish you with such instructious relative to the preparation for planting and cultivating it, as will enable the beginner to treat it intelligently. Preliminary to any directions relative to planting and cultivation, it may not he unprofitable to indicate the localities from which satisfactory results may be expected.

I am convinced that cotton may be successfully and profitably cultivated anywhere in California between the isothermal lines of 60° and 70°. Certainly, iu the valleys of the Sacramento, San Joaquin and Kern Rivers. I would not risk an extensive planting upon the low land bordering on the Coast. But upon the dryer lands, or on the plains, in seasons of ordinary rain fall—such as that of 1871-2 was, or that of 1872-3 promises to be—cotton should be tested thoroughly.

The indications of my experiment in Los Angeles county in 1871, lead me to hope for successful results from the immense regions referred to. One of the results of that experiment was the demonstration of the influence of sea air upon staple. The seed of the shortest staple and current variety planted in the South, yielded there, a liut which Eastern spinners and brokers pronounced equal to Sea Island.

The character of the land selected for planting should be moderately moist. A soil from which the moisture is gradually and surely exhausted as the season progresses. Cotton is not a voracious feeder like corn, and a damp, cold soil in which corn would flourish, is an unhealthy locality for the first named plant. The crops on the Merced River, in Fresno and Kern counties, were all injured the past year by excessive moisture in the soil. In other respects, the plant flourishes on all soils, sands and clays alike.

The land should be plowed early—in the absence of facilities for irrigation—and plowed as deeply and thoroughly as possible, say from eight to ten inches. After plowing, the finer the tilth to which it can he reduced by harrowing and dragging, the better.

The planting should be finished as early as possible after the frosts of spring have ceased to fall. The cheapest method of performing this work, is through the use of the planter. Cotton seed planters are made here at a cost of $25. With this implement one man aud horse will furrow off and plant eight acres per day. A bushel of seed—30 pounds—per acre is an ample quantity.

In eight or ten days after planting, the cottou will be above ground. If weeds should spring up between the row, they should be exterminated promptly. For this work, the best implement I have discovered is Strong's Horse Hoe. The Knox Horse Hoe is the best substitute. When in the fourth leaf the plants should be reduced to a stand by thinning them to one plant for every foot; one plant for every foot in the row gives a perfect "stand." The rows should be four feet apart on good land; on low, moist lands, the distance should be from 4½ to 5 feet. As long as weeds continue to come in the space betweeu the rows they should he exterminated hy the horse hoe. It will not be necessary to use it more than twice in the same row. So too, the hand hoe should be used to exterminate such as spring up in the drill, among the stalks. The work of thinning is executed by a hand hoe from six to seven inches in width. A man and horse will go over ten acres per day with the horse hoe; a man will finish up about one acre per day with the hand hoe. This ends the work of cultivation, and costs from six to seven dollars per acre.

If the plants possesses facilities for irrigation, the work of applying water should be the first performed. If the land be thoroughly irrigated before plowing, cotton may be successfully planted upon it. If the plant should plainly indicate the necessity for it, then no more should be applied at one time than an ordinary rain would afford.

In California picking is a simple process. The requisites are a sack, a man or boy, and a place to stow the cotton. Ginning is alike simple; the gin is put up and set to work by the seller.

Any one who understands the management of a hay press can press cotton. An ordinarily strong hay press will answer for baling, but a cotton press is preferable. The best gin now in use is the Gullett; of this pateut there are two kinds; the Steel Comb Gin, the new style light draft Gullett, called "Magnolia Gin." The former costs $5.50 per saw currency, delivered in New York; the latter $5 per saw freight to San Francisco—$38 coin. A fifty saw gin will turn off 1,500 pounds of liut cotton in ten hours. Attached to the horse-power in common use, six horses are required to drive it.

The best cotton presses in use are Gullett's Hand-press and Rembert's Plantation Compress. On the former, three men can bale twenty bales of 150 lbs to 500 lbs. weight each, per day On the latter, the same number of bales,—with the addition of one mule, will be reduced to shipping dimensions for the European market. The price of the former is $175 currency and freight to San Francisco. The latter $500 and freight to San Francisco. Orders for them left at your house will meet with prompt attention.

Respectfully yours,
GEO. L. STRONG.

The profits of cotton culture the past year varied from $25 to $43 per acre. A gentleman planted on Mariposa Creek, in this county, twenty acres on shares with me. After paying all expenses, including $2.50 per bushel for seed, he realized a net profit of $43.75 per acre. I regard $40 per acre, net profit, the legitimate result in good seasons.



Left Alone at Eighty.

What did yon say, dear, breakfast?
Somehow I've slept too late;
You are very kind, dear Effie,
Go, tell them not to wait.
I'll dress as quick as ever I can,
My old hands tremble sore,
And Polly, who used to help, dear heart!
Lies to'ther side o' the door.

Put up the old pipe, deary,
I couldn't smoke to-day;
I'm sort o' dazed and frightened
And don't know what to say.
It's lonesome in the house, here,
And lonesome out o' door—
I never knew what lonesome meant,
In all my life, before.

The bees go humming, the whole day long,
And the first June rose has blown,
And I am eighty, dear Lord, to-day,
Too old to be left alone!
O, heart of love! so still and cold,
O, precious lips! so white—
For the first sad hours in sixty years,
You were out of my reach last night.

You've cut the flower. You're very kind.
She rooted it, last May
It was only a slip; I pulled the rose,
And threw the stem away;
But she, sweet, thrifty soul, bent down,
And planted it where she stood,
"Dear, maybe the flowers are living," she said,
Asleep in this bit of wood."

I can't rest, deary—I cannot rest;
Let the old man have his will,
And wander from porch to garden post—
The house is so deathly still;
Wander, and long for a sight of the gate
She has left ajar for me—
We had got so used to each other, dear,
So used to each other, you see.

Sixty years, and so wise and good,
She made me a better man,
From the moment I kissed her fair young face,
And our lovers' life began.
And seven fine boys she has given me,
And out of the seven, not one
But the noblest father in all the land
Would be proud to call his son.

O, well, dear Lord, I'll be patient,
But I feel sore broken up;
At eighty years, its an awesome thing
To drain such a bitter cup.
I know, there's Joseph and John and Hal,
And four good men beside,
But a hundred sons couldn't be to me
Like the woman I made my bride.

My little Polly; so bright and fair!
So winsome and good and sweet!
She had roses twined in her sunny hair,
White shoes on her dainty feet;
And I held her hand— Was it yesterday
That we stood up to be wed?
And— No, I remember, I'm eighty, to-day,
And my dear wife, Polly, is dead.

—*Alice Robinson.*

Mysteries of the Feminine Toilet.

The other day, says a recent writer, I heard of an incident which shows that even men of society do not understand all the mysteries of the feminine toilet. A gentleman, who devotes a large part of his time to the society of ladies and who believes himself a *connoisseur* in all that pertains to them, was much annoyed by observing that a fair friend of his, favorably known for her style of elegant dressing, would insist, when the weather would allow it, upon wearing an old shawl devoid of any claims to beauty or good taste.

The gallant endured this for a long while. He walked up Broadway and Fifth Avenue, and rode in the park with his friend, and often looked at the odious shawl in a way that he thought would convince her of its unfitness for so elegant a woman as herself.

She did not take the hint, however, and continued to display it on every possible occasion. He lost patience at last, and said to her one day:—

"May I be permitted to inquire why you will wear that miserable shawl all the time? It ruins your dress. You look so exquisitely otherwise that I cannot comprehend why you will deform yourself with such a faded rag as that. It has nothing in world to recommend it; and I believe if you were to throw it off in the street nobody would pick it up."

The bright eyes opened with surprise, and a strange expression fell across the pretty face.

"You are jesting, are you not?" the lady asked. "You do not really dislike my shawl, do you?"

"I never was more serious in my life. I thoroughly detest this thing which you call a shawl."

"Well, then, I'll inform you that this is a camel's hair shawl; and, though I think it in very bad taste to speak of prices, it cost $3,000 at Stewart's, and is one of the finest ever brought to the country."

The young man was astonnded; but his taste was correct.

Keep Busy.—The ruin of most men dates from some vacant hour. Occupation is the armor of the soul. There is a satirical poem in which the devil is represented as fishing for men, and fitting his bait to the taste and business of his prey; but the idler, he said, gave him no trouble, as he bit the naked hook.

Bereaved.

Fold up the richly-embroidered robe, lay by the tiny shoe and white-plumed cap, for the poisoned death dart has forever stilled the pulse of the little wearer. The dead lids curtain the sea-blue eyes; the dimpled hands are folded rigidly over the pure white breast; the prattling voice is hushed, and the pattering feet are cold and silent forever. The broken toy is neglected, and the radiant smile that seemed like a Summer rainbow about our home, has frozen upon the pallid lips. The rosewood crib is tenantless now, but in the narrow little coffin we find its occupant; and there, too, is heart-smitten Rachael, bending in stony woe above the babe whose spirit smiles in glory. The nestling dove has flown from her bosom and long will it be ere the windows of her darkened heart are opened for the song of birds, the breath of dewey blossoms, or the sparkling sunshine to enter. Time will move on, and other immortals may flutter their stainless wings about the parent-nest, but no after-joys can dim the memory of the sainted first-born. Life is but a broad Sahara, with no gleaming, green oasis—no bubbling springs and shady palms to lure the weary pilgrim over its arid waste. "The shroud and coffin and the rattling clods!" She shudders, and bends with wilder grief above the starry child, the precious seed—*her* first seed, so soon to be sown in God's holy acre. The tender nursling, the cherished idol, has gone, bearing her tiny life, scroll folded, and without blemish or stain, no earth-taint marring the sacred script.

Life at Home.—It is practicable to make home so delightful that children shall have no disposition to wander from it or prefer any other place; it is possible to make it so attractive that it shall not only firmly hold its own loved ones, but shall draw others into its cheerful circle. Let the house, all day long, be the scene of pleasant looks, pleasant words, kind and affectionate acts; let the table be the happy meeting-place of a merry group, and not a dull board, where a silent, if not sullen, company of animals come to feed; let the meal be the time when a cheerful laugh is heard and good things are said; let the sitting-room, at evening, be the place where a smiling company settle themselves to books or games till the round of good-night kisses are in order; let there be some music in the household, music not kept like silks and satins to show to company, but music in which father and mother and sister and brother join; let the young companions be welcomed, and made for the time a part of the group, so that daughters shall not deem it necessary to seek the obscurity of back parlors with intimate friends, or to drive father and mother to distant apartments; in a word, let the home be surrounded by an air of cozy and cheerful good-will; then children need not be exhorted to love it—you will not be able to tempt them away from it.

The Connecticut Blue Laws.—The vitality of lies is something astounding. There is the current fiction known as the "Connecticut Blue Laws." These so-called laws are purely fictitious. They were written and published as a satire on the people of Connecticut, and were absolutely without any other foundation than the brain of the practical joker who drew them up. The fact that they never were enacted, and never were meant to be, has been proved scores of times, and yet a week seldom passes without some allusion to them by men who either believe, or affect to believe them genuine. Not long ago, a Catholic clergyman preached a sermon in which he quoted from these blue laws to prove the intolerance of the early settlers of Connecticut. Doubtless he believes them to be a part of the Connecticut statute book. He might better have quoted Knickerbocker's New York, as a veracious history, since the latter does contain a little truth, while the "blue laws" are fictitious from beginning to end.

Keeping Money.—We have known people ambitious to make money who would spare no labors to increase their income, and when they had secured it would use it to no purpose—waste it; get rid of it they scarcely knew how—and have nothing to show for it. They were good to make money, but could not keep or use it well. The only good they could get out of their money was the doubtful good of having it pass through their hands. There are many people of this stamp; they can get business and do it, can earn great wages, drive and push through any amount of toil, make long and close calculations, talk largely and well enough about business, but cannot increase their own capital. Their purse will not hold money—it leaks; it seems like the fabled pit, without a bottom, or like the miller's dam, whether it rained much or little, it would hold no water, or most likely they have no purse; Their money burns their pockets and hands; they have it spent before it is got, or always have plans on hand for its disposal.

A Good Man's Life.—Sometimes in the season you may stand upon a hilltop and look on the parched and yellow fields. Presently you say: "What is the meaning of that riband of green that winds down the slope and through the meadows till it is lost in the distance? Ah! now I remember. That is where a brook ran once. Its waters have been dried up, but the verdure which they nourish remains." And so, how often does it happen, after a good man's life has been exhaled to heaven, that the beauty and glory of its beneficence abides.

How we Fade.—As the trials of life thicken, and the dreams of other days fade one by one, in the deep vista of dissappointed hope, the heart grows weary of the struggle, and we begin to realize our insignificance. Those who have climbed to the pinnacle of fame, or revel in luxury and wealth, go to the grave at last with the poor mendicant who begs by the wayside, and like him are soon forgotten. Generation after generation, says an eloquent writer, have felt as we feel, and their fellows were as active in life as ours are now. They have passed away as a vapor, while nature wore the same aspect of beauty as when the Creator commanded her to be. The heavens will be as bright over our graves as they are now around our path; the world have the same attractiou for offspring yet unborn that she once had for ourselves, and that she has now for our children.

The Truth of to-Day.—Bancroft very truly says:—Philosophy has sometimes forgotten God; a great people never did. The skepticism of the last century could not uproot Christianity, because it lived in the hearts of the millions. Do you think that infidelity is spreading? Christianity never lived in the hearts of so many millions at this moment. The forms under which it is professed may decay, for they, like all that is the work of man's hands, are subject to the changes and chances of mortal being; but the spirit of truth is incorruptible; it may be developed, illustrated, and applied; it never can die; it never can decline. No truth can perish. No truth can pass away. The flame is undying, though many generations disappear. Wherever moral truth has started into being, humanity claims and guards the bequest. Each generation gathers together the imperishable children of the past, and increases them by new sons of light, alike radiant with immortality.

Crossing the River.—A Christian man was dying in Scotland. His daughter Nellie sat by his bedside. It was Sunday evening, and the bell of the Scotch kirk was ringing, calling the people to church. The good old man, in his dying dream, thought that he was on his way to church, as he used to be when he went in his sleigh across the river; and as the evening bell struck up, in his dying dream he thought it was the call to church. He said:—"Hark, children, the bells are ringing; we shall be late; we must make the mare step out quick!" He shivered and then said:—"Pull the buffalo robe up closer, my lass! It is cold crossing the river, but we will soon be there!" And he smiled and said:—"Just there now!" No wonder he smiled. The good old man had gone to church. Not to the old Scotch kirk, but to the temples in skies—just across the river.

Gain Time.—The economy of time is what is meant by gaining it. Of course it is impossible to "gain time;" but it is not impossible to so use it that there will not be too little of it when the busy season arrives. To this end the winter work on the well-managed farm is one of continuous preparation for operations in seed-time. Time is saved if not gained by putting all tools in prime order, hauling out manure that can be properly applied, propagating in hot-beds or frames, plants that yield a profitable early crop, obtaining and preparing grains and vegetable seed, and anticipating to the fullest extent possible the necessities and work of the busy season. That is what we mean by gaining time, and every thorough farmer among our readers understands its importance and profit; and those who do not understand this will never become thorough and successful farmers until they do understand it and act accordingly.

Dr. Chambers beautifully said: "The little that I have seen in the world and known of the history of mankind teaches me to look upon their errors in sorrow, not in anger. When I take the history of one poor heart that has sinned and suffered, and represent to myself the struggles and temptations it passed through—the brief pulsations of joy; the tears of regret; the feebleness of purpose; the scorn of the world that has little charity; the desolation of the soul's sanctuary' and threatening voices within; health gone; happiness gone—I would fain leave the erring soul of my fellow-man with Him from whose hands it came."

Sun-dials mark only the bright hours. Would it not be well if more people could imitate them? They would be surprised to find how many there are of these, and how much brightness there is in hours they are accustomed to think dark.

A novel pet has a lady of Danielsonville, N. Y., in the shape of a butterfly, which nestles in her hand, alights upon her shoulder or hair, or, by way of variety, hides in the knot of ribbon at her throat when he feels like taking a nap.

Two reasons why some persons don't mind their own business. One is they haven't any business, the other, they haven't any mind.

It is said that iron is a good tonic for debilitated young ladies. That may be so, but ironing is a better one.

The reason why editors have their manners spoiled is because they receive so many evil communications.

Young Folks' Column.



My name is Sir Bumble-eebeedoutyousee,
And I'm living "in clover" just o'er on the lea;
I'm a jolly fat fellow, as ever you'll find,
But I'm valiant, and bold! now keep that in mind.

I gather my honey, from flowers all the day,
But I don't (as my cousins do), store it away;
Nor put it in combs, arranged on some shelves,
But my family and I only, eat it ourselves.

We're ready and able to take our own parts,
And for self-defense, carry some very sharp darts,
Very civil and quiet,—but sometimes I own,
Our dander gets up, if we're not let alone.

Little Dick the next neighbor was tramping around,
And put his big foot, in our nest in the ground,
What a stir there was made: but I drew out my lance
And pricked him! he left with a hop, skip, and dance.

He ran to a puddle as fast as he could,
And plastered it over with soft, thick, black mud,
I laughed, and I laughed, till I thought I would bust,
At the pain he endured from my hearty good thrust.

So friends to you all, I just want to say,
If you ever should happen to travel our way,
Be careful! I warn you! and keep far from me,
Or I'll show you I'm Sir Bumble-eebeedontyou see.

—*Practical Farmer.*

A Word to Farmers' Boys.

"I don't feel rested at all," is a common complaint for farmers' boys to make when they rise in the morning. Well, it is your own fault. All the day long you keep up with hired John, working just like a man, because you are the right kind of grit and I like you for it. But when dark comes, you plump yourselves into your good, cool beds in your damp, sweaty shirt, without washing your poor, tired, sweaty body, and no wonder you don't feel rested.

Let me tell you what I know. You must not work too hard in trying to be "smart," but labor moderately, win and keep a quiet heart, one not easily depressed or easily excited. When the day's work is done if your mother is milking go carry two pails for her; or if Kate wants that flat stone laid by the spring for a step, do that, or move that unsightly log for her, or fasten that long hemp string at the top for her morning glories to climb, and soon the bells will nod a pretty thank'ee to you for them and her. Oh! such little acts are big stepping stones in the love of your mother and sisters, and I wish you'd remember it; besides they will make you feel good in your conscience, just as a friendly pat on the head of a little child does it good and begets good impulses.

Don't be afraid of clean, cold water and a linen rag; rub yourself briskly from head to toot, and don't dally and jump back with an ugh, when the splash meets you, and be so long about it that you will chill your blood and take cold. Then from the paper rags hunt out one of your old shirts or one of Will's to sleep in. Don't sit up in bed though, with two or three pillows under your head, only one, and that pressed flat, so that your head will lie even with your body. Take the same pains in daytime to keep yourself trim and straight, and step as though you had two shares of dignity and were made in the image of God.

Oh, this shambling, rambling, bag-of-bran way of walking and riding is a disgrace to humanity and the pride of manhood! Do quit it or break your stubborn limbs in the attempt to walk, not like a drunken beggar asking alms, but upright as God meant you to walk.—*Ohio Farmer.*

"That's How."

After a great snow storm, a little fellow began to shovel a path through a large snow-bank before his grandmother's door. He had nothing but a small shovel to work with.

"How do you expect to get through that drift?" asked a man passing along.

"By keeping at it," said the boy cheerfully. "That's how."

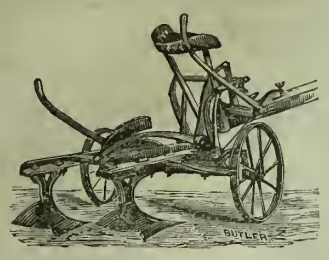
That is the secret of mastering almost every difficulty under the sun. If a hard task is before you, stick to it. Do not keep thinking how large or how hard it is, but go at it, and little by little it will grow smaller until it is done.

If a hard lesson is to be learned, do not spend a moment in fretting; do not lose breath in saying "I can't" or "I don't see how;" but go at it, and keep at it—study. That is the way to conquer it.

If a fault is to be cured, or a bad habit broken up, it can not be done by merely being sorry, or crying a little. You must keep fighting until it is got rid of.

Agricultural Implements.

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warrsnted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

Hill's Patent Eureka Gang Plow.



The following are some of the reasons why these Plows, are entitled to preference over any other Plow in use. They are made of the best material, and every Plow warranted. They are of light draught, easily adapted to any depth, and are very easily handled. They will plow any kind of soil, and leave the ground in perfect order.

FIRST PREMIUMS!

These Plows have taken First Premiums at the State Fair, at the Northern District Fair, at the Upper Sscramento Valley Fair, and tho State Agricultural Society Premium of $40 for the best Gang Plow, after a fair test and competition with the leading Plows of the State.

Champion Deep-Tilling Stubble Plow,

Took the First Premium over all competitors at the State Fair, 1871. It furrows 14 in. deep and 24 wide.

This Gang Plow combines durability with cheapness, being made entirely of iron by experionced workmen, of the best material. Over three hundred are now in use, and all have given entire satisfaction.

Manufactured and for sale by the

SWEEPSTAKE PLOW CO.,

At SAN LEANDRO, CAL., under the personal superintendance of the Patentee, F. A. HILL,

And also by most leading Agricultural Dealers in the State. Send at once for Circulars, prices, etc. 21v3

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

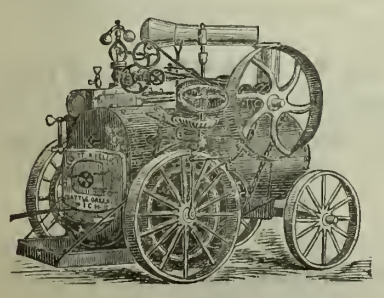
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Stockton Cal.

KELLER & CO.,

CORNER 10TH AND K STREETS, SACRAMENTO,

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Solo Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE.
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SWAN & CO.,

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GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS, FOR FARMERS, FOR FRUIT CANNERS.

Sugar Boxes,
Spice Boxes,
Citron Boxes,
Jelly Cans,
Pickle Cans,
Kerosene Cans,
Butter Caddies,
Lard Caddies,
Butter Chests,
Coin Boxes,
Peach Baskets,
Strawberry Baskets,
Apricot Boxes,

Plum Boxes,
Cherry Boxes,
Grape Boxes,
Orange Boxes,
Raisin Boxes,
Butter Chests,
Strawberry Chests,
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Bullion Boxes,
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All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

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Another Cuts Wood as Thin as any Pasteboard and as Smooth as Paper.

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IMPORTERS AND JOBBERS

— OF —

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
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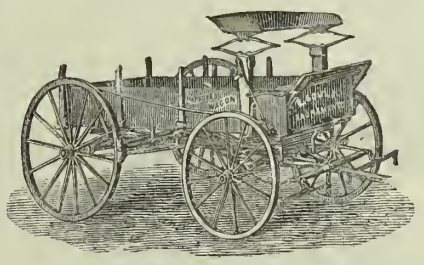
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HYDRAULIC RAMS, ETC.

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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Examine our HORSE COLLARS.

Adopted by BEST IN USE.

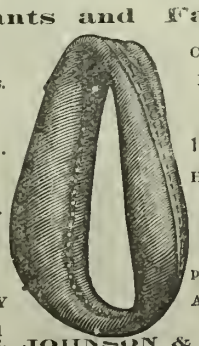
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No complaints.

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Manufactured only by



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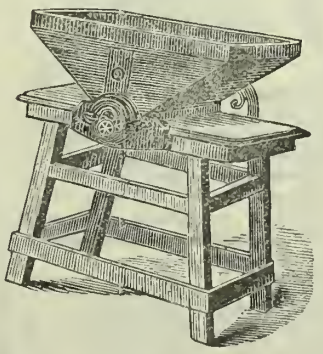
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Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

THE CELEBRATED

CHALLENGE FEED MILL



For Farm use and Custom work. The only Practica Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

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100 YEAR ALMANAC. FOR 50 CENTS we send, post-paid, an Almanac giving every Year, Month, Week and Day of the Century; also a Pocket Calendar for 1873. Extra inducements to Agents. Address
GEORGE A. HEARD & CO., Boston, Mass.
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Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

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Importer and Breeder of

Angora or Cashmere

GOATS

— OF —

PURE BLOOD

— AND —

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
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THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.



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THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS."—*Alexander.* "You get no FIGS from THISTLES."—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.
Office and Rooms, in Webb's Building, 31 Second St., opposite the Grand Hotel.

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WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
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40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

ALFRED WRIGHT..... .....Veterinary Surgeon.

ASK FOR WRIGHT'S Condition Powders FOR HORSES & CATTLE

General Depot.....159 New Montgomery street, S. F.

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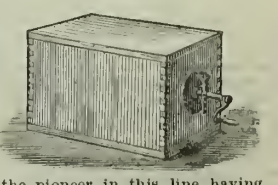
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With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in al respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

CHURNS.

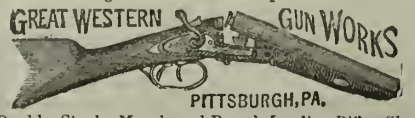


Those in want of BOX-CHURNS will do well to call at the old stand, 113 Commercial street, San Francisco, between Davis and Drumm, and examine our improvements before purchasing elsewhere.

The undersigned is the pioneer in this line, having manufactured them for the last ten years in this city.

☞ Patent applied for.
14v22-3m H. G. PRATT.

Write for Large Illustrated Descriptive Price List to



Double, Single, Muzzle and Breech-Loading Rifles, Shot Guns, Revolvers, Pistols, etc., of every kind, for men or boys, at very low prices. Guns, $3 to $300; Pistols, $1 to $25. 5v25-eow26t

$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

San Francisco and Liverpool Average Prices of Wheat.

1873	SAN FRANCISCO.						LIVERPOOL TEL.				DIFF.*
DATE.	COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	CALIFORNIA AVERAGE.		CALIFORNIA CLUB.		
Jan 2	1 90 @2 00	....	2 00 @2 10	....	2 05 @2 15	....	3 07 @3 11		3 19 @3 23		1 04
3	1 90 @2 00	....	2 00 @2 10	....	2 05 @2 15	....	3 07 @3 11		3 19 @3 23		1 04
4	1 89 @1 99	+1	2 00 @2 10	....	2 05 @2 15	....	3 07 @3 11		3 19 @3 23		1 04
6	1 88 @1 98	+1	2 00 @2 12½	+1¼	2 10 @2 20	+5	3 07 @3 11		3 19 @3 23		1 00⅝
7	1 87½@1 97½	+ ½	2 00 @2 12½	....	2 10 @2 20	....	3 07 @3 11		3 19 @3 23		1 00⅝
8	1 85 @1 95	+2½	2 00 @2 12½	....	2 10 @2 20	....	3 05 @3 09		3 19 @3 23		1 00⅝
9	1 85 @1 95	....	2 00 @2 12½	....	2 10 @2 20	....	3 05 @3 09		3 19 @3 23		1 02⅝
10	1 85 @1 95	....	2 00 @2 12½	....	2 10 @2 20	....	3 05 @3 09		3 19 @3 23		1 02⅝
11	1 82½@1 92½	+2½	2 00 @2 05	+3¼	2 05 @2 15	+5	3 03 @3 05		3 19 @3 23		1 01½
13	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	+5	3 03 @3 05		3 19 @3 23		1 01½
14	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	2 97 @3 01		3 05 @3 11		96½
15	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	.	2 97 @3 01		3 05 @3 11		96½
16	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	.	2 97 @3 01		3 05 @3 11		96½
17	1 82½@1 92½	....	2 00 @2 10	+2½	2 10 @— —	+5	3 03 @3 05		— — @— —		99
18	1 82½@1 92½	....	2 00 @2 10	....	2 10 @— —	....	3 03 @3 05		— — @— —		99
20	1 82½@1 92½	....	2 00 @2 10	....	2 10 @— —	....	3 03 @3 05		— — @— —		99
21	1 82½@1 92½	....	2 00 @3 10	....	2 10 @— —	....	3 05 @3 09		— — @— —		1 02
22	1 82½@1 92½	....	2 00 @2 05	+2½	2 00 @2 10	+5	3 05 @3 09		3 15 @3 23		1 01½
23	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	3 05 @3 09		3 15 @3 23		1 01½
24	1 80 @1 90	+2½	1 90 @2 00	+7½	2 00 @— —	+5	3 03 @3 07		— — @— —		1 10
25	1 80 @1 80	....	1 90 @2 00	....	2 00 @— —	....	3 03 @3 07		— — @— —		1 10
27	1 80 @1 90	....	1 90 @2 00	....	2 00 @— —	....	3 03 @3 07		— — @— —		1 10
28	1 80 @1 90	....	1 90 @2 00	....	2 00 @— —	....	— —		@— —		
29	1 75 @1 85	+5	1 90 @1 95	+2½	1 90 @2 00	+5	3 00 @3 03		— — @— —		1 09
30	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	3 00 @3 03		— — @— —		1 09
31	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01		3 07 @3 19½		07½
Extreme advance.		....		....		....					
Extreme decline.		↓15		....		12½		↓15			

*—Variation—Average increase daily. †—Variation—Average decrsase daily.
‡—Average monthly decrease.
*—The difference here noted is that between the average price of shipping wheat in San Francisco and in Liverpool as telegraphed hy the Associated Press and to the Merchants' Exchange on particular days.

S. F. MARKET REPORT.

Weekly Market Review

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, M. Feb. 8th, 1873.

The week has been a bad one for cereals of all kinds, which have been remarkably dull.

RECEIPTS. — Receipts this week have fallen off wonderfully, save only in Barley and a few articles of Domestic Produce of minor importance. We have not received more than one-fifth of our usual quantity of flour from the interior; only one-third of our usual quantity of Wheat; receipts of Beans and Bren have been somewhat less, while those of Hay have decreased one-half. Receipts of Hides have been much larger tben last week, while those of Barley have been less. Potatoes, Oats and Buckwheat have been larger. Receipts of Wine have during the week been decreased by one-fifth, and of Corn one-eightb.

We summarize receipts of Bay Produce to date as 5,234 quarter sacks of Flour; 81,398 centals of Wheat; 5,308 do of Barley; 492 do of Oats; 319 do of Buckwheat; 350 of Corn; 3,415 do of Potatoes; 765 do of Onions; 360 do of Beans; 1998 do of Bran; 613 do of Middlings; 383 do of Mustard: 2,045 Hides; 88 bales of Wool; 446 tons of Hay; 41 do of Straw; 17,143 gallons of Wine; 88 bales of Cotton; 145 barrels and 56 half-barrels of Beet Sugar, and 3 bales of Hops.

Receipts of Wheat at Oakland Wharf have aggregated 33,000 centals, or 165 car loads.

Receipts of principal articles of Coast produce have been, Wheat, 524 centals; Barley, 7,908 do; Oats, 485 do; Corn, 4,296 do; Potatoes, 6,283 do; Wool, 21 bales; Hides, 863; Beans, 399 centals; Peas, 65 do; Wine, 156 pipes; Brandy, 3 pipes; Castor Beans, 127 centals, and Mustard Seed, 390 do. Salinas sent nearly all the Wheat, Hueneme, Anaheim and Salinas two-thirds of the Barley, and San Diego one-fifth; Tomales most of the Oats, Hueneme and San Diego, nearly all the Corn; Humboldt one-half, and Bodega and Saliuas united, over one-third the Potatoes; San Diego three-fourths of the Hides; Hueneme three-fourths of the Beaus, and Anaheim the largest proportion of the Wine, the balance being received from San Diego.

BARLEY.—Barley has decreased from five to ten cents, as comparatively large arrivals are now being received. We note sales of 800 sacks of Coast, at $1.25; 1,000 do at $1.27½; 1,300 do Bay Feed, at $1.30; 100 do Bay, at $1.35; 250 do of Bay Brewing, at $1.37½, and 5,600 do of Brewing, at $1.45.

FLOUR.—Flour has fallen 25 cents during the week, and the highest price now quoted is $6.00. Exports have aggregated 608 barrels, 703 half sacks, and 21,107 quarter sacks to China and Japan by the Colorado.

HAY.—Receipts have been smaller this week than for the last two weeks. Prices remain nearly stationary. We note a sale of a cargo of 50 tons at private rates, a small cargo of choice Wheat at $22.50, and one of Alfalfa offered at $14.

HOPS.—There are none now in the market. Only three bales of new season Hops arrived in thia city last week. A sale of 80 hales at 42½ to 45 ceuts, was effected during the week; Eastern of 1872 commanded from 60 to 62½ cents.

OATS.—Oats have grown weaker during the past week. We uote sales of 100 sacks of fair at $2 05; 300 do of good at $2.12½; 200 do at $2.15; 100 do of Oregon at $2.20, and 600 do of choice California at $2.25. We have during the week received 5,042 aacks from Oregon, and 41,400 sacks from Columbia River.

POTATOES.—Receipts have fallen off greatly this week, yet prices are none the stiffer. During the week we have received 220 sacks from Victoria. We note sales of 2,800 sacks of Humboldt at $1.00 to $1.10; 100 do of Bay at 85c, and 100 of Bodoga at current rates. It is rumored that the steamer 'Clympia" is to cea e running to Eureka; if so, the market will probably become firmer.

WHEAT.—Receipts from all quarters, including 3,098 sacks from Oregon, have only aggregated one-third of those of last week, while prices have fallen off considerably. Exports have not been much more than one-half those of last week. We are, in fact, beginning to exhaust our surplus for export. Freights are nominally the same as last week, but we think they may soon begin to fall again. Associated Press and Merchants' Exchange telegrama quote California Wheat at 12s. 2d. to 12s. 4d., or $2.95 to $2.99, a fall of 4 cents on last week. Club is given by the same authorities at 12s. 8d. to 13s. 3d., or $3.07½ to $3.22. We note tbe following sales: 210 bags of common, $1.40; 200 do, $1.60; 1,300 do Superfine, $1.60 to $1.70; 400 do Common, $1.70; 400 do Common, $1.72½; 300 do Fair, $1.85; 800 Good at $1.92½ to $1.95; 16,200 do Milling at $1.95; 800 do at $1.97½; 2,450 Good at $1.90, and 11,590 at private rates.

Exports have been small compared with previous weeks. They have included per "General Butler" to Queenstown, 39,297 centals; per "Loch Doon" to Liverpool, 26,137 centals; per "Ceylon" to Liverpool, 18,624 do; per "Corea" to Cork, 18,823 do, and per "St. Lucie" to Liverpool, 39,359 do; makiug at total of 5 cargoes of 141,740 centals, worth $298,889.

WOOL.—The market is flat, and stocks are light. Tbe Eastern market is dull. Sales for the week aggregate 62,000 lbs. of Fall at private rates.

GENERAL MERCHANDISE.

Our imports for the week just closed have been large and varied, including 3,886 baskets of Sugar per "Art Union," from Java; 30,500 bags of Sugar per "Adeline" from Manilla; 46,920 feet of Oak; 27,029 do of Walnut; 15,025 Oak staves and 600 tons of Coal per "Antioch" from Baltimore, besides three cargoes of Chemicals and Iron from Glasgow and Liverpool, and 4 cargoes of assorted goods per mail steamer via Panama and sailing vessels from New York. Exports have aggregated $351,920 in value carried away in 8 vessels.

DOMESTIC PRODUCE AT WHOLESALE.

Wednesday M., Feb. 5, 1873.

FLOUR.

Alviso Mills, bbl.	4 25	@6 00
California	4 25	@6 00
City Mills	4 50	@6 25
Comme'l Mills	4 50	@6 25
Golden Gate	4 50	@6 25
Golden Age	4 50	@6 25
National Mills	4 50	@6 25
SantaClaraMills	4 50	@6 25
Genesee Mille	4 50	@6 25
Oregon	4 50	@6 25
Vallejo Star	4 50	@6 25
Venns, Oakland	4 50	@6 25
Stockton City	4 50	@6 25
Lombard, Sac	4 50	@ —

BEANS.

Beans sm'l white	2¾	@ —
do, butter	4¾	@ —
do, large, do	5¾	@ —
do, hayo	3¾	@ —
do, pink	4	@ —
do, pea	3¾	@ —

BROOM CORN.

Per ton ..... $40@120

GRAIN, ETC.

WheatCal. coastl	80	@1 85
do, shipping	1 90	@2 00
do, milling	1 90	@2 00
do, Oregon	1 90	@2 00
Barley, DarkC'st	1 20	@1 30
do, Light	1 30	@1 35
do, Brewing	1 40	@1 50
Oats, Coast	2 00	@2 12½
do, Light	2 12½	@2 20
Corn, White	1 15	@1 20
do, Yellow	1 15	@1 20
Buckwheat	1 75	@2 00
Rye	2 00	@ —

DAIRY PRODUCE

Butter, Cal. fresh	45	@ —
do, ordin'y roll	47½	@ —
do, choice	50	@ —
do, new firkin	—	@ —
do, packed	—	@ —
do, New York	25	@ 32½
Cheese. Cal new	16	@ —
do, Eastern	16	@ 18
Eggs, Cal. fresh	—	@ 37½
do, Oregon	33	@ —
do, Eastern	29	@ —

FEED

Bran per ton	18 00	@ —
Middlings	25 00	@30 00
Hay	15 00	@23 00
Straw	10 00	@
Oil cake meal	30 00	@ —
Corn Meal	1 85	@2 25

FRESH MEAT.

Beef, fr quality	8	@ —
do, second do	6	@ 7
do, third do	4	@ 5
Veal	8	@ —
Mutton	8	@ —
Pork, un ssed.	5½	@ 6½
do, d sed	8½	@ 9

HOPS.

California, 1870,	—	@ —
do 1872	45	@ 55
Eastern. 1872	60	@ 62½

MISCELLANEOUS.

Beeswax, per lb	32½	@ 35
Honey, choice	12	@ 14
Los Ang. Honsy	15	@ 20
Onions	2½	@ 3
Flaxseed	3	@ —
Canary do	4½	@ 6
Mustard do, white	1½	@ 1¾
do, brown	2	@ 2½
Peas, Chili	25	@ —
Alfalfa	25	@ —
Ky. Blue Grase	50	@ —
Timothy	18	@ —
Italian Rye	35	@ —
Pirennial do	35	@ —

NUTS.

Peanuts, per lb	4	@ 6
Pecan nuts	16	@ 18
Hickory do	10	@ 12½
Brazil do	16	@ —
Prince Almonds	—	@ —
Cocanuts, per 100	6 15 00	@ —
Alm'ds h'rd shell	12½	@ 15
do, soft	23	@ 26

POTATOES.

Sweet, per lb	1¼	@ —
Humboldt	90	@1 00
Monterey	⅞	@ —
Tomatoes	70	@ 85

POULTRY AND GAME.

Live Turkeys lb	16	@ 18
Hens, per dz	7 50	@8 00
Roosters	8 00	@ 9 00
Chickens	5 00	@6 00
Ducks, tame, doz	11 00	@13 00
do, Mallard	4 00	@4 50
Geese, per pair	2 50	@3 00
Quail, per doz	2 00	@2 25
Hare, per doz	4 00	@4 50
Rabbits, per doz	1 00	@1 50
Larks, per doz	75	@1 00
Doves, per doz	75	@1 00
Plover, per doz	75	@1 00
Curlew, per doz	75	@1 00
Teal, per doz	2 00	@2 50
Snipe, Eng., doz	50	@2 00
do, small, doz	75	@1 00
Venison, per lb	—	@ —

PROVISIONS.

Cal. Bacon, per lb	12	@ 13½
Eastern do	11	@ 12
do sugared	13	@ 14
Cal. Hame	13	@ 11
Eastern do	16	@ 17
Cal. Smoked Beef	11	@ 12

WOOL, ETC.

Choice Northern	20	@ 22
Secdy	15	@ 18
Burry	12	@ 14
Oregon	—	@ —
Hides, dry	19	@ 20
do green	8½	@ 9½
Tallow	8	@ 9

FRUIT MARKET.

There are plenty of Oranges coming in from the South, and there is a shipment due to-morrow. Los Angeles supplies us with plenty of Lemons. There are some expected from Messine by the steamer. Bananas are expected every day, hnt there are none now in the hands of wholesal dealers. The supply of dried fruit is just sufficient for the demand, which is light. In Apples and pears supply light and prices have advanced.

FRUIT MARKET.

Mex, Or. per 1000	—	@ —
Cal. do	40	@50 —
Limes, per M	20 00	@25—
Cal. Lemons, bxl.	85	@40—
Messina do, bx	15 00	@ —
Bananas, per bnch	—	@ —
Pineapples, per dz	—	@ —
Apples, cat'g, bx.	1 25	@2 50
Cooking	1 00	@1 50
Pears, Eating	1 50	@2 50
" Cooking	1 25	@1 50
Pomegran'e, per 100	—	none
Grapes, Mission	—	none
Rose of Peru	—	@ —
Blk Hamburg	—	@ —
Black Prince	—	@ —
Muscat of Al'r	—	@ —
Flams Tokay	—	@ —
Black Morocco	—	@ —
Wine Grapes	—	@ —

DRIED FRUIT.

Apples, per lb	7	@ 7½
Pears, per lb	6	@ 8
Peaches, per lb	8	@10
Apricots, per lb	—	@—
Plums, per lb	5	@ 8
Pitted, do per lb	18	@20
Raisins, per lb	7	@10
Black Figs, per lb	8	@12½
White, do	15	@18

VEGETABLES.

Cabbage, per dz	50	@65
Garlic, per lb	6	@—
Green Peas	12½	@15
Green Corn per doz	—	@—
Marrowfat Squash per ton	7 50	@—
Artichokes, per lb	3	@ 4
Tomatoes, L. A.	12½	@—
String Beans, per lb	—	@—
Lima Beans	8	@ 9
Peppers dry	20	@25
Okra	35	@40

LUMBER MARKET.

CARGO PRICES REDWOOD.

Rough, per M	$20 00
Rough refuse, per M	16 00
Rough clear, per M	32 50
Rough clear refuse, M	22 50
Rustic, per M	25 00
Rustic, refuse, per M	24 00
Surfaced, per M	32 50
Surfaced refuse, per M	22 50
Flooring, per M	30 00
Flooring refuse, per M	20 00
Beaded flooring, per M	32 50
Beaded floor, refuse, M	22 50
Half-inch Siding, M	22 50
Half-inch siding, ref, M	16 00
Half inch, Surfaced, M	25 00
Half inch Surf. ref. M	18 00
Half inch Battens, M	22 50
Pickets, rough, per M	14 00
Pickets, rough, p'ntd	16 00
Pickets, fancy, p'ntd	22 50
Shinglee, per M	3 00

PUGET SOUND PINE—Retail Price.

Rough, per M	$25 00
Flooring and Step, per M	37 50
Flooring, narrow, per M	40 00
Flooring, 2d quality M	30 00
Laths, per M	3 50
Furring, per lineal ft	1c
Rough, per M	$25 00
Rough refuse, per M	20 00

REDWOOD—Retail Price.

Rough Pickets, per M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, per M	30 00
Siding, per M	27 50
Tongued and Grooved, surfaced, per M	40 00
Do do refuse, per M	27 50
Half-inch surfaced, M	30 00
Rustic, per M	42 50
Battens, per lineal foot	1c
Shingles, per M	3 50

GENERAL MERCHANDISE.

BAGS.

Eng. stand. Wh't	15½	@ —
Flour Sacks ½s	16½	@ —
" ¼s	8½	@ 9¼
Stand. Gunniee	17½	@ —
" Wool Sacks	—	@ 70
" Barley do	16	@ —
Hessian 40-in gds	—	@ 12
do 60	17	@ 17½

CANNED GOODS.

Asst'ed Table Pie Fruits, in 2½ lb cans	3 75	@ 4 —
Jams & Jellies	4 —	@ 4 25
Pickles ½ gl.	3 25	@ —

COAL—Johhing.

Australian	15 00	@ —
Coose & Bel. Bay	15 00	@ —
Seattle	16 00	@ —
Cumberl'd, cks.	25 00	@ —
do bulk	22 00	@ —
Chile	—	@ —
Lehigh	22 00	@ —
Liverpool	12 00	@ —
West Hartley	16 00	@ —
Scotch	15 00	@ —
Scranton	18 00	@ —
Vancouver's Isl.	14 00	@ —
Charcoal, per bsk	1 00	@ —

COFFEE.

Costa Rica per lb	19	@ —
Guatemala	16	@ 18
Java	22	@ —
Manilla	17	@ —
Rio	—	@ —
Ground in cs	25	@ —
Chicory	8	@ —

FISH.

Pec. Dry Cod, new bundles, per lb	8	@ 9
Salmon in hhls	8 00	@ —
do ½ bbls	5 00	@ —
do 2½ lb cans	—	@ —
do 2 lb cans	3 50	@ —
do 1 lb cans	8 00	@ —
Pick. Cod, bbls.	8 50	@ —
do ½ bbls.	5 00	@ —
Pug. Sd. Smok'd	—	@ —
Herr'g, bxs	—	@ 50
Mack'l, No. 1, ½ bls	—	@12 00
" Extra	—	@12 00
" in kits	2 25	@3 25
" mess	—	@4 50
" ex. mess	—	@5 00

NAILS.

Assorted size	5½	@ 8 —

OILS.

Pacific Glue Co.		
Neat F't No. 1	15 00	@1 20
Pure	1 20	@ —
Cocoa Nut	60	@ —
Olive Piggnioi	—	@ —
do Possel	—	@ —
Palm	—	@ —
do Bagicalnpi	—	@ —
Linseed	1 00	@1 05
China nut in cs	75½	@ —
Sperm, crude	1 25	@ —
do bleached	1 90	@ —
Coast Whales	40	@ —
Polar, crude	47½	@ —
Lard	95	@ 97½
Coal, refined Pet	42½	@ 45
Cle'phine	42½	@ —
Devoe's Bril't	42	@ 44
Long Island	42	@ 44
Eureka	42½	@ —
Downer Kerose'e	50	@ —
Gae Light Oil	42½	@ —

PAINTS.

Stand. Wh. Lead	—	@ 10
Whitening	—	@ 2
Chalk	—	@ 1
Paris White	—	@ 2½
Ochre	—	@ 2½
Venetian Red	—	@ 2½
Red Lead	—	@ 10
Litharge	—	@ 10

RICE.

China No. 1, per lb	7	@ —
do 2, do.	6¼	@ 6
Japan	6½	@ —
Patna	7	@ 7½
Hawaiian	—	@ 9

SALT.

Cal. Bav, per ton	6 50	@15 00
Carmen Island	14 00	@15 50
Liverpool fine	24	@ —
do coarse	19 00	@20 00

SOAP.

Castile, per lb	11½	@ —
Local brands	4	@ 6½

SPICES.

Allspice, per lb	17	@ —
Clovee	23	@ —
Cassia	30	@ —
Nutmeg	97½	@ —
Whole Pepper	20	@ —
Ground Allspice	—	@ 19½
do Cassia	35	@ 22
do Cloves	22	@ 45
do Mustard	25	@ 25
do Ginger	22½	@ 27
do Pepper	22½	@ —
do Mace	1 20	@1 30

SUGAR, ETC.

Cal. Cube per lb	—	@ 11⅛
Circle A cruehed	—	@ 11⅛
do granulated	—	@ 11
Golden C	—	@ 9½
do Extra	10	@ 10
Hawaiian	20	@ 22½
Cal. Syrup in bls	32½	@ —
do in ½ bls	35	@ —
do in kegs	40	@ —

TEA.

Oolong, Canton	19	@ 25
do Amoy	24	@ 50
do Formosa	40	@ 80
Imperial, Canton	25	@ 35
do Pingsuey	45	@ 80
do Moyune	60	@1 00
Gunpo'der, Cant.	30	@ 42
do Pingsuey	50	@ 90
do Moyune	65	@1 25
Y'ng H'y, Canton	28	@ 40
do Pingsuey	40	@ 78
do Moyune	65	@ 50½
Japan, ½ cheste, bulk	30	@ 75
Japan, lacquered bxs, 4½ and 5 lbs	45	@ 67
Japan do, 3 lb hxs	45	@ 90
do pl'n bx, 4½ lb	35	@ 65
do ½ & 1 lb paper	30	@ 55

TOBACCO.—Jobbing.

Bright Navys	52½	@ 60
Dark do	50	@ 55
Dwarf Twist	60	@ 65
12 inch do	60	@ 67½
Light Pressed	65	@ 75
Hard do	60	@ 70
Coun. Wrap'r	40	@ 50
Penn. Wrapper	35	@ 45
Ohio do	30	@ 40
Virgi'a Smok'g	60	@ 95
Fine cut chewing, bue'ts, per lb	75	@ 90
Banner fine cut	9 25	@ —
Eureka Cala	8 50	@ —

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. per lb	40	@ 50
Cheese, Cal., lb	17	@ 23
Lard. Cal., lb	12½	@ 15
Flour, ex. fam. bbl	6 00	@6 25
Corn Meal. lb	3	@ 3½
Sugar, wh. crsh'd	12	@ 12½
do lt. brown, lb	9	@ 10½
Coffee, Sbarboro's family gr'nd, lb		27½
Coffee, green, lb	18	@ 22
Tea, fine blk, 50, 65, 75		@1 00
Tea. finst Jap. 55, 75, 90		@1 00
Candles, Admant'c	17	@ 25
Soap, Cal., lb		@ 10
Can'd Oysters, dz.	2 50	@3 75

* Per lb. † Per dozen. ‡ Per gallon.

San Francisco Retail Market Rates.

WEDNESDAY NOON, Feb. 5, 1873

FRUITS. VEGETABLES, ETC.

The supply is nearly tbe same. Asparagus is beginning to come in more freely. There is no fruit now coming in save Oranges and Lemons from the South. These, with Apples and Pears, are the only native fruits in the merket.

Apples, per lb	5	@	8
Pears, per lb	6	@	15
Grapes	6	@	25
Apricots, lb	—	@	—
Fine Apples, each	50	@	75
Bananas, per doz	75	@	—
Cantelenps	—	@	—
Watermelone	—	@	—
Cal. Walnnts, lb	15	@	20
Cranberries, per g	—	@1	00
Strawberries, lb	—	@	—
Raspberrice, lb	—	@	—
Gooseberries*	—	@	—
Cherries, per lb	—	@	—
Oranges, per doz	75	@1	25
Limes, per doz	40	@	50
Figs, fresh Cal.	15	@	25
Figs, Smyrna, lb	25	@	50
Aeparagus, lb	35	@	50
Artiohokes, doz	50	@1	00
Brueeel's sprts,	8	@	—
Beets, per doz	20	@	—
Potatoes, New lb	6	@	8
Potatoes, sweet,	2	@	3
Broccoli, per pc	10	@	25
Cauliflower,	10	@	25
Cahbage, per doz	75	@1	00
Carrots, per doz	20	@	25
Celery, per doz	75	@	—
Cucumbers,	—	@	—
Tomatoes, per lb	25	@	—
Green Peas	15	@	—
String Beans	—	@	—
Cress, per doz bun	20	@	25
Dried Herbs, lb	35	@	50
Garlio	—	@	10
Green Corn, doz	—	@	—
Lettucs, per doz	25	@	50
Mushrooms, per lb	20	@	50
Horseradish, per lb	20	@	—
Okra, dried, per lb	50	@	—
do fresh, per lb	—	@	—
Pumpkins, per lb	2	@	3
Parenipe, doz	—	@	25
Parsley	30	@	—
Pickles, per gal	50	@	75
Radiehea, doz	20	@	25
Summer Squash	—	@	—
Marrowfat, do	2	@	3
Hubbard, do	2	@	3
Dry Lima, shl	—	@	10
Spinage, per hskt	25	@	50
Salsify, per hunch	10	@	25
Turnips, per doz	20	@	25

POULTRY, GAME, FISH, MEATS, ETC.

Poultry are scarce, but the demand is small and the market is dull. If there was only a very small increase in the supply the market would be glutted. There is a little slackness in the supply of game, owing to the rain, but that will be remedied in a day or two.

Fish is yet scarce. There are no Flounder in the market to-day, hnt there will he some to-morrow. Salmon and Trout are from $1.50 to $2.00 each. There are no fresh Mackerel in the market and Prawns are very scarce.

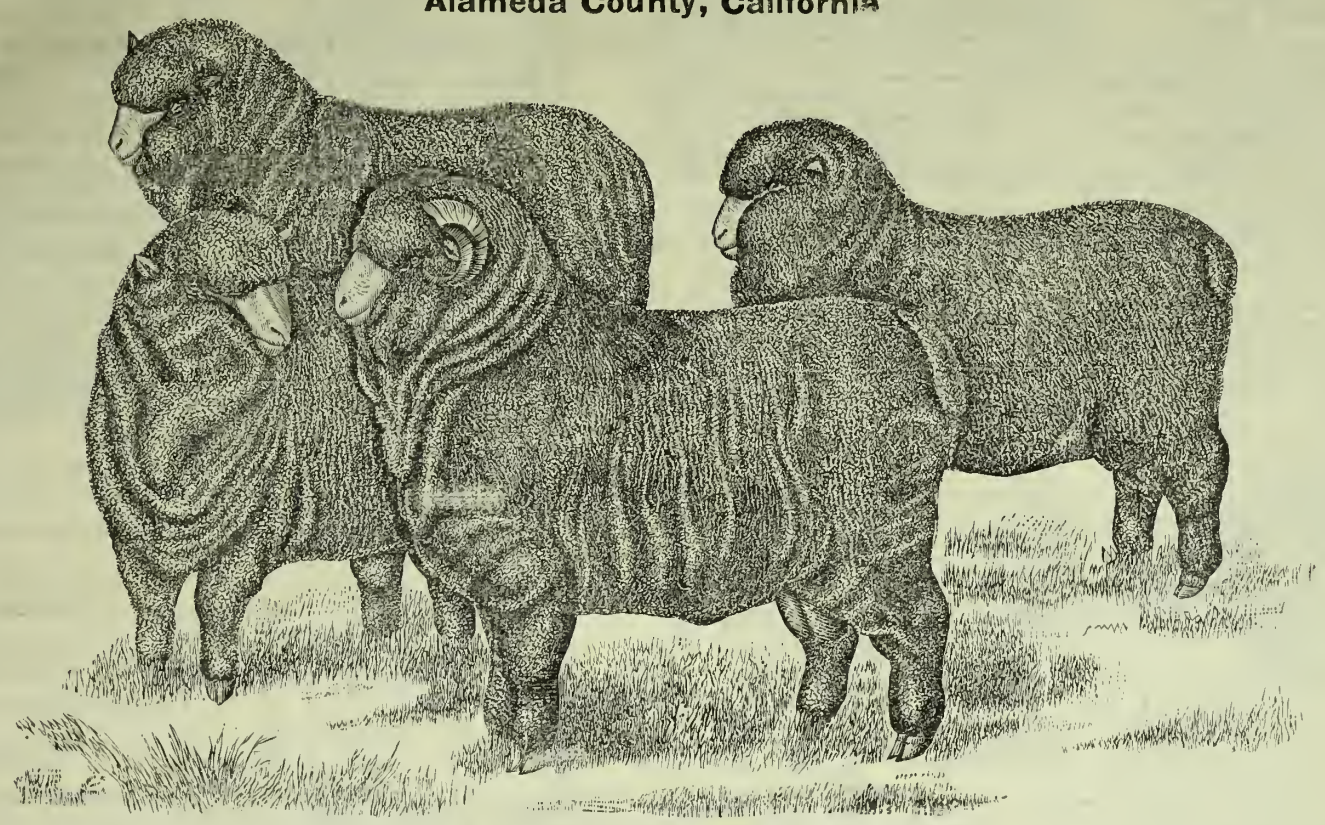
Chickens, apiecs	75	@1	00
Turkeys, per lb	30	@	—
Mal d. Can'v'Bk	50	@	62½
Tame, do	1 25	@	—
Teal, per doz	2 50	@3	00
Geese, wild. pair	00	@1	25
Tame, per pair	3 50	@	—
Snipe, per doz	3 00	@	—
Quails, per doz	3 50	@	—
Pigeons, dom. do	2 25	@	—
Wild, do	—	@2	00
Hares, each	—	@	50
Rabbits, tame	50	@	62½
Wild, do, dz	—	@2	00
Beef, tend, per lb	20	@	—
Corned, per lb	—	@	10
Smoked, per lb	15	@	—
Pork, rib, etc., lb	15	@	—
Chops, do, per lb	15	@	—
Veal, per lb	—	@	15
Outlet, do	20	@	—
Mutton chope,*	12½	@	15
Leg, per lb	—	@	1½
Lamb, per lb	18	@	—
Tongues, beef, ea	25	@	—
Tongues, pig, ea	75	@	—
Bacon, Cal., per lb	—	@	18
Oregon, do	18	@	—
Hams, Cal, per lb	18	@	—
Hams, Croes' s'o	20	@	23
Choice D'field	20	@	23

Whittaker's	20	@	23
Johneon's Cr	20	@	22½
Flounder, per lb	37½	@	—
Salmon, per lb	20	@	—
Smoked, new,*	25	@	—
Pickled, per lb	6	@	8
Rock Cod, per lb	—	@	—
Cod Fish, dry, lb	—	@	12½
Perch, s water, lb	12½	@	—
Fresh water, lb	15	@	18
Lake Big. Trout*	30	@	—
Smelts, large per lb	20	@	—
Small do	12½	@	15
Silver Smelts	—	@	—
Soles, per lb	—	@	—
Herring, fresh *	4	@	5
Sm'kd, per 100	—	@1	00
Tomcod, per lb	18	@	20
Terrapin, per doz	—	@7	00
Mackerel, p'k, ea	12½	@	15
Fresh, do lb	—	@	—
Sea Bass, per lb	—	@	—
Halibut	—	@	—
Sturgeon, per lb	8	@	—
Oysters, per 100	1 00	@	—
Chsap. per doz	75	@	—
Turbot	50	@	—
Crabs per doz	1 00	@	—
Soft Shell	37½	@	—
Sbrimpe	—	@	12½
Prawns	—	@1	50
Sardines	10	@	—

Syrup, S.F. Gol'n	40	@	45
Dried Apples	7½	@	10
Dr'd Ger. Prunes	9	@	10
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	8	@	10
Oils, Kerosone	45	@	50
Eggs	40	@	45
Wines. Old Port	3 50	@5	00
do Fr. Claret	1 00	@1	25
do Cal. dz. bot	3 00	@4	50
Whisky, C. B, gal	3 50	@5	00
Fr. Brandy	4 00	@10	00
Ricc, lb	10

MERINO RANCH, Niles Station.

Alameda County, California

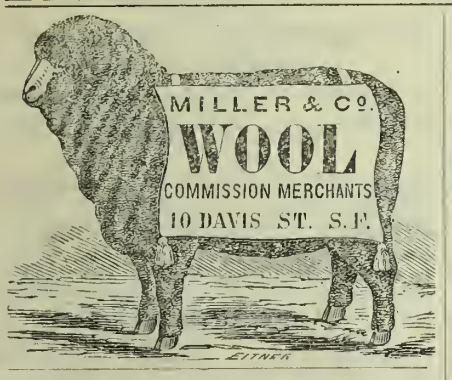


The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Severance & Peet,

IMPORTERS AND BREEDERS OF THOROUGHBRED SPANISH MERINO SHEEP



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San Joaquin and King's River

CANAL AND IRRIGATION COMP'Y.

At a meeting of the Trustees of the San Joaquin and King's River Canal and Irrigation Company, held the 21st day of January, 1873, it was unanimously

Resolved, That in order to secure a co-operation of the citizens of California in one of the most important works for the benefit of the Agricultural and Commercial interests of the State, the President is hereby instructed to open Books for the subscription of **75,000** Shares of the 100,000 Shares of **$100** each, Capital Stock of this Company, at the present cash cost of the work now done. No subscription to be received for more than 500 shares.

Notice is hereby given, in conformity with the above, that Books of Subscription for the **75,000** Shares are now open at the office of the Company, No 320 California Street, Room 9, during business hours, for 30 days.

Capital Stock, - - $10,000,000,

Divided into 100,000 Shares of $100 each.

About 40 miles of Canal are completed, and supply water for Irrigating Lands bordering on the Canal.
Surveys are made from Tulare Lake to near Antioch, say 200 miles, and work progressing.
The Company HAS NO DEBTS.
For further particulars and terms of subscription, apply at the office of the Company.
fe1-1m J. MORA MOSS, President.

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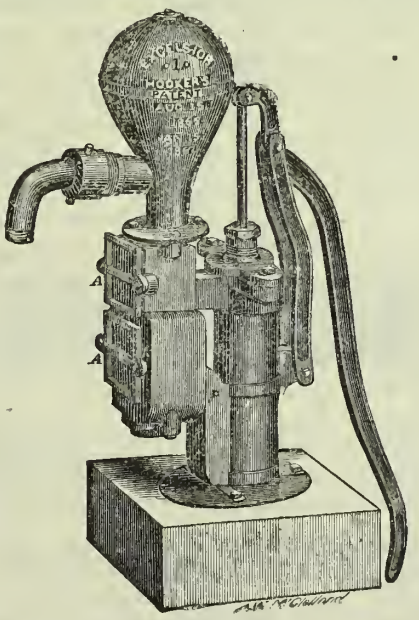
NEW TOMATO.

I introduce this season a new tomato, the Canada Victor (see reading matter in this paper), which is probably the earliest of all varieties. It combines just what is wanted, viz:—extreme earliness with large size, the round shape, solidity, richness of color, with an entire freedom from greenness and cracking around the stem, and first-class cropping qualities. Single packets of 25 seeds, 25 cts.; five packets, $1.00. Packets of 25 seeds selected from the few very earliest, 50 cts. each. My seed Catalogue free to all.

Dealers supplied at a liberal Discount.
JAMES J. H. GREGORY, Marblehead, Mass.
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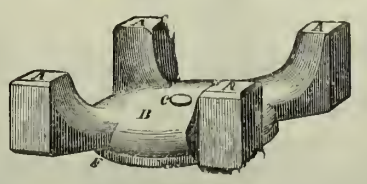
Every Pump is tested to 125 lbs. hydraulic pressure per square inch

Will pump water 250 feet high.

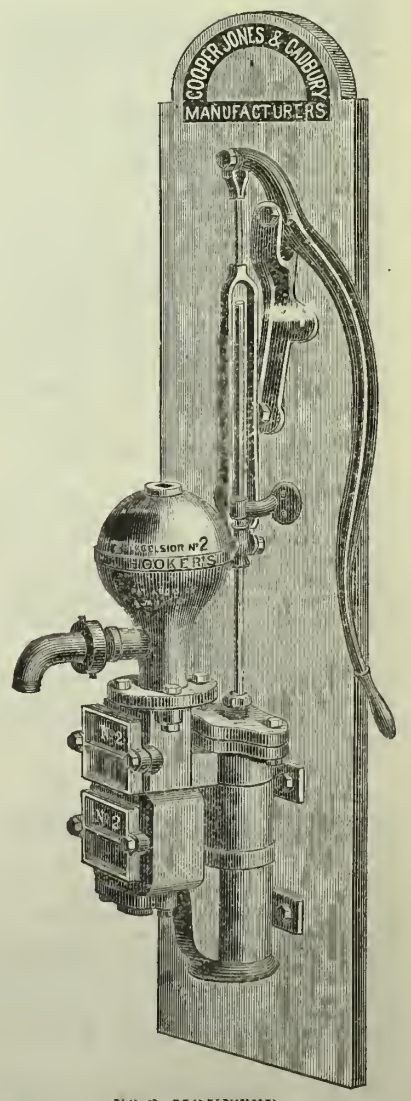
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Domestic Economy

Beans Without Pork.

Some families seem not to know that baked beans are delicious without pork if properly cooked and seasoned. We believe in cooking them a long time—four or five hours in all. We often boil a pot of beans until they are cooked thoroughly soft, take half for one day's bean soup, and use the other half, a few days later for baked beans. We pick over and wash the beans as soon as breakfast is over, and put them over the fire, well covered with cold water as soon as possible.

If the beans are old we drop in a small lump or half teaspoonful of soda. When this water boils, we turn it off, and supply its place with clean boiling water. After the beans have boiled in this water about an hour, we change the water again—sometimes three times, but never after the beans have began to come to pieces. We set them where they will not boil too hard, and cook them four or five hours, when they are well softened and separated. Then we stir into this soup, salt, and a cup of cream if we have it; if not, a tablespoonful or two of butter.

We take out half of the beans (if we have cooked enough for two meals) before seasoning the day's portion, and sometimes thin what is left for soup with hot water, and then put in the cream and salt, and boil and stir it all together. When we bake the reserved portion, we pour it into a large baking dish or dripping pan, stir in a spoonful of salt and a cup of cream, or creamy milk, and bit of butter, and bake an hour. I cannot believe that any one who tries it would prefer "pork and beans" to this. The most common mistake in cooking beans is to cook them too little. This is the cause of their flatulent tendency, and such results may be prevented by thorough cooking. The frequent changing of the water takes away the strong flavor which is disagreeable to many. Well cooked beans are among the most nutritious articles of diet.—*American Agriculturist.*

Pea Soup.

It hath been well said that soup is to a dinner what an anthem is to a sermon, and it is always desirable to have it as a first course; and in many families it will do for first, second and third course. Now we have a special fondness for pea soup, when well made, and can assure you, friends, that there are many persons who share our fondness; so we give it to you also, begging that you will prepare it and partake of it with a gusto that is seemly:

Soak one quart of peas (split if you can get them) over night; next morning early, put them over the fire with one pound of corned beef or pork (beef is the best to my taste, however,) and let them boil hard for three hours. Then add a chopped carrot and turnip, and an onion if liked; a tablespoonful of celery seed, or a handful of celery tops, and boil another hour or more; then strain through a sieve, season with pepper, and cut up two thin slices of toasted bread into the shape of small dice; put into the tureen; turn on your soup and serve. A cup of milk boiled in it for twenty minutes is an improvement. Small white beans can be substituted for peas, and made in the same manner.—*Country Gent.*

Sally Lunn and Her Cakes.

The following is given as the origin of this popular cake known as "Sally Lunn": During the emigration from France, a noble French lady went to Chelsea, London, and, determined not to live on the bounty of foreigners, opened a small shop for the sale of preserves and pastry. Her fame spread throughout the west end of the town, and orders were given to have some of her celebrated cakes sent to many large houses in St. James. The lady employed a Scotch maid servant to execute her orders; the name of this woman was Sally Lunn, and ever since a particular kind of tea cake has gone by the name of "Sally Lunn."

Irish Potatoes.—The Irish people are the greatest potato eaters in the world, and know all about cooking that fine esculent. We copy their mode of boiling potatoes from an Irish paper: "Put the potatoes in a pot or kettle without a lid or cover, and with water just sufficient to cover them. After the water comes nearly to a boil pour it off, and replace it with cold water, into which throw a good portion of salt. The cold water sends the heat from the surface to the heart, and makes the potato mealy. After they are boiled and the water poured off, let them stand on the fire fifteen minutes to dry."

A Cheap and Delicious Soup.—Save the liquor in which the nice leg of mutton was boiled to-day. It would be wicked to throw it away, for a large fraction of the succulence and nutritiveness of the meat is in it. Remove the fat to-morrow, and then put it over the fire. Add onions, carrots or turnips, sliced thin, and some parsley leaves, or lima beans, sweet corn and sliced potato, with bits of celery; add in either case rice or barley, a tablespoonful of them dry to a quart of liquor is a good rule. Do this, and at a trifling expense you may have a tureen of soup fit to be set before a king.

Calf's Liver and Bacon.—This is commonly tossed in butter; the liver sliced moderately thin, is first dressed, and the rashers of bacon afterward; serve garnished with the latter. Calf's liver may also be fried; dip the slices into seasoned beaten eggs and olive oil, and fry quickly. In France, similarly shaped pieces of liver and bacon are skewered together, then dipped into oil, and subsequently sprinkled with bread crumbs, and broiled; season and serve. When tossed without the bacon, a glass of wine may be poured into the pan, and served in the dish, with the liver arranged around.—*Ohio Journal.*

Principal Imports, with Quantities and Values, for the year ending Dec. 31st, 1872.

ARTICLE.	DENOM.	QUANTITIES. LBS. OR GAL.		PRICE IN S. F.	VAL.
Apples, Or.	bxs.	31,271	1,563,550	1½c lb	$ 23,453
Boots	cases	50,385		$26 cs	1,523,030
Candles Eastern	½ bxs	177,771	1,80,0000	17c lb	206,040
do Foreign	cases	1,000			
Cement	bbls	43,877		$3½ bl	153,552
Clothing					13,000,000
Coal, Anthracite	tons	19,610			
Australian		115,339			
Bellingham Bay		4,100			
Coos Bay		32,562			
Chile		3,682			
Cumberland		10,051	434,467 tons		3,475,736
English		29,190			
*Mount Diablo		177,262			
Seattle		14,832			
Rocky Mountain		1,862			
Vancouver		26,091			
Coffee			11,707,700	13½c lb	1,585,013
Cordage	coils	11,021	900,000	13c lb	117,000
	pkgs	3,139			
Dry Goods					15,000,000
Flour, Oregon	bbls	133,753		$5¾ bl	748,986
Hemp	bales	14,381	2,886,985	8c lb	230,959
Hides, Oregon		17,617	2,018,962	16c lb	323,034
Foreign		74,154			
Iron	bars	287,041	11,321,455	2.2c bl	248,585
	R R brs	130,330	29,385,155	1.7c lb	484,195
	pig-tons	13,547		$20½ t	278,6-8
Lemons	bxs	1,257	113,130	$8 bx	10,076
Lumber, Eastern	feet	2,870,951		$70 1000	200,970
Foreign		1,747,360		do	135,600
Domestic		271,635,000		$18 1000	4,889,430
Molasses & Syrups	bbls	1,742			
	kegs	2,975	78,522	20c gl	17,705
Nails	kegs	228,804	22,890,400	5¼c lb	1,201,746
Nuts	bags	5,656			
	cases	295	743,875	20c lb	148 775
Oakum	bales	3,117	155,850	$4 bale	12,468
Oil, Castor	cases	1,377	13,770	$1.35 g	18,480
Coal	cases	208,749	2,187,490	40c g	874 996
	bbls	2,719	122,355	40c g	49,013
Cocoa	casks	307			
	bbls	167	21,330	70c g	14,931
China	cases	25,455	254,550	60c g	152,730
Lard	bbls	2,141	96,345	90c g	86,710
	cases	5,233	52,330		47,097
Linseed	bbls	482			
	drums	1,600	31,690	98¾c g	31,185
	cases	270			
Naphtha	bbls	1,091	49,095	32½c g	15,966
	cases	1,214	12,140	32½c g	3,945
Olive	cases	7,726	77,260		40,000
Palm	casks	87	22,000	67½c g	15,125
Sperm	bbls	4,393	193,410	$1.40 g	270,774
Whale	bbls	15 271	685,440	40c g	194,176
Oranges		4,994,944			150,000
Oysters	cases	59,940	2,877,120	12½c lb	359,640
Pitch	bbls	2,056		$6.75 bl	13,743
Plaster	bbls	11.502		$4 bl	46,008
Powder	kegs	32,172			
	cases	3,833	750,740	50c lb	375,370
	pkgs	1,532			
Provisions, Bacon	cases	12,461			
	tierces	3,793	3,060,300	13c lb	397,839
	sacks	5,127			
	pkgs	88			
Butter	firkins	12.895			
	cases	82	1,342,900	20c lb	270,000
	pkgs	452			
Cheese	cases	16,354	748,305	12½c lb	93,539
	pkgs	275			
Cod	bxs	8,545	854,500	9c lb	76,905
Hams	tierces	7,831			
	sacks	5,899			
	cases	1,718	3,443,700	16c lb	551,192
	bbls	189			
	pkgs	8			
Herrings	bxs	5,928	59,280	10c lb	5,928
Laid	tierces	4,787			
	cases	12,385	1,590,750	13¾c lb	219,628
	bbls	2,312			
Mackerel	kits	26,164			
	½ bbls	3,424	865,680	15c lb	129,852
	bbls	1,472			
Pork	½ bbls	303	314,700	15c lb	47,205
Beef	bbls	452			
	pkgs	399	166,200	7½c lb	12,365
Raisins	bxs	27,562			
	½ bxs	7,033			
	¼ bxs	14,586	872,400	12c lb	104,568
	pkgs	178			
Pulu	bales	4,015	361,350	8c lb	28,908
Rice			46,704,821	3c lb	1,463,131
Saleratus	bxs	1,250	52,500	8c lb	4,100
Salmon	bbls	8,628			
	½ bbls	5,198	6,917,200	3¼c lb	222,809
	cases	43,617			
	pkgs	3,108			
Salt	tons	2,519	5,048,080	1½c lb	63,101
	cases	420			
Sardines	cases	3,850	460,000	$8 dz	346,500
Shot	kegs	440	109,750	$2 lb	219,500
Soap	bxs	14,216			
	½ bxs	6,186	1,271,808	8c lb	101,745
	¼ bxs	1,420			
Castile	cases	1,153	5,355		322
Soda	casks	300			
	drums	278			
	cases	459	7,154,915	3c lb	228,744
	pkgs	1,810			
Spikes	kegs	10,297	1,029,700	6c lb	61,782
Spirits Turpentine	cases	4,997	49,970	70c g	34,980
Spirits Alcohol	bbls	107	12,724	30c g	3,817
	cases	823			
Brandy	¼ casks	319			
	bbls	1,104			
	hg-hds	3			
	casks	57			
	cases	1,977	82,300	$3 g	246,900
	⅛ casks	560			
	¾ pipes	45			
	octaves	100			
Gin	½ pipes	23			
	¼ pipes	45			
	hhds	87			
	bbls	109	91,481	$1 g	91,481
	cases	2,887			
	¾ pipes	2			
	casks	278			
	¼ casks	175			
Liquors	cases	2,708	8,124	$5 g	40,620
Rum	bbls	833			
	¼ casks	59	40,370	$1.50 g	62,400
	hhds	39			
Spirits pure	bbls	766	3,066	90c g	2,760
Whisky	casks	110			
	¼ casks	90	154,200	$1.40 g	215,880
	bbls	22,497			
	½ bbls	1.724			
Sugar			79,991,497	5c lb	3,992,014
Tea			15,737,918	35c lb	5,559,947
Tobacco	cases	26,214	3,400,000		1,000,000
	pkgs	15,214			
Wheat, Oregon	centals	95,175			152,000
Wine	pipes	37			
	casks	780			
	½ casks	63			
	¼ casks	1,657			
	⅛ casks	2,467	592,324		423,500
	bbls	5.381			
	kegs	39			
	baskets	6,971			
	cases	16,288			
Wool, Oregon	bales	4,911	3,042,037		826,933
Foreign	bales	9,177			
Yeast Powders	cases	3,121	218,470	55c lb	12.016
Total					$55,481 475

*—For eleven months.

Detailed Account of Exports from San Francisco to various Countries for the Year Ending December 31st, 1872.

ARTICLE	AUSTRALIA		BRITISH COLUMBIA.		CENTRAL AMERICA.		CHILE.		CHINA.		EAST INDIES.		GREAT BRITAIN.		HAWAIIAN ISLANDS.		JAPAN.		MEXICO.		NEW YORK.		NEW ZEALAND.		PANAMA.		PERU.		RUSSIAN POSSESS'NS		SOCIETY ISLANDS.		SOUTH AMERICA.		SOUTH SEA ISLAND.		EAST BY RAIL.		TOTALS.	
	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.	QUAN.	VALUE.
Barley	16 833																																					
*Flour	16,318	$26,051	12,063	$18,627	229	$ 359	11,016	$12,929	45	$ 569,957	67	$ 5,700	2,940	$ 31,773	60	$ 8,110	1,407	$ 2,090																				
Hides		74,745	3,652	20,152	44,996	267,017				2,103			2,154			44 871	6,968	43,009	825	8,858																
Oats	45	78	3,611	6,102															73	1,137																
Oil					576	1,055				1,235																										
Oranges	655	43,783	2	1,10			13,005	4,810		315,611																										
Quicksilver	28,971	47,616	1,124	2,079	68	149		1,121		1,751		140																								
Wheat	5	30	238	259		7,787		42																												
Wine		100,491		628,769		158,347		55,678		500,326		7,216		922		1,568																				
Wool																2,815																				
†Oth'r Ex's																																				
Totals		$292,794		$796,148		$ 188,965		$81,612		$1,379,985		$36,614		$10,961,361		$886,571		$988 489		$1,181 173																

* Besides the amounts and values given in the above table, there has been exported to the Philippine Islands 4,200 barrels of flour, worth $24,700, and to Table Bay, South Africa, 2,500 barrels of flour, worth $14,701.

† Under the heading of "Other Exports" there has to be added to the above goods to the value of $14, exported to the Philippine Islands; of the value of $6,154, exported to Honolulu; of the value of $500, exported to the Fiji Islands, and of the value of $127,224, exported to New Bedford.

Nursery Notices.

Kelsey's Nurseries,

OAKLAND,

Alameda County,.....Cal.

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[ESTABLISHED IN 1852.]

Containing the Largest and Best Assorted Stock of

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On the Pacific Coast.

Embracing—FRUIT TREES AND PLANTS of all and every kind, SHADE AND FOREST TREES, EVERGREEN AND ORNAMENTAL TREES AND PLANTS, FLOWERING SHRUBS, HOT HOUSE AND BEDDING PLANTS, BULBS, Etc. Etc.

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THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

For the Yard, for the Sidewalk, or the Roadside.

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Fruiting Mulberry,

Of all varieties, and for Silk Culture.

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Of every kind—grown in the best Nurseries in the State—for sale at the Lowest Prices.

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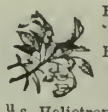
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A. D. PRYAL,

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2v5-2m G. W. McGREW.

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Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

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From 2 to 10 feet high. Price, $10 per hundred. And a very superior lot of

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[Established 1852.] OAKLAND, CAL.

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THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Coast. Comprising in part Cape Jasamincs, Camellias, Azaleas, Maguolias, Araucarius, Weeping Cedars, Golden Arbor Vitæs, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rarc merit. Tuhe Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m JAMES HUTCHISON.

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For Spring of 1873.

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ja25-4t Washington City, D. C.

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5,000 BLUE GUM,
3,000 ROSES (Choice Varieties),
And a general assortment of Nursery Stock.

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DO YOU WISH A COLLECTION OF

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Or a Fine assortment of

Ornamental Shrubs?

Then call at the

BELLE VIEW NURSERY,

Telegraph Road..... .....OAKLAND.

2v5-3m **S. NOLAN, Proprietor.**

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—AT THE—

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NAPA COUNTY,..... .....CAL

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Many of ths Choicest Wine Grapes can he furnished in large quantities, at from $5 to $7 per thousand.

Rooted Vines, $2 per hun red or $15 per thousand, delivered at ths Railroad Station.

Send all orders in early to

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St. Helena, Napa County, Cal.
24v4-2m

King's Nursery,

ELM Street, between Telegraph Avenue and Broadway,

OAKLAND,

Green House Plants,
Evergreen Trees,
Shrubs, Roses, etc.

100,000 Monterey Cypress.



A superior stock of large sized Australian Gum trees, including: — Eucalyptus Globolus (Blue Gum)—extra fins street and shadc trco. Eucalyptus Vimenalis—both sorts very popular. Acacias in variety. Monterey Pines, Lawson's Cypress, stc., etc. Orders attended to. Address

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Has constant- ly on hsnd all varieties of FRUIT AND ORNAMENT- AL EVER- GREEN and DECIDUOUS SHRUBS; also a largs assort- ment of Choice ROSES too nu- merous to mention. Green Houss Plants, Flow- ers aud Bulhs, Garden, Grass and Flower Seeds of all kinds, are for sale hy

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FRUIT AND ORNAMENTAL TREES.

Glen Gardens, one Mile east of Sacramento.

My stock embraces all ths most desirabls varieties known, including several new Peaches imported from England, among which are ths Early Beatrice, Esrly Louise snd Early Rivers—all earlier than Hsle's - the Beatrics undoubtedly reaching the practical limit to earliness, being twenty days earlier than Hale's.

For late varieties I havo the Salway (the premium Peach at the State Fair), and the Freemason, the most valuable late Peaches in cultivation.

Blackberry, Raspherry and Strawherry Plants, all at the lowest market prices for cash.

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PLANTS! PLANTS!

60,000 Evergreen and Flowering Shrubs

AT GREATLY REDUCED RATES.

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1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

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SHADE TREES! SHADE TREES!!

In Harbison's Nursery, one Mile below Sutterville, on the Riverside Road.

My stock of Trees is of the most desirable varieties, well grown, and cannot fail to please PLANTERS and DEALERS, hoth as to STYLE and PRICE. Trees carefully packed and deliverod to the cars and hoats, also to all parts of the city, without additional charge. Examino Trees at Nursery, or address

J. S. HARBISON, Ninth Street,
jan18-1m Between M and N, Sacramento.

T. CORLEY,

Nurseryman and Florist.

The undersigned has continually on hand a large assortment of finest FRUIT, SHADE AND ORNAMENTAL TREES, FLOWERS, SHRUBS, POT PLANTS, etc., of the most varied and choico description, which he sells at lowest rates. Trees and Plants securely packed to travel any distanco. The undersigned, heing a practical Nurseryman, offere his services for laying out of gardens, plots, etc. T. CORLEY,
2v5-3m No. 315 Washington st., San Francisco.

OSAGE ORANGE HEDGE PLANTS

FOR SALE AT THE FOLLOWING RATES:

First-Class.....$9.00 per thousand
Second-Class.....$6.00 per thousand
Third-Class.....$4.00 per thousand

Ten per cent. discount mado for any thing over 5,000. Orders promptly filled. Address

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23v25-3m Vaca Station, Solano County, Cal.

RAISIN GRAPE VINES.

10,000 Roots and 50,000 Cuttings of the White Muscat of Alexandria

For sale at the Lowest Market Rates. Can supply Cuttings of nearly all the hest Wine Grapes of ths State. Address

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ja25-1m Soquel, Santa Cruz County, Cal.

100,000 AUSTRALIAN GUM TREES,

Including all varieties—OUT-DOOR grown, healthy and strong. In good condition for transplanting and transportation. For sale at $5 to $10 per 100. Grown at Fitchhurg, between Alameda and San Leandro.

Address, HENRY S. FITCH,
3v5-2m 506 Montgomery Street.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETTS, for sale at LOWEST RATES. Orders may bs addressed through Dewey & Co., of tho Rural Press, Drake & Emerson, No. 521 Sansome street, San Francisco, Robt. Williamson, Capital Nurseries, Sacramento, or to me, CALVERT T. BIRD,
3v5-2m San Jose, Cal.

Our Seedsmen.

New York Seed Warehouse.

Established in 1852.

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[Successor to C. L. Kellogg]

Wholesale and Retail Dealer in



A Splendid Stock of Grass Seed, Embracing,

Mesquit, Kentucky Blue Grass, Orchard, Red Top, Rye snd Timothy; Fine Mixed Seed for Lawns; White and Red Clover Seed; California and Chile Alfalfa.

Dutch Bulbous Roots, imported from the hest Flower Nurseries of Holland.

Agent for ths **Genuine Languedoc Almond Tree**—By ths 100, at from $12.50 to $25.00. 100,000 Eucalyptus or Australian Gum Trees, at from $15 to $25 per 100. California and Australian Seeds. Garden Hardware, Etc. Seeds Warranted Fresh and Purs. Catalogues free on application.

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SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure Kentucky Blue Grass, Red Top, Rye Grasses, Orchard Grass, Timothy, Alfalfa, White, and Red Clover Seed,

Mesquit Grass Seed.

Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of tho Valley, new Gladiolus, Etc.

Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

Rustic and Wire Baskets, Flower Stands, Fruit and Ornamental Trees, Etc.,

AT THE OLD STAND.

Send for Catalogues. **E. E. MOORE,**
425 Washington street,
14v4-3m San Francisco, Cal.

Seeds! Seeds!!

By W. R. STRONG,

8 and 10 J St., SACRAMENTO.

My stock of Seeds this season is larger and in greater variety than can bs found elsewhers on the Pacific Slope, and of the last season's growth.

Garden, Flower and Field Seeds;

ALSO,

FRUIT, SHADE, FOREST and EVERGREEN TREE and SHRUB SEED.

Trees and Tree Seedlings, Fruit, Timber and Ornamental, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will he mailed free for ono year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

Vick's Flower Seeds, Bulhs, Chromos and catalogues on hand and supplied at strictly his rates.

Seeds and small seedlings forwarded hy mail to any part of the United States. My catalogues are now ready, and furnished free on applicatlon. [3v5-2m

SEEDLINGS AND ROOT GRAFTS

Should he ordered now. W. F. HEIKES, Dayton, Ohio.

FLAX SEED AND CASTOR BEANS.

Pacific Oil and Lead Works,
SAN FRANCISCO,

Ars prepared to

Furnish Seed and Contract for Next

Year's Crop of Flax Seed snd Castor Beans at rates that, with proper cultivstion on suitshls land, will make them among ths most profitahls Crops grown.

For further particulars address

PACIFIC OIL AND LEAD WORKS,
3 and 5 Front Strest.....SAN FRANCISCO.
21v4-3m

TO FARMERS AND MARKETMEN.

You want none hut ths very hest of seed, grown from carefully selected ssed stock. With the money you have to invest in manure, help and glass, *you know you cannot afford to use any other;* you feel very anxious about it; try mine. Cstalogues free to all.

N. B.—Call in ths Spring and scs what onions, cahbages, etc., I set out to grow seed from.

JAMES J. H. GREGORY,
fe1-3t Marblehead, Mass.



I was the first to introduce to the public the Hubbard Squash, American Turban Squash, Marblehead Mammoth Cahhage, Mexican Sweet Corn, Phinney's Watermelon, and many other

New and Valuable Vegetables.

This season I have a new and exceedingly valuahls squash, new varieties of corn, three fine melons, snd other choice new vegetables for my customers.

My business is to supply, what every good farmer is anxious to get, the very best of vegetahle seed. I grow a hundred and fifty kinds on my four seed farms, right under my own eye, *making new vegetables a specialty,* hesidss importing their choicest varieties from European growers. A fine selection of flower seed, home grown and imported, will also he found in my Cstalogus, which will he sent *free* to all applicants.

As stated in my Catalogus, all my seed is sold under three warrants. 1st: *That all money sent shall reach me.* 2d: *That all seed ordered shall reach the purchaser.* 3d: *That my seeds shall be fresh and true to name.*

JAMES J. H. GREGORY,
fe1-3t Marblehead, Mass



ILLUSTRATED WORK for January, 1873, now out. Issued as a Quarterly. The four numbers sent to any address by mail for 25 cents. The richest and most instructive Illustrated and Descriptive Floral Guide ever issued. You will miss it if you order Seeds before seeing Briggs & Bro.'s Quarterly. We challenge comparison on quality of Seed and prices and sizes of packets. Our "Calendar Advance Sheet and Price List for 1873" sent free.

Address, BRIGGS & BROTHER,
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H. K. CUMMINGS. 1858.

J. M. MAXWELL, 1871.

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415 and 417 Davis street, cor. of Oregon, San Francisco

Our husinoss heing exclusively Commission, we have no interests that will conflict with those of ths producsr.

4v23-1y

JAS. G. STEELE & CO.,

Chemists and Apothecaries,

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Between Commsrcial and Clay, San Francisco, Cal.

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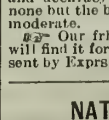
IN ALL KINDS OF PURE DRUGS AND CHEMICALS Genuine Patent Medicines, Trusses, Colognes, Perfumes Soaps, Hair Oils, Pomades, Fancy Goods, Sponges, Brushes, Combs, etc.

Those Goods are new and fresh, of the best qualities, and will be sold at very low prices. Please call and examine the stock, hefore purchasing elsewhere.

Physicians' Prescriptions compounded with great care and accuracy, at all hours of ths day and night, and none but the best articles used in their preparation. Prices moderate.

☞ Our friends and customers residing in the country will find it for their advantage to ordsr from us Goods sent by Expross to any part of the United States.

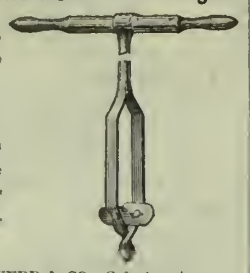
NATIONAL DRY HOP YEAST,



Mannfactured at Seneca Falls, N. Y. The attention of GROCERS and FAMILIES is called to this Yeast as the most reliable and uniform article ever offered to the trade—being purely vegetable, wholesome and nutritious, and brought to the highest degree of perfection in its preparation. Its popularity is already manifest from the rapidly increasing demand since its recent introduction into this market. We solicit a trial, as the most satisfactory evidence of its value. JONES & CO., Agents,
215 and 220 Front Street, San Francisco.

FARMERS, SAVE YOUR TIME BY USING

Stickney's Patent Post-Hole Auger.



They are adjustable, and will force a hole from

4 to 8 inches

In any kind of soil, with perfect ease. They are made of solid CAST STEEL, and will never wear out.

PILSBURY, WEBB & CO., Sole Agents.
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EGGS FOR HATCHING

FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Irelaud; HOUDANS, direct from France; SILVER SPANGLED HAMAURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Five Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.

Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China ank Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to **THOS. E. FINLEY,** Manager,
California Stock and Poultry Association.
OFFICE—No. 113 Leidesdorff street, S. F. 5v5

DESIRABLE OFFICES

TO LET

Cor. Montgomery and California Streets,

SAN FRANCISCO.

We have some very desirable rooms to let for business offices, at moderate rates, In the best location in the city. Apply at this office.

FRESH GARDEN SEEDS.

ALSO,

Grass and Clover Seeds

ALFALFA.

Trees, Plants, Roots, Etc.,

For Sale at Wholesale or Retail by

GEO F. SILVESTER,

No 317 Washington Street,

☞ Send for a Catalogue.

GUANO.

100 Barrels Guano for Sale,

In quantities to suit purchasers.

6v2-1y-16p GEO. F. SILVESTER.

Angora Coat Breeders, Attention!

At a meeting of the Goat Breeders of California, held at Sacramento, February 28th, 1872, an Associatiou was organized, officers elected and other business transacted, when W. J. Prosser offered the following resolution, which was adopted:

RESOLVED, That the Secretary he requested to forward a printed circular containing proper instructions to each member of the Society, requesting him to return to him the number of pure-blood and differeut grade goats in his possessiou, aud from wh om the original stock was procured; which returns the Secretary shall record In a book kept for that purpose, such book being accessible to all members of the Association, and present at all stated meetings of the society.

In accordance with this resolution, the Secretary herewith presents a circular in blank, which every goat breeder, whether a member of the Association or not, on this coast is requested to cut out and carefully fill up and transmit at his earliest conveuience to the Secretary at El Dorado, El Dorado Co., Cal.

The object of the Association is to promote acquaintance amoug breeders of Angora stock; to impart information relative to the valuable characteristics of the animal; to obtain knowledge of the best system of breeding, and to provide for the manufacture and sale of the fleece. It is further requested that all goat breeders not yet members of the Association, forward their names to the Secretary for enrollment as members of said Association.

CIRCULAR.

The followlng returns are made to N. GILMORE, Secretary of the Association of Breeders of Angora Goats of the Pacific Coast, by....., of the Town of..... County of....., State (or Territory) of....., made this..... .....day of..... 187...

Procured my stock from Mr.....of.....,.....County, Stare of.....187.... Started with.....head of.....blood Bucks, and .....head of.....hlood Ewes.

HAVE NOW ON HAND	PURE BLOOD.		GRADE BUCKS.					NATIVE EWES.	GIVE THE EWES ONLY IN BAND OR FLOCK.				
	Bucks	Ewes.	½	¾	⅞	15-16	31-32		½	¾	⅞	12 16	31-32 or over.

What is the character and altitude of your pasturage or range? Answer fully, giving diffe reut grasses and undergrowth.

Have you any huckeye on your range? Answer.—

Do your Goats eat of either tho nuts or hark, and if so, what are the effects? An swer fully.

Have you at any time had any disease in your flock, and if so, its uature and effects, and also your remedies aud results?

In what months do you have your klds dropped?

What has heen your per centage of losses in kidding? Answer.—

How many klds did you raise in 1872, and what grade?

ANSWER.	PURE BLOOD.		GRADE BUCKS.					GIVE THE EWES ONLY IN BAND OR FLOCK.					
	Bucks	Ewes.	½	¾	⅞	15 16	31 32	½	¾	⅞	15 16	31-	or over.

What valuatiou did your County Assessor place per head for the year 1872? Answer—$.....for pure, and $.....for grades. And what was the total assessed value of flock? Answer—$.....

In what year did you shear your first fleeces, and how many? Answer—In 18.....fleeces..... .....lhs.

How mauy fleeces did you shear in 1872? Answer—.....Floeces.....Pounds.

How much wool (Mohair] have you on haud, and what grade? Auswer—.....pounds—about..... pounds of pure hlood, and.....pounds of grade wool.

How many fleeces will you shear in spring of 1873, and what grade? Answer—Will shear.....head of pure bloods; .....head of grades, consisting of.....head of ¾; .....head of ⅞; .....head of 15-16; and.....hesd of 31-32 and over, and expect.....pounds of wool.

At what time iu the year do your Goats hegin to shed their fleece? Answer—

Please give me the names and P. O. address of all the persons in your County (as far as you know) who are engaged in the husiness, with the number and character of their Goats, and from whom they procured stock, and also the amount of fleece they will have next spring. Answer—

*Will you save all your fleece next Spring, and ship to such point as I may direct, and take therefor whatever sum it may n.t, after deducting freights and the necessary commissions for handling? Answer—

Are there any Goats for sale in your neighborhood, and if so, what grades and what price? Answer—

*NOTE The object of these estimates of fleece, and collecting it at one place, is to make it an inducement for manufac urers to seek for it, and thereby secure to breeders a MARKET, and at better rates than can possibly be obtained if each one acts alone.

Whenever the fleece, on opening it, gives any appearance of matting or felting next to the body of the Goat, or whenever there is any appearsnce of shedding, SHEAR IMMEDIATELY and roll each fleece neatly by itself. FLESH side out, and tie with twine and sack separately the different qualities or grades, and if the weather is cold or stormy, shelter the Goats at night and partially through the day, until the new growth starts. If with kid at time of shearing, handle gently and avoid turning on the back.

Any questions that cannot be fully answered, or remarks too lengthy for this, will be thankfully received on a separate sheet, and persons are are requested to correspond at any time with the Secretary, who will furnish them with any information in his possession.

Buyers' Directory.

Under this head will be found the names and address of some of our best, most extensive and reliable tradesmen.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. 519 Sansome street, S. F. All orders promptly attended to.

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 724 Market st., S. F.

I X L Plating Works, 715 Mission street, San Francisco. Table Ware re-plated to look like new. Table Spoons, Forks and Knives three dollars per dozen. If sent by Express, will be returned C. O. D.

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Common Furniture, Bedding and Upholstery Goods, No. 725 Market street (Bancroft's Building), San Francisco.

Jacob Schreiber, Dealer in Live Geese Feathers, Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

A. Greenebaum & Co. (Successors to Herman Heuck), Manufacturers, Importers and Dealers in Havana and Domestic Cigars, Tobaccos, Snuffs, Pipes, Matches, etc. 233 Kearny street. Give them a call.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns cut, and Teacher of her system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 34 Third St. JOHN D. GODEUS, Proprietor.

Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

R. D. Mowry, Poultry and Game Dealer, Wholesale and Retail Dealer and Commission Merchant Stalls 103 & 104 California Market. Orders solicited and promptly delivered free in the city.

Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. List and Rag Carpets for sale. Send for Circular. Address, ALEX. MACKEY.

HOW WHEN & WHERE TO GET THE BEST HELP, GO TO THE CAL. LABOR & EMPLOYMENT EXCHANGE 637 CLAY STREET AND 630 COMMERCIAL STREET SAN FRANCISCO. MECHANICS, LABORERS, MINERS, FARMERS, SERVANT GIRLS - AND ALL OTHER KIND OF LABOR SENT TO CITY & COUNTRY.

25v4-cow

Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

Carpets, Oil Cloths and Upholstery Goods,

IS AT

SCHLUETER & VOLBERG'S,

14 Third Street,..... .....Three doors from Market,

SAN FRANCISCO.

6v5-3m

Attention, Owners of Horses.



The Zinc Collar Pad is guaranteed to cure the worst cases of raw and inflamed sore neck in Ten Days, and work the horse every day, or money refunded; and will not chafe or wear the mane off of the neck. For sale by Saddlery, Hardware Establishments and Harness Makers. Manufactured by the Zinc Collar Pad Co., Buchanan, Mich. fe8-4t

5,000 AGENTS WANTED.—Samples sent free by mail, with terms to clear from $5 to $10 per day. Two entirely new articles, saleable as flour. Address, N. H. WHITE, Newark, N J

TO FARMERS AND RANCHMEN.

Improve the Breed and increase the Size of your

TURKEYS.



Try the Cross of the Bronze Turkey

WITH YOUR COMMON STOCK.

I am breeding from Fowls weighing 64 pounds to the pair, and have for sale a few Gobblers and Pairs. Orders for Eggs received now.

A Bronze Gobbler running with ordinary Hen Turkeys, will make a difference, in a brood of twelve young Turkeys, of **five pounds each, that is sixty pounds,** worth, at 25 cts. per lb., **fifteen dollars,** besides a much greater percentage of the young reaching maturity, owing to the extreme hardiness of this breed.

This breed of Bronze Turkey is remarkable for its hardiness as well as great size.

Give them a Trial. Perfect Satisfaction Guaranteed.

☞ Send for a Circular to

GEO. B. BAYLEY,

Importer and Breeder of Choice Fowls,

6v5-tf Box 659 San Francisco.

EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,
6v5-2m Lock Box 1874, San Francisco, Cal.

POULTRY.

☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,
Spangled Gold and Silver Hamburghs,
Spangled Gold and Silver Polish,
Houdans, Buff Cochins, Silks, Black Spanish and Games.

M. FALLON,
Importer and Breeder of Choice Poultry,
Seventh and Oak streets, Oakland.
5v5-3m

FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
6v5-3m Stalls 103 and 104 California Market, S. F.

THE PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office, for $1.75, or sent postage paid for $2.00.

DURHAM STOCK SALE.

Will be sold at auction, on the Agricultural Fair Grounds, Sacramento, TUESDAY, February 25th,

The Entire Herd of Short-Horned Cattle

Belonging to R. M. SPARKS, of Marysville,

Consisting of Five (5) Bucks and Seven (7) Cows and Heifers; also, Twenty-five Berkshire Pigs from four to six months old.

Pedigrees of the above stock guaranteed.

Seven months credit on notes with approved security will be given. Interest, 1 per cent. per month.

ROBERT BECK.
Sacramento, February 5, 1873. fe8-3t

DEVON STOCK FOR SALE.



A Herd of superior Devon Cattle—Milch Cows and Calves from full blood to grade stock, all of a very superior character

From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,
jan25-3m16p Three Miles from Menlo Park.

GUADALUPE ISLAND COMPANY.

Notice is hereby given to the Stockholders of the Guadalupe Island Company that a special meeting will be held at its office, 306 Pine Street, on February 22d, 1873, at 3 o'clock P. M., for the purpose of adopting By-Laws. By order of

WM. M. LANDRUM, President.
ARTHUR RODGERS, Secretary. fe8-2t

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, FEBRUARY 15, 1873. [Number 7.

Late Rose Potato.

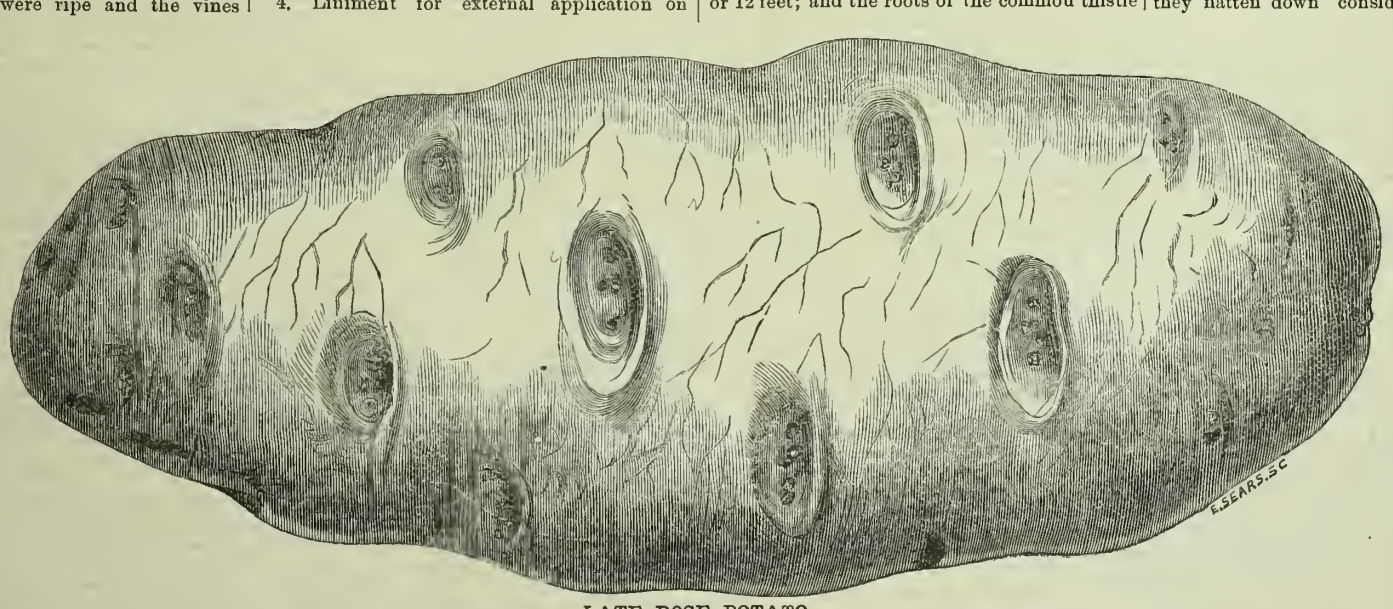
This valuable potato, which is now for the first time offered for sale, differs from all other varieties, so far introduced, inasmuch as it is not claimed to be a new seedling, but a subvariety, or a sport of the well known and popular sort—*the Early Rose*—which was first introduced to the public by us in the spring of 1868, and has caused more excitement, both in this country and Europe than all other varieties combined. The characteristics of the Late Rose are so distinctly marked, and have proved of so permanent a character, that it actually possesses more distinct and individual qualities than many seedlings.

The parent hills of the Late Rose were found a few years ago in Washington County, N. Y. When digging a large field of Early Rose potatoes it was observed that a few hills were not fully matured, and the vines green and growing, while all the others were ripe and the vines dead. Those few hills were not disturbed until some weeks later, when their tubers were found to be much larger and their product greater than that of the hills dug previously. These tubers were carefully saved and planted the following year, when to the surprise of the growers the same peculiarities continued.

For three years they have been planted and cultivated alongside of the Early Rose under exactly the same circumstances, and have in every instance shown the same characteristics, so that we do not hesitate to pronounce them permanent and positive. The main difference between the Late and Early Rose may be summed up as follows: The Late Rose ripens two or three weeks later than the Early Rose, and has proved to be much more productive, yielding the past season 250 to 300 bushels to the acre—is also hardier, healthier, and a better keeper, retaining its good quality till new potatoes come in. In the eating quality, color, shape, and other external characteristics, there is but little, if any difference between the two varieties, except when first dug the seed end of the Late Rose is of a deeper red, enough so as to easily recognize the variety.

It also grows to a larger size, and thus far has not been affected by rot, while Early Rose grown in the same field were more or less affected. In introducing the Late Rose, we do not claim for the new comer that it will supersede the Early Rose, which, as an early potato, has not as yet been eclipsed; but as a variety, that is destined to fill the great desideratum of a first class winter potato, of the eating quality of the Early Rose, combined with the keeping qualities of the Peachblow, and at the same time not requiring a much longer season to mature its crop, than the early varieties.

We are indebted to B. K. Bliss & Son, N. Y., for engraving and description of this new and valuable variety; samples of which, raised by C. H. Dwinelle, of Oakland, can be seen at our office. They were planted as late as June last, and yet made a satisfactory growth. Mr. D has a small quantity on hand, which he is distributing in sample lots of four pounds each. A special premium was awarded them at the late State Fair.



LATE ROSE POTATO.

Epizooty in Gilroy.

Many very fine and valuable horses are owned in this vicinity, says the *Gilroy Advocate*, and the following receipe may be useful. It was sent by a gentleman in Buffalo, New York, to the editor of the *Turf, Field and Farm*, and is recommended as being as quick and speedy a cure as any yet discovered.

1. Feed warm bran mashes twice a day, and take the liquor of boiled flax-seed to mix with the mash.

2. Two ounces of spirits of nitre, mixed with luke-warm water, one application daily.

3. A little pure whisky daily, to stimulate, say half-pint.

4. Liniment for external application on throat—one-third hartshorn, one pint sweet oil.

5. Sponge the nostrils with a solution of salt and hot vinegar; also wash the mouth with a solution of tho same. Blanket thoroughly and a little exercise daily. Wet the hay with vinegar.

From the Monthly Report of the Department of Agriculture, for Jan., 1873, just received, we glean the following: New Jersey, in Nov. and Dec., horses were attacked by the epizooty; very few died, but some of those were very valuable. Those did best who kept their horses in the stables without giving any medicine, or resorting to any other treatment than due regard to cleanliness.

In Pennsylvania very few horses escaped the epizooty, and very few died with it. Only such horses as were worked or unnecessarily exposed, died. Horses kept warm and clean, not worked or exposed, with light feed, such as bran and boiled oats with little hay, were successfully treated.

In Texas, the epizooty not more severe than a common distemper. Tennessee, a warm stable, a dry bed, mild food, gentle exercise, avoiding exposure to wind and rain, constitute the remedy. Sumner county, those animals that were given a generous and varied diet, without dosing, did much the best, even though they had no shelter. In Giles county, epizooty mild among horses, but very fatal among jacks.

In West Virginia, the smallest amount of medicine possible, in ordinary cases none at all has proved the most effective mode of treatment. In Ohio the epizooty is reported to have been a benefit to the horses in agricultural districts; coming as it did, after the farm work was done, the stables were put in good repair and unusually good care taken of the stock, so that they are now above an average good condition.

Similar reports to these could be selected from every Western State; so it would seem to be nothing very alarming after all, and coming upon us in the warmth of spring, need not be fatal to any great extent, if we simply give our horses good care, very light work or none at all for about two weeks, and little or no medicine.

Roots of Plants.

In loamy or sandy soils, the roots of trees have been found to penetrate to the depth of 10 or 12 feet; and the roots of the common thistle have been traced 6 or 7 feet below the surface. Wheat, if planted in a mellow, rich soil, will strike the roots three feet downward, at least, and elongate much further horizontally. The roots of oats have been discovered at 18 inches from the stem, and the long thread-like roots of grass extend still further. The roots of an onion are so white that, in black mold they can be readily traced, and on a trenched or spaded soil they have been followed to the depth of two feet. The potato throws out roots to the distance of 15 or 20 inches; and the tap-rooted plants, turnips, beets, carrots, etc., independent of perpendicular roots, spread there fibres to a distance which equals, if it does not exceed the potato. We are not now referring to the farming lands of our State, as our province here is horticulture. Deep working of the soil is good everywhere, and for everything; and where land is not naturally mellow and well drained the subsoil plow must be used. But for gardens and small lots of ground for fruit trees, shrubbery and flowers, it is perfectly absurd to expect to succeed unless the ground is so mellow as to allow their roots, also, to penetrate and grow freely; and, to effect this, making the earth "like an ash heap," and deep, too, nothing can be so effectual as trenching, or else piling fresh and friable mold to such a hight as to completely effect the same object.

Tobacco.—We have received a pamphlet containing the Address of the Tobacco Association of St. Louis, Mo., and list of premiums for the Grand Tobacco Fair to be held in June 1873; together with Essays and practical information in regard to the culture of Tobacco. A valuable pamphlet of 59 pages.

Hydes's Steam Plows.

Mr. Oliver Hyde of this city, inventor of Hyde's patent steam plows has completed this week a very large plow, which is to be tested on the tule lands of the San Joaquin. One of them has been used this season on Putah Creek, Solano county, in ordinary ground, and performed its work satisfactorily, but was compelled to stop since the roads became so bad they were unable to haul fuel for the engine. The new plow is the largest yet built, being 40-horse power. The machine is about 20 feet long by 8 feet wide, and from the ground to the top of the smoke-stack is 12 feet. The front wheels are 6 feet in diameter and 24 inches wide. The hind wheels are 6 feet in diameter by 30 inches wide. These wheels are made after Mr. Hyde's patent, and have rubber rolls, on top of which are secured blocks of wood so that when the weight of the plow is upon them they flatten down considerably and thereby give more surface on the ground than would be the case with a rigid tire in a wheel of equal dimensions. They are made of wrought iron, the spokes being of gas pipe, thus ensuring strength and lightness at the same time. The boiler is five feet in diameter and six feet in hight, containing 204 tubes. It has patent circulating tubes, consisting of one tube within another, which are also the invention of Mr. Hyde. This is the first application which has been made of this method and the results will be interesting.

The machine is to be sent to Venice Island on the San Joaquin river and will be employed in plowing tule land. The island belongs to J. Mora Moss, Mr. Nicholson and others. Mr. Hyde is certain that it will be able to perform its work as successfully on tule as on ordinary land. The soil at the place where it will be set at work has never been touched. The machine will cut a furrow 9 feet 4 inches in width. The one used on Putah creek was only 25-horse power and cut 7 feet wide. There are two engines on this one, each with a 10 inch cylinder and 12 inch stroke. It has eight plows 22 inches in diameter. On the other one there were only five plows, but they were 30 inches in diameter. These machines are made by the California Steam Plow Company, who operate with Mr. Hyde's patents. The whole thing is made up of a number of California inventions and is particularly applicable for our large ranches. Mr. Hyde will go with this plow to its destination and run it for awhile himself. He is deserving of great credit for the pertinacity he has shown in overcoming the difficulties in bringing the different parts of the plow to perfection, which is evident from a glance at the mechanism of the machine. We hope that it will prove successful in its work for it will undoubtedly be of great benefit to this State.

Abundant Rains.—We hear of abundant rains in all parts of California; rains that have fallen gently, doing all that rains can do to secure us abundant crops. Now if we get but the usual late spring rains of March and April though they may be but light, an enormous wheat crop will be almost as certain as the coming of the harvest.

CORRESPONDENCE.

Los Angeles County.

EDITORS PRESS:—That a journal like the RURAL is an indispensible desideratum to successful production is coming to be generally understood by the more intelligent producers on this coast, and that the agriculture, horticulture and mechanics of this Pacific slope are peculiar, so much so that any journal on rural topics published elsewhere is wholly inapplicable to most of the branches of the most useful occupations here, is also generally conceded.

We of the Pacific States and Territories may be without facilities for supplying some of the more common articles manufactured in the East as cheaply as the same articles produced there; but in time all of these little discrepancies will be more than counterbalanced. Where there is a will there is generally some way out of any ordinary difficulty, and one by one the old impossibles are melting away before persistent endeavors.

As an evidence of the foregoing proposition the present substantial structure in Los Angeles for turning our productions to account at home —the woolen mill—a well built house of brick and timber, 37x100 feet, two stories high, calculated for three sets of machinery, at present occupied by two The building was erected by O and W. C. Barnard, and the woolen machinery will be set up and the manufacture of cloth be superintended and partially executed by Mr Sacristy. The power is a forty-horse double turbine hydraulic engine, 12 inches in diameter, used with 60 feet fall or pressure. Water power furnished by the city—200 inches of water. The mill has a most desirable location within the city limits, but half a mile from the business part of town, on an elevated slope far enough above the available land to make the use of the water no injury to irrigating enterprise. The mill is expected to be ready to turn out cloth by March next.

In the corn regions of Los Angeles and San Buenaventura, an excellent corn sheller was observed, improvised from old threshers, by lengthening and enlarging the cylinder, also the pulley the same so as to lessen speed to one-half of that of a common thresher. These corn shellers are driven by six horses, and have shelled and cleaned eight hundred bushels of corn per day.

The endless variety and useful nature of the production of these valleys, watered by the Santa Clara, Los Angeles, San Gabriel and Santa Ana rivers, will, in the near future, bring this region into enviable note, as among the most desirable and prolific sections. There are openings for manufactures of many kinds of staples, as yet unoccupied hereabout, that will give profitable employment to hundreds of thousands as soon as the relations believe capital and labor can be harmonized, and that unwholesome and feverish condition, resulting from speculation be overcome.

It is said that it is an easy matter to write of a thousand enterprises that might be inaugurated with profit; and practical men are apt to sneer at the suggestions of mere scribblers, but when we say that there are profitable openings for enterprising manufacturers, it is from practical knowledge of the matter in hand; furthermore, we hold ourselves in readiness to demonstrate the practicability of any scheme we may advocate. There are three yet unoccupied fields for producers and manufacturers—in this Southern land—which it would not require any very elaborate argument to prove of a profitable nature, namely: The preparation of the unfermented juice of the grape and other fruits, and the bottling of the same.

Second; the raising and preparing for market the bald barley—making it into groats—pearl barley, barley meal or flour, an placing in convenient and neat packages for use or sale.

Third; the raising of the finest grades of combing wool bearing sheep, which produce the glistening silk fabrics so much in request for ladies wear; and the fibre or textile of which is of a value in market so far in advance of the common grades of wool, that it can be made immensely profitable to raise in small bands and in cultivated enclosures, upon the costly lands where it is getting unprofitable to grow the coarser wools.

There are other enterprises of a more uncertain nature, but which promise larger returns in shorter time, and therefore would be more attractive to that class of persons who are infected with the reckless spirit of the gaming mania, which permeates the social structure of to-day.

It is really painful to the humanitarian to see land that would produce the most luscious fruits, given to the production of the gross and unhealthy swine, thereby spreading disorders among their human devourers, where the same space might be used to beautify the country by orange or walnut groves, or for vineyards that would be loaded with the finest table or raisin grapes.

Here is a plain stretching from San Fernando rancho on the north, to the San Joaquin rancho on the south, say a distance of thirty miles in length by twenty in width, watered by living streams, or springs and with artesian water, obtainable or flowing in many places; a soil of every conceivable variety; climates to choose from; could anything be wanting out of which to construct an earthly elysium if the human elements could be harmonized?

There is a movement on foot to start an immense Sanitarium in some part of southern California, that shall accommodate at least ten thousand people, which shall have all the requisites of a hotel and hospital combined, and be so arranged as to admit of all classes of patients from the millionaire to the penniless outcast, and in such a way that neither will come in contact to annoy the other. The charges will be so regulated that they will not exceed in any case those of the same class of accommodations in any hotel or boarding-house. Treatment, medicines, baths and attendance included. Such an establishment, it is claimed can at all times be filled with paying visitors, guests or patients, as the case may be, all under the supervision of one head that shall determine in the more important cases the treatment required, but so liberal in the construction of his arrangements that nothing will be arbitrary, except the general rule that health is to be the desideratum to be obtained, even at the cost of the most idolized pet or theorem.

That Los Angeles contains the desirable elements for the successful inception of an establishment of the kind indicated above, cannot be doubted. F. M. S.

Los Coyotes Rancho, Los Angeles Co., Jan. 28th, 1873.

Berries and Fruits.

EDS. RURAL PRESS:—In your issue of February 1st, you describe the thimble and salmon berry, as the same fruit. I cannot classify and give botanical names, but will try to describe them in language sufficiently plain, to show that there is quite a difference between the two, as I used to know them on the northern Coast, extending from Del Norte county, Cal., to the Umpqua river in Oregon.

The thimble berry is very well described in your article mentioned above; I might add, however, that they grow on a thornless bush, some 4 or 5 feet high. The salmon-berry as I know it, at one year old, is not unlike the Lawton blackberry, except in color, which is dark yellow, and covered with spines or thorns as the blackberry, but shorter and not so much hooked. This shoot does not die down, but continues to grow from year to year, and in time, sheds its spines; but all the new growth that puts forth each year has them; but they in turn shed them off after a few year's growth.

I have seen them with bodies two or more inches through near the ground, and ten to twelve feet high. The fruit is somewhat larger than the largest specimens of the Lawton blackberry, and of a light salmon color, though occasionally a bush is found with purple berries. They are the first fruit to ripen, commencing the latter part of May and continuing throughout the month of June, which is quiet early for the cool, moist climate of the northern Coast.

The fruit is universally used in the raw state, fresh from the vines or bushes, or with cream and sugar. The fruit is not juicy as the blackberry and thimble-berry, and the seed is very large; hence, not fit for pies, etc. They have no fine flavor or aroma, but a plain acid taste. They do not thrive well in the open prairie, and I doubt whether they could withstand the dry atmosphere of the interior valleys. I have never seen them growing anywhere, except in the narrow belt of country facing the ocean.

Other Indigenous Fruits.

At the risk of tiring you and your readers, I will briefly notice some other fruits indigenous to the northern coast. The blue huckleberry grows on moist prairie land, and is the finest flavored of all the native berries of this region. Grows about two feet high, and ripens through July and August. Another species grows in the "Redwoods" eight to ten feet high; berries red or crimson, same shape as the blue; has pleasant acid taste, and fine for tarts; ripens through summer to autumn There are also two varieties of mountain huckleberries, growing on the western slope of the Coast Range; one a low bush, color red, quality and time of ripening same as above. The other is black and grows on bushes six to eight feet high; quality inferior to the others.

The strawberry is found quite plentiful on the sand ridges bordering the ocean, and on the warmest spots on the prairies. When ripe, it is very soft, rich and juicy; berries small, but improved in size by cultivation. Thimbleberry quite plentiful in certain localities, grows in rich land, on the borders of prairies; well described in the PRESS of February 1st. The blackberry is abundant. Any quantity can be gathered in close proximity to Crescent City.

Cultivated Fruits.

The apple does quite as well as in Oregon, especially late keepers. The writer has had as fine green and yellow Newton Pippins, grown in his orchard in Elk valley, and kept through the winter to April, as he has ever seen anywhere. Most varieties of pears do well; plums exceedingly well, but are sometimes killed in the embryo state by hail storms.

Peaches, nectarines, apricots, and grapes do not succeed. The winds and fogs from old mother ocean, make the climate too cool for them. The raspberry and currant are perfectly at home here, also the strawberry; best variety, British Queen. All the varieties of the gooseberry mildew, except Houghton's Seedling, which does well. I forgot to mention the cherry which does well here, but excessive dampness at the time of ripening, sometimes causes them to crack open.

Flowering Shrubs.

Before closing, I will mention some of the beautiful flowering shrubs. One is known there as Shrub Honeysuckle, growing on the prairies, in hight, four to six feet; and bearing a profusion of beautiful, sweet-scented flowers, and filling the air with their delicate perfume. In the dense forests of the foot-hills of the Coast range, are Rhododendrons and Laurels with large showy flowers, and many other trees and shrubs worthy of a place in every garden.

I may at some future time give some account of the climate, topography and resources of our northern coast counties. J. M.

St. Helena, Napa county, Feb. 5th, 1873.

Improved Stock.

EDS. RURAL PRESS:—We notice an article headed "Scallawag Stock" taken from the New York *Tribune*, which is in every particular so *appropos* that we cannot let it pass without a word of comment.

"The *Tribune* says it is no uncommon thing to hear a farmer declare that there is no profit in keeping fine cattle, that it will not pay him to purchase a good Short Horn bull at, say $500." You often hear the same expression made by farmers in this State, who have confined their experience to raising and handling "mustang" horses, Texas cattle and the common grade sheep.

They will assure you that this class of animals are the best, and when you ask them to show how this is the case, they will tell you that, they will stand more grazing, more hardships, live longer and look better, etc., than your fancy high-bred stock. In other words they are more like the Paddy's duck, that would dive deeper, stay under longer, and come out dryer, than any other bird. Hence, it must be the best! Best, in this connection means, most profitable. For certainly in the cultivation of the soil, in the raising of horses, cattle, sheep and wool, the great desideratum is money, or profit. Improvements, and getting ahead in the world is what we are all striving for.

The farmer who owns the best land in the best locality, will of course realize the largest returns for his labor, provided he economizes in applying all modern improvements, and the farmer who uses the most improved implements as compared with one who does not, will accomplish five times as much work and realize five times as much profit. Compare the old fashioned cast-iron and wooden plow, with the light symmetrical, highly polished steel plow used at the present time; compare the old scythe and snath, with the horse-power mowing machine of to-day, and the same with every other farming implement used by the intelligent modern farmer, and who would be found stupid enough to urge that the *old* was better than the new.

Yet some there are in every part of the country plodding along in the old rut of 50 years ago, who will tell you that these new notions and ways of doing things don't pay, and that their stock is easier kept and better than the thoroughbred. In New Mexico, to-day, they are keeping a sheep that only yields 1½ pounds of wool per head annually. We know this from personal observation. Now allowing this wool to be worth 30 cents per pound, and we have a gross income in wool of 45 cents to the sheep, take from this 25 cents, the cost of keeping and shearing, and we have left as a profit, 20 cents per head.

Take now the California grade sheep that will yield six pounds of wool annually, at thirty cents per pound, we should have a gross income of $1.80 per head, less expense of keeping and shearing, twenty-five cents, would leave $1.55 net per head; and if we value the former at one dollar per head, the California sheep is worth seven times as much, or $7 per head. We have many sheep in this State that yield as high as ten pounds per head annually, and this class of sheep are really worth twenty to one when compared with the New Mexican and Chihuahua sheep, and the difference is simply owing to improvements made through the introduction of thoroughbred stock from time to time by men who thought and have proven that the best are the most profitable.

To set it at a very moderate figure, the 6,000,000 grade sheep to-day in this State are worth $12,000,000, more money than they would be, had no improved blood been introduced; these same sheep produce annually in wool $3,600,000, more money than they otherwise would do.

Now this excess in the wool clip of one year alone, that is wholly due to importations of fine stock, will pay for the whole of them up to the present time, four times over, and yet we hear persons say that it don't pay to invest in high-priced thoroughbred stock of any kind. In cattle, sheep, hogs, and poultry it *does* pay. Take two-thirds of the grade ewes in this State, Nevada and Mexico, and a ram worth $250 will pay for himself the first year, and if he dies at the end of the year, will more than return his cost each year after, as long as the flock is kept. Mind you that we don't say every ram costing this money will so pay his owner, but the one worth this money will most certainly do it.

We once made this experiment in the East. with a small lot of Canadian ewes, which yielded only 5 lbs. per head; we made the cross with a number one thoroughbred Spanish merino ram, the increase yielded one year old, 8 lbs. per head, an increase of three lbs. of wool per head; this amount from 300 would give an increase of 900 lbs. of wool; this at 30 cents per lb. would give us $270 profit in wool alone, to say nothing of the extra value of the young ewes to keep for breeding purposes.

We only cite this instance to illustrate how rapidly improvements may be made and how readily they pay for themselves. A corresponding ratio holds good in every branch of stock raising and those engaged in, or contemplating engaging in the business, cannot give this subject too much investigation, unless they are already convinced that the best pay the best in the end. E. W. P.

Merino Rancho, Alameda Co.

Santa Barbara.

EDITORS RURAL PRESS:—The rain commenced to come slowly and gently down at 9 P.M., 22d of December, and it was showery for several days, until we had a little over four inches. Not a drop was lost, and it wet the thirsty earth deeper than the same amount of water has done for several years. All were pleased to see the rain, as it was the first since April last. The weather has been fine ever since the rain; very little wind — no heavy north wind in this vicinity to hurt anything yet. The soil is in very good condition for the plow, and farmers are making the most of it, and stock is thriving on the new grass.

In four days from the time the rain began, Mother Earth commenced to robe herself in green. Surely nothing can be more pleasing to the eye than to see the tender herbage springing from the ground that has been so long dry and brown. The weather, since the rain, has been as pleasant as one could wish for, at any season of the year. We think we can do a great deal here with a little rain, if rightfully distributed through the season. Some trees and vines are being planted, but not as many as should be. Some wait until February or March to do what should be done as soon as the ground is wet enough to remove and plant trees.

In less than one week after the rain commenced, I found tender white roots over two inches long on the trees I was removing. All these tender rootlets perish by handling the trees, and this is so much lost. Surely we cannot get our trees planted too soon after the soil is in condition to receive them. If the leaves are still on, I remove them, as it is a great loss of time to wait for them to fall. Many of our trees retain a good share of their leaves here until the buds begin to swell for the new crop.

In good seasons we can plant trees as late as March or April, and have them do well; but early-planting is the best and surest, any year. Improvements are being made, and the prospect now is indeed cheering. Never has the farmer been more hopeful. With seasonable rains we will gather a much larger harvest than ever before. O. N. C.

Carpentier, Jan. 28, 1873.

Questions for Discussion.

EDS. PRESS:—You have asked for a few questions which might profitably be discussed by agricultural societies. The following suggest themselves to us at this time, as useful and important:

1. What must be the size of a grain farm, to justify the purchase and use of all the modern improved implements?

2. How should the purely grazing lands of California be disposed of by the Government?

3. Should stockmen, who have only their mountain pasturage, aim to raise large improved stock, or adopt a small light breed?

4. What plants, in our climate will best survive the severe drouths, and afford the most nutriment to stock? In rich bottom lands? In poor flat lands? On rich slopes in the mountains? On poor ditto?

5. What is the best and cheapest fence in the long run, in form and material, all things considered?

6. How high will it pay to raise water by steam power, for garden and orchard? For meadow and pasture? For small grain? For roots?

7. Cannot all fruits be reduced to a dry cake, which will keep well, and resume its goodness on being moistened?

8. Cannot potatoes be prepared for market in the same way?

9. Suppose you wish to set up country gentleman, and have a thousand acres of arable land, and five thousand of wood and pasture. He must have considerable help, and cannot be very near to his neighbors. In such case is it best to hire transient help of single men, lodge them in the barn, and virtually live alone. Or is there not some plan on which a few permanent families may be made at home, enjoying themselves, and contributing to the social pleasure of the proprietor? Can it not be made more profitable in the end to all concerned?

10. Horses are useful for three purposes only. Heavy draught, light, quick draught, and riding. Which is the most profitable size and breed for these purposes, respectively? Or form? Or color?

You may submit all these to your readers, or select those you think best. There are many more that anxiously await discussion. Society is just beginning to open its eyes.

H. L. K.

Visalia, Jan. 31st, 1873.

Poultry Notes.

Practical Poultry Farming.

Editors Press:—There is no doubt that some thoroughbred fowls pay far better than the so called common or dunghill species. The principal objections to fancy fowls—urged by those who never tried them—are, that they require more care and are not as hardy as the common fowl; that, in the case of Brahmas and other Asiatics, they consume far more feed and sell for no more than the common kind in market, where every chicken counts one; and some have added when statiug their preference for dunghills, "besides they, the common, lay more eggs!"

How can those who have never made exact comparisons, feeding a number of Brahmas in one pen and the same number of barn-yard fowls in another, tell which will require the most food? It seems strange, but six full grown Brahmas, a cock and five hens, weighing over 40 pounds require less provender than a like number of ordinary fowls, which weigh less than 23 pounds. The chicks are far hardier and a larger number will reach maturity, and they sell for from 30 to 50 per cent. more in market. A Bramah will lay one-third more than a common hen, and she produces them in winter when eggs are worth twice the summer prices. These statements are facts proved by myself, and although they have been recorded again and again in poultry journals, I repeat my own experience and hope I may induce farmers to breed good poultry. The time is not far distant when fowls will be sold by the pound, as are turkeys now, and it will be a paying operation to improve ones stock. With a pure Brahma cock common hens will produce fowls which will yield, even now, in a country store, fully one-third better prices. My half breeds weigh six pounds when drawn, about the weight of two ordinary hens, and readily bring $13 when chickens are quoted at $9 to $10.

The principal objection to fancy fowls in California has been the very high price asked for anything having the name. A farmer might afford to pay a large figure for the first trio, but the sum asked for a cock when he desired to procure new blood consumed all the profits. This is being rapidly remedied, at least as far as Light Brahmas are concerned, and now exchanges can be made or new fowls purchased at reasonable prices. But let me warn farmers against buying cheap fowls as thoroughbreds unless they are judges. I frequently see very poorly marked half-breeds shipped by express as first-class fowls.

I have been shown large half-breeds, some even with unsightly vulture hocks, as pure Brahmas. Anyone can tell the difference who has seen a true picture of the fowl, which may be found in most good poultry books. "The Peoples' Practical Poultry Book," by Lewis, for sale at the Pacific Rural Press office is the best book, at a moderato price, that I have been able to find. But there is one characteristic distinguishing the pure Brahma which I have never seen in any not thoroughbred, the ear lobes are as long as the wattles, the comb is also very low and a perfect pea, in three ridges, the center one the highest. With wattles longer than ear lobes, the latter small, the fowl is not pure or is disqualified.

I have written at length as it makes much difference to a farmer whether he procure thoroughbred or mongrel fowls. Do not allow more than ten hens to ono cock; if mated with over twelve hens one year he will be useless for more than four or five the next. I speak of Brahmas and others except the Leghorn, when fourteen may be allowed. This is the experience of poultry fanciers who have carefully studied the matter and acquired their knowledge by years of attention to breeding fowls.

What are the best breeds for a farmer? Without giving the points of various fowls, for which I have not limit in an article like this, I answer unhesitatingly the Light Brahma and the White Leghorn. No other Asiatic fowl is equal to the former, except the Dark Brahmas, which cost far more and are so scarce outside of the hands of fancy breeders, as to make it difficult and expensive to change cocks or procure fresh ones. The Cochins cannot compare with the Brahmas, and they are too persistent and too frequent sitters.

Those who prefer to sell or use many eggs will perhaps find the Leghorns best suited to them. They mature early, the pullets commencing to lay when four and a half or five months old; they are hardy, stand our warm climate better than any other breed, and are persistent layers, especially in winter time, when eggs are worth the highest price; they never desire to sit and are less liable to colds and croup than other non-sitters. Mr. Seamans says: "I always recommend them as the most profitable egg producing fowl in existence. I have bred them seven years and like them better every year."

I have been induced to cross tho Leghorn and Light Brahma by the good results reported by those who have tried it, one of whom says in the *Poultry World*, "The result was I had very large chickens and the pullets I kept, laid the whole winter through, and did not want to set at all. I think it a very nice cross for all purposes. They missed laying hardly a day all winter."

I would not have the farmer discard all his common fowls at once, but procure a few Brahmas or Leghorns, or this cross, or buy a dozen of the eggs. As the young mature he can sell or kill off his common roosters, and each year breed better and more profitable fowls. Let him be assured that it will pay, and pay well.

M. Eyre, Jr.

Napa, Jan. 30th, 1873.

Different Breeds of Fowls.

The amount of food consumed by different breeds of fowls, and the relative quantity of eggs which they lay has been but little experimented on. Still there is no doubt but that there is as much difference in poultry in this respect as the farm animals. *Field and Factory* contains an article on poultry raising, in which we find the results of feeding several different breeds, the experiment having been instituted this year:

Ten pullets each, of five breeds, each within a week of being six months old, were placed in yards forty feet square, with comfortable houses. For the next six months an account was kept of their food, and eggs produced, with the following results:

The Dark Brahmas ate 369½ quarts of corn oats and wheat screenings, laid 605 eggs, and weighed 70 pounds; feed cost $5.77; eggs sold for $10.68; profit, $4.31. The Buff Cochins ate 406 quarts, laid 591 eggs, and weighad 73 pounds; feed, $6.34; eggs, $9.35; profit, $3.51. The Gray Dorkins ate 309 quarts, laid 424 eggs, and weighed 59½ pounds; feed, $4.87; eggs, $8.73; profit, $3.86. The Houdans ate 214 quarts, laid 783 eggs, and weighed 45¼ pounds; feed, $3.35; eggs, $13.05; profit, $9.70. The Leghorns ate 231½ quarts, laid 807 eggs, and weighed 36½ pounds; feed, $3.62; eggs, $13.55; profit, $9.83.

The reader can easily figure for himself the relative value of the different breeds in this case from the results obtained.

Can Hens be Too Fat to Lay Well?—A correspondent writes to the *Rural Home* as follows: Old folks used to say:—If your hens are neglected and run down poor, then you may get them too fat to lay, but if you raise a lot of pullets and feed them all they want to eat, of corn, buckwheat, ashes, burned bone, etc., lime in the winter, and keep doing so as long as you want them to lay, then you will find out as well as I did that you cannot have them too fat to lay.

I am about sixty-two years old, and have experimented with hens more or less for twenty-five-years. I raise a lot of pullets every summer for layers, and dispose of the older ones. I make a net profit on every hen of about $1.50, and not counting the manure anything; get 20 cents per dozen for eggs; on an average 20 to 25 cents for chickens, when they are two months old. I could give you a list of particulars, of debtor and creditor, for a number of years, but I don't think it necessary. I will say, however, that I have had from twenty-four hens, in one year, 257 dozen eggs, and raised 70 chickens. That year I had a net profit of a little over $2 per hen, not reckoning the manure.

My hens are a mixture or cross of different breeds—Hamburgs, Polands and Pheasants—I have no blooded hens of any kind.

Chickens' Tails Turning One Side.—A breeder writes to the *Rural Home* that "he finds among his White Leghorn chickens, the stag's tails all turn on one side, although he bought the parents for first class birds, and of dealers deemed honest." This may all be; the breeders you bought of may not have the same difficulty—their fowls undoubtedly were pure. Wry tails are caused by crooked backs or spines. When one fowl in a yard has it, it may be the result of accidental injury. We had last year two or three stags in our flock that had wry tails, which were fatted and killed; the other stags (some three or four) were as perfect birds as one could wish to look upon.

Miscellaneous.

Contortion of Rocks.

The phenomenon of a layer of limestone, slate, coal or other rock, bent even to a right angle, without utter fracture, is one which a sudden force could not produce, if the mass were solid; and the hypothesis that in such cases the strata were soft and plastic at the time of contortion, does not explain the circumstances, and is for some kinds of rock *a priori* difficult or impossible to admit. When it is once assumed, however, that the forces lifting and binding rocks, were and are mostly very slow and gradual in their action, the difficulty vanishes; for it is now demonstrable that solid and crystalline rocks can be permanently changed in form by such pressure.

Sir James Hall, by an experiment now familiar to geological students, showed upon a pile of cloth, representing a series of sedimentary rocks, the effect of horizontal, lateral pressure in causing curves and folds; but Mr. L. C. Miall, Curator to the Leeds Philosophical Society, has recently applied a similar apparatus to the actual flexure of thin layers of stone, and has found that they can, not only be bent within the limits of elasticity, but permanently "set" without fracture.

It is mentioned as a curious fact that a certain kind of stone found in Missouri, when subjected to heavy pressure, shows quite a degree of elasticity, so that it will contract or expand as the pressure is applied or removed. The statement does not tell us whether this experiment was tried with the stone set up on its edge, or whether it was placed with its plane horizontally as it came from the quarry. But the same fact has been noticed before, indeed, for ought we know forever. Certain qualities of stone, the sandstone, slate and soapstone, in which the body particles are atomized, are peculiarly sensitive to contraction and expansion, from pressure and other agencies, but, not to anything like the extent in a vertical as in a horizontal direction, when they are subjected to test in the same relative position which they occupied in their natural bed. Even granite and trap, and conglomerates generally, are to some extent of the same nature. This should be borne in mind, and when stone is used for construction, especially when put into important buildings or strong abutments, it should be laid just as it lay in the earth, and thus obviate the greatest tendency toward fracture or displacement by the inequalities following the contraction of one more than another, or the expansion or contraction of the whole mass.—*Ex.*

New Process of Wood-Engraving.—A new process of wood-engraving is called the "planotype." The design to be engraved is transferred to a block of lime-tree wood, which is then placed in a machine having somewhat the appearance of a carving-machine, the shape of which varies considerably according to the nature of the work, the graver being kept red hot by a gas-jet. By means of this appliance the design is gradually burnt into the wood. Figures or letters of reference are impressed by means of punches. The whole design having been burnt into the wood, a cast in type metal is taken direct from the block; and without any further preparation the cast may be used for printing from, like an ordinary stereotype plate. It is said that the wood does not suffer in the slightest degree from the heat of the molten metal, and that the finest details are faithfully reproduced. The process is carried out on a large scale, and is found to give most satisfactory results.

The Bessemer Stationary Ship Saloon seems to have encount eredan unexpected rival in a floating cabin devised by M. Alexandrovski, the inventor of the "under-water" vessel." The construction is very much the same as that of the Bessemer, but the cabin, instead of being attached to a pivot, literally floats in a kind of tank placed amidships between the engines. The invention has been tested by the Grand Duke Constantine in his capacity as head of the naval department, with a perfectly satisfactory result; all efforts to shake the cabin proving utterly unsuccessful, and the pitching, as well as the rolling motion of the vessel being completely counteracted. M. Alexandrovski has gone to England in order to patent his invention, intending to visit France also with the same object. It is expected that he will prove a formidable rival to Bessemer in this direction.

Astronomical Prize Award.—At the late meeting of the French Academy of Science, the Astronomical prize was awarded to Mr. Huggins, in consideration of some very important discoveries made by him through the aid of the spectroscope, with regard to the composition of planets, stars, nebulæ and comets. He has clearly shown that the constituents of all the celestial bodies are the same or similar to those of the earth. He has also shown that while the light emitted by the nucleus of comets is inherent within itself, that exhibited by the nebulons surrounding atmosphere and "tail" is merely reflected sunlight. A uniformity in chemical composition is thereby shown to exist throughout all the bodies of space.

How far Can We See.

Herschell was of the opinion that, with the telescope he used in those researches in the heavens which immortalized his name in the annals of Science, he could penetrate 497 times farther than Sirius, assumed to be at least so far distant that the sun is near at hand in comparison. While exploring with that instrument, 116,000 stars flitted by the object glass in one quarter of an hour, and that subtended an angle of only 15°. So all the worlds are moving rapidly in space. Reckoning from the limited zone thus inspected, the whole celestial region could be examined by giving time enough to the enterprise; and judging from a few sections within the scope of assisted vision, more than five billions of fixed stars might be reasonably supposed to be recognizable, and could be seen with modern improved instruments. But more are beyond, vastly beyond, and we are hoping and expecting that, when Mr. Clark, the self-made astronomer of Cambridge, Mass., and the most progressive telescope manufacturer now known to scientists, has completed his great work, far more amazing discoveries will be made in the firmament. Surely, the mechanism of the heavens demonstrates the existence of an Intelligent First Cause, since such magnificent displays of unnumbered worlds, regulated by laws which secure order in the universe, could not have originated themselves. God surely reigns and directs.—*Scientific American.*

The Ancient "Atlantis"—What it Included.—It is well known to readers of history that no less a person than Plato sent down to posterity a tradition of his day, that a great continent which occupied the place or area now covered by the Atlantic ocean, suddenly sank out of sight, into the unknown depths. He further says that it was an island called Atlantis; on it were kingdoms and organized governments, wealth, arts and civilization—all instantly lost to sight. It is now the opinion of some of the most learned geologists, who have given attention to this special subject, that the American continent appeared when the Atlantis waters rushed into the enormous cavity or depression on the earth's surface now filled by salt water. The Rocky Mountains, according to this theory, were then the rough bottom of an ocean, which rose with marine plants, shells, and other objects of an aquatic origin, that are abundantly strewn there, and in fact all over North and South America. Remnants of Atlantis, the submerged continent, are believed by some scientists, who have made the matter one of particular geological investigation, to be recognized in the Adirondacks, also in the mountain ranges in some parts of Maine.

Scientific Experiments with Iron.—M. Caron has succeeded in putting iron into the condition called "burnt," by heating it in the open fire, in nitrogen gas, and in hydrogen gas; whence he concludes that this condition is not due to the absorption of any special gas, but to a modification in its molecular condition, caused by the heat. Caron also tested samples of iron at temperatures from 0 deg. to 18 deg., and concludes that iron does not become brittle by cold. He says, "Whenever, by a strain, a bar of iron breaks with a crystalline fracture, it is certain that this structure pre-existed; it may have originated in poor workmanship, but is not due either to the long use, nor to the cold which it has undergone."

American Shipbuilding. — The passage in the President's message, relating to the rise of the price of labor in Europe, and the consequent probability of a revival of American shipbuilding, seems to have been well-founded in fact; for the proprietors of a Chester, (Pa.) yard have actually underbidden the shipbuilders of the Clyde in a proposal of the Italo-American steamship company to construct four iron steamers for them. There is good reason for believing that the offer of the Chester company will be accepted, and, if so, a powerful impetus will be given to the American maritime interests.

The Pneumatic Tube to be Tested.—Congress, at its last session, appropriated $15,000 as a fund for testing the practicability of the pneumatic tube for transmitting small packages. The experimental tube is to be put into operation between the Capitol at Washington and the Government printing office. Mr. Albert Brisbane, the inventor, claims that he can transmit packages from New York to San Francisco by this method. The inside diameter of the tube laid at Washington is thirty-one inches, and that of the sphere, which is to be propelled through it by atmospheric pressure, is thirty inches.

Scientific Prize Awards. — The French Academy of Sciences has awarded its prize in botany for 1872, to Professor Notaris, director of the Botanical Gardens of Genoa, for his remarkable studies on mosses. M. Duquesnel, a French druggist, was also rewarded for his useful researches on the active principle of aconite. In zoology, M. Schœitte, a professor at the University of Copenhagen, received a prize for his studies on the metamorphoses of coleoptra, etc., etc.

Farmers in Council.

San Jose Farmers' Club.

Club met Sat. Feb. 1. President Casey presiding.

Mr. Hobson, from the Market Committee, said the Farmers' Market was meeting all expectations; much produce had been brought in, and the salea were very satisfactory.

Mr. Dubois said that he did not believe that the farmers generally understood the plan on which the market was conducted, and thought they should know exactly the terms on which produce would he received and sold.

The President announced that the only regulation was that every persou was entitled to bring produce to the market, for the aelling of which the agent charges from two and a half to ten per cent. commission, according to amount.

Mr. Hobson said that the market was yet in its infancy, and no scale of prices for articles had as yet been arranged, hut the matter would be fixed in a satisfactory manner.

Under the order for selecting a question for the next meeting, the current question was postponed until that time.

On motion of Mr. Hatch, the question as to whether there was anything immoral in farmers raising grapes for wine purposes, was declared to be the question for preseut debate.

The President called up his motion to change the Constitution, of which notice was given one month ago.

On motion of Mr. Hobson, the constitution of the Club was altered so as to elect officers on the first day of May, in accordance with the request of the Department of Agriculture.

The Wine Question.

On the call for a fifteen minutes speech, Mr. Hatch said he supposed the amount of grapes raised iu this valley exceeded the demaud for any other purpose than that of wine making. The raisin question was not entitled to much consideration, as the majority of tbis crop was not the peculiar quality required for raisins. Therefore the farmers waut to settle the question as to whether there is anything immoral in selling their grape crop to wine makers. He cited the parallel case of tobacco in New England, which had been decided by most of the farmers in favor of its production. The grape question here is of as much importance as the tobacco question in New England. Wine has its legitimate usea for communion purposes, etc. He did not think the producer responsible for its abuses. He was a teacher of morality, and was anxious to get all the light he could. It was the recognition of his responsibility that caused him to call up this question. If it is right he wanted to advocate it, if it is wrong he wanted to shun it.

Mr. Dubois said no one of the Club would oppose the cultivation of the poppy. Opium is a deadly poison, yet as a medicine it is invaluable. If abused it is worse than alcoholic liquors. Are the producers responsible for its abuse? Alcoholic liquors are deadly when abused; can the producer of the grape or grain be held responsible for this? A razor is a deadly instrument, and many suicides have been committed through its agency. Is the manufacturer responsible for this? I believe that mankind should enjoy the full liberty compatible with morality; the temperate use of wines and light liquors is not immoral. There is no temperance in total abstinence, it is carrying the matter to excess, it is intemperance. The grape is the staple of this country, which shows that Providence intended that it should be raised. He called attention to the fact that parties were no more excusable for raising peaches or grain from which liquor can be made, than they are for raising grapes from which wine is made. Good morals must be taught, not forced on a people. There are worse immoralities than drunkenness, but ministers of the Gospel do not try force; they try to influence by precept and example; so it should be in regard to temperance.

Question of Finance.

Mr. Hobson said it was both a question of finance and morality, and both should go together; that political economy should teach the raising of such products as would tend to the whole welfare of the nation. Pure wine, or the juice of the grape, does not tend to drunkenness, but what is called wine now, does tend to drunkenness. Suppose a farmer plants his grapes, makes his wine and uses it. Experience in this State shows that the habitual use of wine makes drunkards. Habit will grow into excess. Wine is something the system does not require, and as it is used for the unnatural effect it has, and it is always found that in order to produce the effect, the amount must be gradually increased until it ends in drunkennesa. Some men will do right from inclination, others must be forced to the right path. He referred to the conscientious slave holder, and the abolition law which was indorsed by the mass of the people. If he sold his grapes to a distiller, in point of morality he might as well distil it himself, and if he knew the liquor made from his grapes would be drank he might as well drink it himself. If we knew or could believe that the wine we make would be used for a good purpose, it would not be immoral to produce it, but if we have any doubts on that subject the morality is uncertain, and we should give morality the benefit of the doubt.

Mr. Hatch asked Mr. Hobson what he would do if he lived in Illinois, where corn was so extensively used in making liquors—if he would raise corn.

The Gun Business.

Mr. Hobson said that if he was a gunsmith he would not sell a gun to a man whom he knew would kill a brother man, or if he knew that part of his corn would be distilled into liquor, and that liquor should make a man drunk, and that man should go home and kill his wife, he would never raise another grain of corn.

Mr. Haskell said that Mr. Hobson was generally more explicit in his answers. For himself he was rather conservative, and unless he could see some benefit to accrue he did not propose to throw himself into a very large gap. When I sell my grain I consider my responsibility at an end. I cannot know that that grain will be manufactured into liquor, and I am not bound by any moral principles to abstain from raising grain.

President Casey said he thought wine in itself was a great evil. The grape of itself is nutritious, but before you can obtain wine the grape must be rotted and fermented, and the particles left; no man would touch if it was not for the alcohol they contained. There is as much alcohol in two glasses of wine as in one of rum, gin or brandy. Alcohol is the principle which is destroying the nation. There is no other principle which has the effect of alcohol; no other medicine, however patent, which will make a man so wild as to maltreat his family. No fruit of the earth raised as a farm product is hurtful until its nutritious elementaare destroyed. England tried to reduce drunkenness by the introductiou of beer; she increased it instead. France, the great wine drinking nation, is the greatest nation of drunkenness in the world.

Denial of the Scriptures.

Wine is only sugar coated alcohol. He denied that Christ made wine at Cana, or used wine at the "Last Supper." The speaker said he had looked at the matter carefully, and he did not think any moral man could conscientiously sell his products to be made into liquor. He had refused three cents per pound advauce on his grape crop for this reason.

Mr. Berglen said he did not believe Christ ever drank wine; he was too much of a man. To eat, drink and be merry is praise of the Deity; but to eat or drink to excess is an evil. His plan was to teach people the evils of intemperance; not try to force them into temperance. He thought every one should keep on hand light beer; it would take the place of tea and coffee, and would soon displace stronger drinks.

Mr. Hatch contended that fermentation was not a state of decay, but a natural process, the same as other processes of nature. He said that rum, gin or brandy containing 50 per cent. of alcohol was produced by artificial processes, while fermentation was a purely natural process. He disputed the assertion that France was the greatest nation of drunkards in Europe. He supposed none of the members would sell their products to distillers, but the question was would it be proper to sell grain and fruits in the general market with a possibility that they or a portion of them might be used for that purpose.

Messrs. Casey, Berglen and others followed with argumenta both pro and con.—*Mercury.*

Contra Costa Farmers' Club.

Regular Meeting. President N. Jones in the Chair.

The President stated that the subject for discussion was "The feasibility of building a Narrow Gauge Railroad through the San Ramon Valley;" but on account of the unfavorable condition of the weather there was not a full attendance of parties interested; on that account he thought it best to adjourn to a more favorable time.

Mr. Hough, of the dairy ranch, called on the President for a speech on the subject for discussion.

The President responded with an argument in favor of Oakland for the terminus.

Mr. Hough made some remarks in favor of the same point. He stated upon the authority of an eminent engineer that the road could be be built from Walnut Creek to Oakland, within the limit of $18,000 per mile, including the tunnel, and the road stocked.

He stated further that the discovery of coal on San Pablo Creek was of such a character that there was but little doubt that a tunnel railroad would be built for those mines alone, if there was no other inducement.

Some remarks were made in favor of the Straits of Carquinez, for the terminus; that the cost would not exceed $10,000 per mile, stocked; that it would be an easy grade; that freights would be lower than on the heavy grade to Oakland.

Mr. Larkey moved that when we adjourn, we adjourn to meet on Saturday, the 15th of February next to 10 o'clock, A. M. Carried.

Mr. Hough moved that the Secretary pro tem. be instructed to correspond with the City Council of Oakland, and with each of the farmer's Clubs of this county, to induce a delegation from each to attend our next meeting, which will be a special meeting for further consideration and discussion of the project of a Narrow Gauge Railroad through this valley. Carried.

On motion the Secretary was instructed to furnish a copy of the minutes of this meeting to the *Contra Costa Gazette* for publication.

A member of the Club remarked that he would like to hear an expression of the sentiment of the Club as to whether the farmers were in favor of building the railroad themselves or offering inducements to capitalists to build it. Informally those present were called upon to indicate the amount of stock each would take in the road, when it was ascertained by the Secretary that it would aggregate the sum of $42,200.

The President called the attention of the Club to the fact that our last Legislature had failed to comply with the law to redistrict the State, to equalize representation in the Legislature; that in consequence the farmer's interest was liable to suffer. He recommended the subject for discussion at some future meeting. He thought the farmers throughout the State should unite and demand their rights.

On motion the Club adjourned to meet on Saturday, February 15, 1873 at 10 o'clock A. M.

Walnut Creek, February 1, 1873.

—*Gazette.*

Sutter County Farmers' Club.

Report of the Committee on the Proposition to Incorporate

Gentlemen of the Club:—Your Committee, appointed January 18th, 1873, to consider the propriety of forming a joint stock organization under the Incorporation Laws of the State of California for the mutual benefit and protection of the farmers of Sutter county, have had the subject matter under careful consideration and do report briefly as follows:

First—That the farming interest of this county is by far the largest interest represented in the county, both in numbers and in aggregate wealth. That in intelligence, morality and business capacity it is inferior to none other; that the almost necessary isolation of the individual members of this great interest has heretofore rendered their concentrated thought and action very difficult, but not impossible, and that all the difficulties of this necessary isolation of employment can be overcome by an honest, earnest and persistent endeavor to cultivate that mutual regard, courtesy and forbearance that we see manifested among the members of all the great controlling interests of the world.

Second—That in all other countries of the world, and heretofore even in this country, the true tillers of the soil and the artisans have produced all the material wealth, whilst a class infinitely inferior in numbers, in general morality and all that constitutes true manhood, has arrogated for itself the right to do the thinking for the masses of our race, but as a last resort the Peasant, the Yeoman, the Artisan, the Farmer, have been called upon to stand the brunt for the misdeeds of these self-constituted thinkers and rulers of mankind.

Third—That for many years the artisans have, in their various capacities, organized for their mutual protection, by which they have largely increased the compensation they receive from their labor, their social standing, and in many instances of late, have become by their joint efforts large manufacturers in their various departments. The various professions have all societies or organizations by which they obtain large rewards for comparatively small service rendered or labor performed, whilst the agricultural interest of the world, the great sun around which all other human interests revolve, and from which they all receive their support, still remains, for want of organization and concert of thought and action, the great Goose to be plucked by all who wish a soft bed on which to lie. But now we hear on all hands hissea of discontent; this great interest is beginning to awake from, and throw off the lethargy that has held it in thraldrom for all past ages, and will in the near future assume the position to which its importance so justly entitles it.

Thorough organization and mutual confidence will enable you to concentrate the entire products of your individual labors at certain points, in such quantities that purchasers will be enabled, without labor to themselves or the employment of agents, to whom they pay large commissions, which you ultimately pay, to procure at once and in such quantities as they may require, any of the products of your county. And to accomplish this, you can place yourselves, through your Directors, in close communication with all the great business centers of the world; and parties having such supplies as you may need, will come directly to you, through this same source. By selling directly to the consumer or manufacturer and buying your supplies directly from the producer or importer, you will be enabled to save a sum annually, perhaps equal to one-fourth of your entire products, when compared to your present mode of transacting your business. If money should be needed to enable you to produce, handle and hold for prices to suit you, the products of your several farms, it can be had through this same channel on like advantageous terms.

Farmers, learn wisdom from the coral insect, of which each individual of itself is so weak as to be prostrated by the slightest force, but by combined effort is enabled to resist the joint navies of the world. Then let the farmers organize, combine, not for the purpose of aggression, not to oppress or aggrandize yourselves at the expense of any other honorable occupation or vocation, but to elevate yourselves to that position to which the great benefits you confer on the world and humanity so justly entitle you.

This great labor cannot be performed in a day. Wishing, hoping, will accomplish nothing; denouncing will produce no effect; but go to work as you would against a great fire that was about to consume you; back-fire, fight monopoly with monopoly, and you have the preponderance of numbers, of physical and mental energy, of the material wealth of the world in your favor, as against any other human interest or vocation.

There is a law on our statute books, which, by availing yourselves of its privilegea and provisions will enable you to do all this; and your Committee do unanimously recommend that you incorporate under the name of the "Farmers' Co-öperative Union, of Sutter county;" the object to be, to promote the agricultural and general welfare of the farmers of Sutter county; with power to buy, hold, sell and convey real estate, to build, buy and own, lease, rent or sell warehouses or such other buildings as may be needed for the purposes or uses of this Union; to buy, hold, sell or convey to a market all farm products; to procure, buy, sell or distribute among the stockholders of this Union or other persons, any or all goods wares or merchandise; to buy, import and sell any or all live stock for propagating or other purposes; to acquire, keep, borrow or loan money; to build, charter, buy, sell and navigate all ships, steamboats, barges and other water craft now in use or that may hereafter be used either in foreign or domestic commerce; and to do and perform any or all acts necessary and proper to carry out the objects of this Union.

The principal place of business to be at Yuba City, Sutter county, with such subordinate places as the Directors may from time to time designate.

This Union to continue in existence for fifty years.

The business of this Union to be conducted by seven (7,) Directors, to hold their office for one year.

The capital stock shall be $50,000, to be divided into 1,000 shares of $50 each, said stock to be owned only by farmers, and to be transferred on the books of the Union only by consent of the Directors.

The law requires that at least one-fifth of the capital stock shall be subscribed, and that at least ten per cent. of such fifth be actually paid into the hands of the Treasurer of the Union before the articles of incorporation can be filed in the office of the Secretary of State.

And now gentlemen of the Club, your Committee would respectfully suggest that you select seven farmers, in whom you have confidence, who shall proceed to open books for the subscription of stock, and who shall further proceed to perfect articles of incorporation in accordance with the law, who shall be named in said articles, and who shall hold their office and conduct the business of the Union for the first year. S. R. Chandler, Chairman.

Yuba City, Sutter Co., Cal., Feb. 1, 1873.

Sonoma County Farmers' Club.

Auspicious Opening of Agricultural Hall.

Club met on Saturday, Feb. 1st, for the first time in their new hall, in Morrow & Son's building, on Fourth street. President Holmes presiding. Vice-Presidents Whitaker and Davis and Secretary Middleton were in their seats and a large number of members present.

The Secretary read a very interesting and able letter from the Hon. John Bidwell, President of the State Farmers' Union. Some other business of an unimportant character was transacted, after which the speaker for the day, Hon. William H. Rhodes, of San Francisco, was introduced by the President. A large audience had in the mean time filled the hall.

Mr. Rhodes was received with applause. He spoke for an hour and a half. The address contained valuable statistical information, the style was original and cultivated, and the delivery worthy of the reputation of the speaker as an elocutionist. Now and then his vivid fancy would get away with him and he never failed to elicit the hearty applause of his auditors. We do not give a summary of the address for the reason that we intend publishing it in full next week. A number of ladies honored the Club by their attendance. They were late coming, and their presence was magnetic; it was felt by the audience, and no doubt by the speaker; we thought that we detected in his voice a deeper pathos and that he at once grew more eloquent.

In this connection it may not be ont of place to mention the increasing interest felt in the Club orgauization. Last summer a few farmers with many misgivings originated the movement which struggled into life through discouragements and prophecies of failure. It is true that but little has as yet been accomplished, but what has been done, bears favorable compariaon with other organizations for a like purpose in other parts of the State. A fine hall has been secured for regular meetings. Men who have common interests have been brought together. The interchange of ideas and experience by those who have for years resided in the same county without even an acquaintance, has been most valuable. The Club

has also been in communication with men distinguished in the agricultural history of the State, giving to the members the result of their extended experience not otherwise attainable Rain ganges and a collection of seeds, among which are imported Silesian beet seed, potatoes, oats, tobacco, and several new varieties of peas and beans, and are now on hand for distribution. For these the Club are indebted to Senator Casserly, who has also forwarded a number of books for the library. An effort will be made by the Club in connection with the citizens of this city to establish a Public Library. Altogether, we think the members of the Club have reason to be pleased with its progress.—*Democrat.*

Yuba County Farmers' Club.

Club met at 2 P. M. President Bockius in the chair. The Committee appointed at last meeting, to investigate the subject of incorporation, reported through their Chairman, Mr. Chandler, that they have had the subject under consideration since last meeting, and after a careful and thorough investigation, were unanimous in the conclusion that to incorporate and proceed at once to the transaction of business, would be of great benefit to the farming interest. That they have embodied their conclusion in a written report, setting forth their reason for such conclusions, the name of the incorporation, its objects, the amount of capital stock, how divided, and such other details as in their judgment could be of use to the Club. That unfortunately such report was not present, but as their action in committee was unanimous, moved that the report be received, incorporated into the minutes of this meeting and published in the *Sutter Banner*. Carried. On motion of Mr. McIlmoil the Secretary was requested to procure fifty or one hundred copies of said report or a like number of copies of the *Sutter Banner* containing the same, and send to parties not taking the *Banner*. Owiug to the inclemency of the weather, and few in attendance, it was decided to postpone further action at present, and thoroughly canvas the subject during the coming two weeks, and at our next meeting take final action thereon. As the club was rapidly increasing in members and interest, on motion of Mr. Starr, the hour of meeting was changed from 2 to 1 P. M. Meeting adjourned for two weeks, or until Saturday, February 15th.

Yuba City February 1st, 1873.

—*Banner.*

Agricultural Notes.

ALAMEDA.

Transcript, Feb. 8: Importation of Turkeys. There is about being introduced into Alameda county one of the gamest as well as most palatable of American wild fowl. These are in possession of the fowler, Charley Kaediug, gunsmith, on Washiugton street, having been forwarded to him from the Illinois prairies by Judge J. D. Catou, for the purpose of propagating the species on this coast. The *Examiner* says: "They will be turned loose in the woods of Tulare, Alameda and Marin counties, and it is hoped they may escape the shots of pot-hunters until they have had time to breed sufficiently to render their extermination improbable. It is thought that but a few seasons will be required to effect this. They are much larger than the tame turkey, weighing nearly twenty-five pounds on an average. One of them, a fine gobbler, now weighs thirty pounds, and of course he has lost weight since he was caught. They were all trapped out of the same flock. Judge Caton, the gentleman who took the trouble to ship them out here, and who has at his country residence, near Ottawa, a large park stocked with almost every variety of game to be found in the United States, has bred large numbers of wild turkeys. He states that the cross between the wild and tame turkey produces a finer bird than either parent."

Farmers Jubilant. — The growers of the golden cereal in many places iu the county are jubilant over the late rains. We trust their fullest expectations may be realized, aud that before next harvest a narrow gauge railroad will pass through the rich valleys of Contra Costa and Alameda counties, to land grain here for shipment.

Journal, Feb. 8: Game Abundant.—Game was never so abundant hereabouts as at the present time. All along the line to Livermore, Bantas and the San Joaquin generally, duck and wild fowl of nearly every description are as thick as quail in Mendocino. A few days since, Geo. Taylor, Al. Walker and Wiliam McCarthy, of this city, went off for a few days hunting and returned each laden to the scuppers with teal and canvas-back ducks, huge brant, etc. They and their friends have been living on game meat ever since, and the demand for butchers' meat has fallen off in consequence.

CALAVERAS COUNTY.

Chronicle, Feb. 8: Wool. — Our mild and pleasant winter, and the unusually forward state of grass and grain crops, not only give promise of an abundant harvest next summer, but render it nearly certain that the wool product this year will be unusually large. Our wool growers are in excellent spirits at the flattering prospects of the Spring clip. Sheep have not suffered for the want of good feed, and the weather has been very favorable. As a consequence, the staple will be long and strong, and command a good price. The wool clip of 1872 is estimated at 25,000,000 pounds, and it may reasonably be expected that it will be considerably larger this year — say 28,000,000, of which Sonoma county will produce 450,000 pounds.

Grain Sowed. — In a private letter we recently received from Mr. Allen Taylor, who resides near Angels, he incidentally mentions the fact that he has sown forty-five acres to grain this season. He has put in wheat, barley and oats. Twenty acres of the land were summer-fallowed. The area cultivated by Mr. Taylor is not large, but he is a very successful farmer, raising good crops, whether the season is generally regarded as favorable or not. He accomplishes this by summer-fallowiug one-half of his land each year, plowing deep and seeding early. We have always maintained that with proper cultivation fair crops can be grown in the foothills every year without reference to the season, and Mr. Taylor annually proves the truth of the theory. He is one of the few farmers in this county who don't trust to Providence for "late rains in the Spring" to insure them reward for their labor.

CONTRA COSTA.

Gazette, Feb. 8: Rain.—The total measure of rain-fall from Thursday morning of last week, to Wednesday of this week, since which day none has fallen, is but a small fraction over an inch, though it would seem to have been more; and makes the total for the season but 8:30. This comparatively small measure has been all the ground would take, with its reserved store from the heavy charge of last season; and with the usual light rains up to the middle of May, there is no prospect that our crops will suffer from drought. Excessively hot weather and north winds may sear them in the spring and early summer; and that is the greatest peril we now have to apprehend.

EL DORADO.

Republican, Feb. 6: On Saturday, Feb. 1st, we were visited with an unusual snow-storm. There was a heavy, continuous fall for about eight hours, and the boys improved the opportunity for a snow-ball, and for several hours it was unsafe for a Chinaman to venture out, while many of us "Melican" men were the recipients of an occasional shot.

FRESNO.

Expositor, Feb. 5th: Hail.—A heavy hail-storm prevailed in this neighborhood last Sunday afternoon. It lasted about fifteen minutes, and the ground was covered with hail stones to the depth of about an inch. The stones were about the size of a marrowfat pea.

Bad on the Lambs.—The storm which prevailed during the past few days has been of considerable injury in one respect to the wool-growers of our county. The rain was colder than ordinarily, and in consequence a large number of young lambs, this "lambing" season, were chilled to death. There is the gratifying assurance, however, the rains insure a good grass crop.

Building Fences.—Messrs. Miller & Lux are now engaged in fencing their land near Firebaugh's Ferry. All along the banks of the San Joaquin large piles of lumber have been unloaded from the steamers, that run up the river during high water. This firm has one string of fence, five boards high, upwards of thirty miles in length.

MARIN.

Journal, Feb. 6: Rain.—We have had quite a rain storm, this time, cold. This is the first cold storm of the season, and it is fortunate that it did not come earlier. The first rains were so warm that the grass was well started, and stock was fortified against a spell of severe weather, so that the raiu now falling will confer a general benefit, while the cold that comes with it will do no harm. We have had two or three hail storms, and Tamalpais has had some white caps. The observation we have made before still holds good, that the season is exceedingly promising.

NAPA.

Reporter, Feb. 8: The following shooting scrape, which occurred ou the farm of W. H. Nash, and whose step-son, Chas. Pachett, is the hero thereof, rather beats any shooting we have lately heard of. It appears that in feeding the chickens a sack of screenings, which contained a considerable quantity of thistle seed, was fed at the time, aud strung along for quite a distance in the chicken yard. The fowls would eat up all the wheat and other grain, leaving the thistle seed. Flocks of red-headed linnets, whose pernicious bills are the worst that our fruit men have present on their premises during the fruit season, alighted along this row of thistle seed and devoured it. The boy, who is fourteen years old, having assisted every year in destroying the nests of these fruit-growers' pests, got his gun, and, lying down near the end of this row of songsters, blazed away. The first shot he killed 160 that he found; the next five shots he killed 243, making a total of 403 birds at six shots. Thistle seed, it would seem, is good for something, a fact of which we are truly glad, having despaired for years of finding out its mission.

NEVADA.

Republican, Feb. 4: The Storm.—Three feet of suow has fallen in Truckee during the last five days, and apparently the storm is not over yet. The railroad company have a large number of men stationed here and at the Summit ready for any emergency that may occur by reason of deep snow. The snow plows thus far find no difficulty in keeping the track comparatively clear of snow across the Sierras. A considerable number of Chinamen have been employed for the last two days in Truckee in shoveling snow from both the main and side tracks aud also in keeping the switches unobstructed. Wherever the side tracks are close to the main track, shoveling the snow by hand is a necessity. The snow plow in passing along where the tracks are near together, throws the snow from one track to the other. In freeiug one it obstructs the other. This moruing three engines with the snow plow preceded the passenger train across the summit, clearing the track.

PLACER.

Argus, Feb. 8: Prairie Chickens.—We understand that our old friend A. W. Sisson has received from Evanston on the line of the Union Pacific Railroad about one hundred Prairie Chickens which he intends to let loose on his ranch near the town of Rocklin. We always knew Sisson to be a jolly good fellow but had never given him credit with possessing quite as much of the milk of human kindness as he has in this act shown that he possesses. If the birds thrive in this climate it will not be long ere our sportsmau will have a new kind of game to go after.

The weather is delightful and our farmers are all smiles, and well they may be, for the prospects were never more encouraging. I am told there will be nearly double the acres of grain put in this year, near here, than ever before iu any one year; it is all up and growiug finely and the fields look beautiful.

Our sheep raisers, if possible, look happier than the farmers. Their ranges long ago were covered with a carpet of grass, consequently their sheep have gaiued sufficient strength to go through the lambing season nicely and with one-fifth of the usual loss. Their spring clip this season will be better and heavier than ever before, the sheep being thriftier.

In Township One, and a portion of Townships Nos. Nine and Ten bordering upon One, are 40,000 acres of land used for sheep grazing, and upon these lands there are about 35,000 sheep. The net profit on sheep, I am told, in ordinary seasons is about $1.25 per head. In these figures, of course, I do not include the lands and sheep lying south of this town (being on the grants and in Sacramento county.)

Some of your readers may at some time have wandered off across the plains west of this town, if so I dare say they wondered what earthly use the land, or some of it, could be put up to. Well, I will tell them. This section of the country not owned by the sheep raisers is farmed by those who look forward with as much interest for a good grasshopper and mullen crop as do the hog raisers to a crop of mast. I allude to the turkey men as they are called. I estimate there are 20,000 turkeys raised annually within ten or twelve miles of this place westerly. Some may smile at the idea of calling this a business, but let me say that this is a money making business; for with ordinary success they realize a net profit of about $1 per head, and a man with a capital of $300 can bring up a herd of 2,000 turkeys.

SANTA CLARA.

Gilroy Advocate, Feb. 8: A Farmers' Club.—How is it that our farmers in this end of our great valley have never organized a Farmers' Club? Such associations have been organized in other places, and are carried on with great advantage to the farming interests. Such Clubs can be made profitable in various ways. In thus meeting together farmers can impart to each other a great deal of practical, useful knowledge, valuable results of experience, propose experiments and improvements in modes of agriculture, and form combinations for protection agaiust capitalists. Surely the farmers of this community are numerous, intelligent and have enterprise enough to organize such a Club, with its headquarters in this city, and make it of incalculable advantage to their interests. All that is wanting is for some one to take the lead. We make this suggestion as a starter, to set others to thinking and acting. By all means let us have a Farmers' Club, and without delay. Let half a dozen or more of our farmers put their heads together and call a meeting of their brethern of this vicinity and set the ball in motion.

Dairy Farming.—Dairy farming, carefully and properly conducted, has always been one of the most profitable of the agricultural industries of the United States, and in no State has it paid better than in Califoruia. Among our most prosperous and wealthy farmers are those who, in one way or another, have made a specialty of dairy farming. The people of no other State have paid so dearly for their milk, butter and cheese as those of California. As prices have rated heretofore, it costs an ordinary family more to pay their milk, butter and cheese bills than to pay for the flour, potatoes, beans, onions, and other strictly home-produced agricultural necessaries they consume; and yet we are safe in the assertion that there is not over one farmer in the State that makes a practice of producing butter or cheese for sale to one huudred almost exclusively engaged in raising wheat and barley for the markets. While we are large exporters of wheat and barley, we still import annually over $1,000,000 worth of butter and cheese. Such are the inconsistencies of the California system of agriculture. We would most earnestly recommend our farmers to keep more cows, hogs and sheep on their farms, and cultivate less acres to grain We are satisfied that such a change in the practices of the agriculturists generally would result in greater pecuniary gains, and at the same time increase, rather than decrease, the fertility and productiveness of the soil.

A few acres well seeded to alfalfa or Chili clover, will, in this country, afford a good living to almost an incredible number of stock. We have noticed evidences of thrift and prosperity seconding those farmers who have already adopted this system over those who still adhere to the old plan of producing exclusively wheat and barley, and buying everything else consumed on their place.

SANTA CRUZ.

Pajaronian, Feb. 6: The Beautiful Snow.—On Tuesday morning the northern mountains were covered with snow, which has not disappeared as we go to press. A strange sight. Snow on the mountains a few miles distant, while in the Valley of Pajaro flowers bloom and green grass covers the earth like a carpet. Festoons of snow hanging from the branches there, and budding leaves peeping out between the warm rain drops here; crisp snow and frozen ground there, and farmers busy cultivating their rich lands here, while siuging birds warble to cheer them at their toil. Truly, California is a land to wonder at, and those who reside here, especially in the rich Pajaro Valley may well say that their lines are cast in pleasant places. California never had a more prosperous season, and the agricultural yield will be enormous. Every available team and plow is in requisition in all sections of the country, and the rich valleys and even the mountain-sides will be planted in grain. The winter thus far has been very pleasant. No floods, no freezing, howling storms, but the rain came down more like April showers, but with a little more energy thrown in. California has before it a splendid future and farmers may well rejoice at the present evidences of prosperity.

SAN JOAQUIN.

Argus, Feb. 8: The Planting Season.—Never were the farmers more favored by the weather during seeding-time than have been the farmers the present winter in the great San Joaquin Valley. Though the rains held off until December, 1872, the farmers had just succeeded in getting the immense crop of grain shipped away or housed when the great rain-fall commenced. After a heavy fall of rain, extending over a period of three weeks, during which time eight inches of water fell, completely saturating the surface of the earth to the depth of at least three feet, the weather became warm and pleasant as spring-time, enabling farmers to plow and plant large tracts of new land in addition to the volunteer and summer-fallow fields that had been put in during the fall months in the dust. And now again, during a cessation of nearly four weeks, the land is again refreshed by generous showers, giving impetus to the already vigorous growth of young grain, and vegetation generally. Already there has been a very large increase in the breadth of land put in cultivation in grain over last year, and with favorable weather during the remainder of the planting season the acreage in cultivation in this county, the present year, will double that of 1872. With spring showers to fill out the grain we may look for an unprecedented yield of the cereals throughout the valley this year, which, with fair prices for wheat in the San Francisco market and reasonably low rates of freight by the railroad and steamboat lines, the dull times now prevailing will be brought to an end.

Rainfall. — The rain-fall during the late storm, as we learn from Mr. Trivett, was .77 of an inch; previously during the season 8.40 inches. Total for the season, 9.47 inches.

SONOMA.

Flag Feb. 6: Hurd's Flouring Mill.—Last week Mr. Wright, of the firm of Wright & Brown of this place, purchased Hurd's flouring mill, located on Sulphur Creek, about one and one half miles from Cloverdale, for $10,000. The mill is five stories in hight, contains two run of stones, and the motive power is water, operating on a wheel fifty feet in diameter. The water is furnished by Sulphur Creek which supplies at least two hundred inches in the dryest part of the season.

Snow.—Last week. in company with M. Sullivan, of Cloverdale Hotel, we made a trip to Lakeport, Lake county. We found plenty of snow on the mountains, the first we had encountered for ten years, when we saw the ground covered with it for months iu Sierra county. Mr. Sulivan had not been in a snow reigon for twenty years. We enjoyed the sight hugely.

TULARE.

Delta, Feb. 6: Weather.—The rain for several days past has been quietly coming down at intervals at a rate that admitted of its full absorption by the earth. To day the weather is clear, warm and pleasant. We have rain enough now to guarantee the maturity of all early sowed grain.

The spring clip of wool in Tulare Valley will, we trust, be oue of the fiuest ever shorn. The herds are in fine condition, the mild weather having been unsually favorable for stock.

At least 15,000 grape cuttings have been taken from the premises of Mr. F. G. Jefferds, this season. If other vineyards have contributed as freely, there must be somethiug doiug in the way of grape culture in this vicinity.

VENTURA.

Signal, Feb. 1: Wheat Prospects.—A ride up to the Ojai this week showed us many of the finest wheat fields we have ever seen in the State. Nearly all sowed early there, and the consequence is that the crop was never more promising. Rain or no rain, the Ojai will likely make a larger and better crop of wheat than ever before.

Home and Farm.

The Farmer's Home.

Eds. Press:—In every issue of your valuable paper that familiar sentence greets the eye. Farmers, write for your paper. You must not be hard with us and think because we do not contribute, we do not wish to, for farmers always find something to do. It is during the few idle moments allotted to the tillers of the soil, that I ask you to bid adieu to the cares of newspaper avocation, and accompany a farmer's son, as he takes a cursory view of a farmer's home. I make no allusion, however, to the home of the individual styled loose and shiftless, he who after sojourning for a season in a locality "wants to sell." simply because he has not amassed an independent fortune. But I allude to the practical, common-sense farmer, he who farms to make it pay.

To such a one, home is a sanctuary of bliss. It is not merely loving friends and kindred affections that make it dear to him, but the very land itself teeming with its productions, the rolling foothills clothed in a canopy of green; and the sparkling streamlets, combine to throw a charm, round the old homestead. If his home is well regulated, nothing will be out of place. The machinery for reaping is not left to rot in the centre of a hundred acre field. No stray stock browse his orchard or trample the flower beds of his garden. Broken, tumble-down fences, are a rarity. His dwelling, humble though it may be, presents to the passing wayfarer a cheerful, inviting aspect, rendered more attractive as it becomes beautified by ornamental shrubbery.

His frugal but neat housewife, sees that every thing appertaining to her domestic duties, is zealously accomplished. Her children, those pledges of peace and happiness, bear evidence of mental culture and refinement. Who then cannot exclaim, the farmer is a happy man? Who so keenly enjoys the sweets of life as he? Though adversity may visit him, and tyrannical monopolies strive to crush him, still he wavers not; but, "as the busy bee doth toil," so does he continue to sow his broad acres, thankful at times for barely sufficient to make both ends meet. Yet shadows fall upon the hearthstone. Farmer's houses are not all alike. Every farmers's wife is not frugal. But if anything occurs to mar his happiness, who is to blame? May be the horse is baulky, an axle breaks, or the crop presents a rusty aspect; all tend to make a man irritable. May be the fault lies with the wife. The oft-droaded wash day is at hand, churning has ruffled her temper, and a harsh word is uttered, producing family discord, when supper hour arrives.

Difficulties similar in character, creep into the best regulated household, and are geucrally but momentary in duration. Yet, farmers, one word with you. If upon a retrospective glance at the year that has been numbered with the past, you are cognizant of the fact, that your fireside presented scenes of wrangling, and petty-quarrels, don't fret; no matter if your farm-house suffers by comparison with your neighbor's costly mausion; no matter, if your soil fails to produce a hundred fold, No matter. if your name is unwritten on the annals of fame; await these disappointments calmly. Be contented with your lot as you find it; and in years hence, when the hand of time, has whitened your locks, and wrinkled your brow, your's will be a blessed happiness; your home a paradise upon earth. J. A. G.

San Felipé, Monterey Co., Jan. 25th, 1873.

Why the Farmers are so Poor.

In Lynn money is tight when the boot and shoe trade is dull, for in Lynn they make only boots and shoes.

In Iowa money is tight when the trade in the products of the farm is dull, for only when the crops are in motion to market have we anything to sell for money.

The crops this year do not move, and the farmers are wondering where the money will come from to pay their taxes. Business men are coming closer to the vortex.

Such times were never seen in this country before We have gaily ridden high upon false prosperity for many years, while the corporations were getting "under holds," and now we are thrown.

The mining and manufacturing corporations have it so arranged with the Congress of the United States that by a tariff there is legislated to their cotton and woolen goods, iron, coal and leather an artificial profit.

Say the duty on iron is $9 per ton; that amount is the artificial profit poured into the iron master's pocket over and above the natural profit on production.

But whence comes the farmer's artificial profits? Where is the Congress which can legislate to his corn, wheat, oats, pork and cattle an artificial value? There is none. His produce sells at prices as low as before the war, while everything he buys, by operation of the tariff is at at a war prices.

A farmer would cheerfully sell his pork at $2.75 or $3 per hundred if cotton and woolen goods, salt, and other articles which he buys were at proportionate rates, but they are not. So a farmer comes to town and puts two loads of potatoes on his feet in the shape of his winter boots. If he stays all night he will eat a load of oats. His wife wears five acres of wheat, and the children each ten acres of corn, and are not very warmly clad then. For an over-coat he wears a good four-year old steer, and if he sports a Sunday suit it is in the shape of at least twenty head of fat hogs. And on the top of that his farm wears a mortgage that is worse than hard-pan to the soil, and the annual tax rots into his roof worse than rain.

He must eat and wear, and from the small price of his produce must pay to the manufacturer the artificial profit which the tariff puts upon his goods, while the profit which the farmer should realize goes to the railroad corporations for carrying his crop to market.

Should we be asked the process by which this state of things has been reached, we could only answer that it is by our Congress, Courts and Legislature making moneyed corporations of all sorts supreme and superior to the people.

It was not so once. There was a time when the people were supreme, but that time is gone. *Iowa City Press.*

The Epizootic.

Details of its Source and Treatment in Connecticut.

His Excellency Marshall Jewell, Governor of Connecticut:

Sir: In compliance with the duties assigned me by the authority of the commission given at your hand, October 31st, 1872, I have the honor to submit the following report in behalf of the State board of agriculture:

The Epizootic malady which has so seriously involved the equine race, and which has swept over this portion of our country like the plagues of the middle ages, has now made its appearance upon the Pacific slope, and upon the islands of the sea. It also appeared nearly simultaneously upon the eastern continent, and in a modified form has occurred in South America where it has been raging with fearful mortality among the cattle upon the pampas. And though this is not, strictly speaking, a new disease, yet in its geographical distribution and severity, it is unparalleled in the annals of history.

Hence it would appear in accordance with well established principles of medical geography that this epizootic could not have been ushered in by any local cause. We must therefore look to the physical condition of the surrounding media and more clearly interpret the ultimate effects of those cosmical agencies which govern our planet and thus operate upon all mundane creatures through the atmospheric vault that surrounds us.

The Vegetable Germ Theory,

Though claimed by many to account for the sudden appearance of this epizootic, is in my opinion fallacious. It does not harmonize with all the existing facts. The disease began and is still extending westward, when these fungus germs are not ordinarily the most active nor abundant. Can it be that in the mountainous districts of Colorado, and along the Coast Range where the disease is just appearing, that these spores in mid-winter have taken on a new phase of activity, and thus become more malignant in their effects when all other vegetation in that latitude slumbers in repose?

If it be the presence of these microscopic fungi in the atmosphere which has caused the disease in the horse by inhalation, why have all other air-breathing animals so marvelously escaped? And again, if we examine the floral geography of our country, we shall not find a single species of either cryptogamic or phenogamic vegetation that is indigenous to all those regions which have been visited by the epizootic.

Therefore we must conclude that the causes which have operated upon two continents, and on both sides of the equator, in producing the disease are planetary in their origin, and recent scientific researches have demonstrated the close atmospheric and thermal relations of our globe with the recurrence of the maximum of sun-spots in super-annual cycles, which occur once in about twelve years.

And thus we can the more clearly comprehend the cause of the excessive and continued heat of last summer, during which many vegetable blights and this animal scourge were brought upon the land. The high temperature of our zone would necessarily cause an unusual aerial current from those northern regions where influenza and the bronchial affections abound to an extreme degree. Hence we have had in this latitude all the climatic conditions favorable for the development of the catarrhal fevers, in which class the epizootic in question naturally belongs.

There was a marked difference in the degree of severity which characterized this disease in the various localities throughout the State. And the condition in which the horse was found had no little influence in determining the character of the malady. Horses in the stables had the disease the worst, and the largest mortality occurred among the old and those that had been over-worked. While in certain rural districts many of the horses were not attacked, especially if they were occasionally out to grass. And it is a noticeable fact, that most of the young horses in the pastures were quite exempt, or had the disease very lightly—the same as our cattle and sheep, while in that condition; but others, on being brought into the stable, have since had the disease in a mild form. Therefore it is evident that the vegetable germs which should abound in pasture land, had little or nothing to do with the disease. But the vitiated condition of the atmosphere in the close stables, during the continued heat of last summer, must have greatly interfered with a healthy elaboration of the blood, and hence the system of the horse alone, being the only creatures thus conditioned, were fitly prepared to fall victims to this epizootic calamity.

Symptoms.

The first symptoms manifested in the horse were those of an incipient fever, which caused an elevation of heat of two or three degrees; but this was soon followed by soreness in the throat, and excessive coughing and general prostration. Hence, typhoid laryngitis was apparently the first form of the disease all over the country; and this in many respects resembled the common distemper to which horses are frequently subject, especially when taken from one climate to another. But the disease did not stop here. It rapidly extended down the bronchial tubes until the inflammation had reached the finest air-cells of the lungs. And in many cases, from want of care and exposure, those vital organs became hopelessly involved. The temperature, in several fatal cases which I observed, just before death, reached as high as 108 degrees Fahrenheit, when tested by a self-registering thermometer in the rectum. And, upon a post mortem examination, I found the mucous membrane of the larnyx and bronchial tubes much inflamed and congested, copiously bathed in a muco-purulent discharge, similar to that which came from the nostrils, at the commencement of the disease.

In the sequel form of this disease, which much resembled the anasarca of scarlet fever, I found the kidneys very inactive, and the urine very heavy, high-colored and loaded with albumen. These organs were completely gorged with epithelum and other waste products of the system. Hence, the kidneys could not perform their function, and, consequently, as the watery element of the blood could not escape through its natural channel, it was transmuted through the walls of the vessels, and thus accumulated in the connective tissues, beneath the skin of the most dependent portions of the body. This was the "dropsy" which many supposed was a new disease, yet it was in fact the "water farcy" of the older authors.

This disease is not wholly an equine malady It has slightly involved the bovine race and the human family, and would undoubtedly have proved equally serious among our cattle, had their condition been the same as with the domestic horse.

Treatment.

The treatment must, of course, vary according to the stage of the disease and the general condition of the animal. When the fever and cough first appeared, I gave of the tincture of aconite from five to ten drops, per dose, in a little water several times per day; and as an antispasmodic to control the paroxysms of coughing, I gave drachm doses of the tincture of belladona occasionally, according to the severity of the case. Chlorate of potash, when given in teaspoonful doses on the feed twice per day, had a very soothing effect upon the irritated membranes of the throat. Liquorice was beneficial also, if freely given, in any form. The flaxseed poultice and other warm applications to the outside of the throat were of great service in controlling the internal inflammation.

But later in the disease, I frequently applied a liniment composed of equal parts of sweet oil, aqua ammonia, and turpeutine. When the inflammation had extended downward, and thus involved the lungs, anodynes were our chief resort and the safest remedy. A common horse requires a half-ounce of laudanum every four hours, and many times I have given an ounce with beneficial effects, when all other remedies seemed of no avail in this bronchial inflammation. The sweet spirits of nitre, in half-ounce doses, served an important place in our veterinary pharmacopiæ; digitalis and the syrups of squills, ipacac and tolu formed very essential elements in the successful treatment of this form of the disease. There was a great mortality throughout the State from bronchitis, simply because too many relied upon the patent medicines, rather than upon these valuable agents, which the profession for many years have endorsed. As there was great prostration of the vital powers, tonics and stimulants were early required. And, in fact, all forms of inflammation are more successfully treated by the alcoholic stimulant than any other. Hence I freely gave gin, with the compound tincture of Peruvian bark and other bitter tonics with iron.

In the dropsical form of this disease I found the acetate of potash the most trustworthy diuretic to restore the faulty condition of the kidneys. I gave it in ounce doses every four hours, in some severe cases, but usually about three times per day, dissolved in water. I often used turpentine in half-ounce doses to stimulate those organs to a more vigorous degree of activity, and with good results.

The condition of the feed was an important element in the first form of the disease. I gave warm mash wholly, and no dry hay or oats. And many fatal cases might have been saved had those regulations been more strictly complied with.

To purify the air in the stables, I ordered the free use of carbolic acid, chloride of lime, and other disinfectants, of which tanbark was a valuable agent, in modifying the severity of the disease when used as bedding,

Kind and watchful attention had much to do in saving the lives of these poor afflicted creatures. Respectfully submitted,

N. Cressy, M. D.,
State Veterinary Surgeon.

Arrival of Immigrants.

On January 30th there arrived in this city by the steamer "Montana" one hundred English and Scotch working men and women, in charge of William Vale. They are all under contract to persons in this State to work for two years. The party consisted of seven dairymen, twenty farmers, five grooms, ten gardeners, two butlers, ten cooks, ten laundresses and about twenty-five general house servants. They are all sober and healthy, and of the better class. One-half were women. The Scotch were procured in the northern and western portions of Scotland, and the English are from the middle and southern counties. The transportation cost £17 6s. each. Owing to the rough weather they made the unprecedented passage from Liverpool to New York of eighteen days. The steamer usually reaches New York from Liverpool in ten days. The voyage from New York to this city lasted thirty days. They were detained in New York ten days, as they missed the Panama Steamer. Notwithstanding that they were free to roam about, not one deserted the party. Mr. Vale arranged a dance for the immigrants during their stay in New York, and on the evening of the party a number of First Ward roughs, attracted by the Highland airs from the Scotch bagpipes, endeavored to force their way into the dance. The Scotchmen were by no means intimidated, but, inspired by the strains of their favorite musical instrument, promptly expelled the intruders, and the party "tripped the light fantastic" until the "wee sma' hours" without further molestation.

Before departing from their native land, the immigrants entered into an affidavit of service, swearing that they were of sound health and capacity, and that they would remain in faithful service for two years, and return the amount of the money advanced to them, at the expiration of the two years. Each person gave a bond with two respectable sureties to the amount of the passage money, that he or she would keep the contract. The wages are by a small percentage less than the current rates, to cover any risk in regard to health or the dangers of the voyage. Messrs. Vale & Co. will send the immigrants to every part of the State, thus scattering the good seed broadcast. The farmers are mostly all Scotch, and are first-class workmen. They range from twenty to twenty-seven years of age. Eight boys, ranging from eighteen to twenty, who are excellent milkers, are for Marin county. The majority of the party were yesterday sent to their homes. Mr. Vale speaks in the highest terms of the immigrants. During the whole trip from Liverpool there was not one case of intoxication, and the greatest harmony prevailed. Among the citizens who have contracted to employ the persons, are the following named: Alvinza Hayward, D. O. Mills, F. D. Atherton, G. H. Howard, Colonel Hollister, Elwood Cooper, T. H. Selby, Milton S. Latham and S. R. Throckmorton. They have taken from three to ten each. Mr. Cooper will employ ten.

In the Spring Mr. Vale will return to Scotland for the purpose of bringing out one hundred small farmers, who are already engaged. They will come out to lease land with the privilege of buying. They will bring about £200 each with them, and will probably locate at Monterey. It is expected that they will reach this State between now and next May. These farmers will bring their families, numbering 500. In addition to these, two or three hundred servants will be brought from England and Scotland. They will make affidavits of service and furnish bonds, etc.—*Call.*

The Sheep Business.—The sheep farmers are sanguine this year, and calculate that the present rain storm will be followed by mild and pleasant weather. The sale of sheep at present is by no means active: The prices are high, and few breeding sheep are changing hands. As shearing and lambing approaches, the sale of sheep is naturally dull, for farmers who have held their stock throughout the year are not willing to part with them unless at high prices until after this period. The scarcity of bucks last year will affect the breeding of a fine class of sheep, as from the high prices of sheep and wool for the last ten years, many ewes that would otherwise have gone to the butcher are retained. Some sheep have been sold to the farmers on the San Joaquin and Sacramento rivers for the purpose of treading in grain on the adobe land. The grain is scattered on the surface and the flock is then driven over the land and the grain pressed in. Many Australians and people from New Zealand are now looking out for sheep and ranches in this country, and getting posted as to the practices of sheep raisers here.—*Bul.*

A New Very Early Peach.—Thomas Rivers, the well-known reliable fruit grower of Sawbirdgeworth, England, has, during a few years past, originated many new and early ripening peaches of good quality. Among them one called the *Early Beatrice* we learn has been fruited by S. G. Bilyeu, of North Carolina, who says that it does not rot, is of good size and color, and of superior quality, ripening two weeks earlier than Hale's Early. Other accounts which we read and hear of it, make it a peach of great promise. Ellwonger & Bany will have trees of this new variety of peach, for sale the coming Autumn.—*Ohio Farmer,*

Useful Information.

Mysterious Fires.

The secret destructive fires, and their not-unfrequently mysterious occurrences, has lately attracted much attention to the subject of the origin of conflagrations. It appears that the Fire Marshal of New York has recently been holding steam responsible for some of the mysterious fires in that city. In reference to this surmise a cotemporary asks and answers as follows:

Can Buildings be Set on Fire by Steam-pipes ?

As steam may be considered to be the most safe, healthy and economical of all modes of heating buildings, such a suspicion is to be deplored, as it is apt to raise a prejudice against it; but hot-air furnaces may be considered dangerous, as proved by the well-established evidences of the fire records, but not so with the steam heating. In fact, there is not any well-autheuticated case on record wherein pipes, through which steam passes, have actually set fire to woodwork, and no one experimentor has yet succeeded iu igniting wood with such pipes. We maintain that any man of science who has studied the subject of steam, or any practical engineer of common sense, knows that all that steam can do, even when superheated, is to make the woodwork hot and dry, and to predispose it to catch fire. The spark must be supplied from another source; the steam tubes can never attain, outside the heating apparatus, the high temperature of 900° or 1,000° Fah. required for the red heat which is necessary to set woodwork on fire.

In this city many of the steam heating apparatuses arc worked on a pressure not above 10 lbs. per square inch, in excess of atmospheric pressure, which gives a heat of 241° F. for the water in the boiler, and a somewhat less heat, of course, for the stoam which circulates through the pipes. In the majority of buildings heated by steam, a common boiler is used, from which steam-pipes are carried through the premises, and an ordinary pressure for such boilers is 40 lbs. per inch, which gives a heat of 289° F. At a pressure of 120° lbs, above the atmospheric pressure, we have a heat of 355°. It will thus be seen that at pressures far above any that are used for heating purposes the heat circulated in the steam-pipes is much below that required for the ignitiou of wood.

That steam-pipes predispose woodwork to combustion, and even may assist the spontaneous combustion which is apt to commeuce iu rags soaked with any animal or vegetable oil, cannot be denied; but then any hoating apparatus will do the same, and steam is iu this respect not so dangerous as a draft of hot air proceeding from a furnace, in which a leak may carry a spark upward, while a leak from a steam tube is utterly harmless. In regard to spontaneous combustion, any danger of that, from oil, may be avoided by usiug for lubrication the heavy lubricating petroleum. This material is not apt to oxidation or spontaneous heating, as one of our esteemed correspondents discovered and published in our paper several years ago; which valuable property is now also beiug publicly recognized in Europe.

The subjoined is a not uncommon iustance of spontaneous combustiou; but the conditions are such as are quite too little heeded:

Several weeks ago the new stable of S. S. Metzger took fire aud burned to the ground in the midst of a drenching rain; no fire had been used about the building, and there was no way of accounting for the origin of the fire but by attributing it to an inceudiary or to spontaneous combustion. The men engaged iu painting and finishiug Metzger's new house had been graining shutters for the house in the stable during the day before the fire, but it was scarcely thought possible that the fire could have originated from that source. The stable having been burned, the paiuters next day transferred their graining to the cellar of the house. That evening the inmates of the house discovered a smoke and a smell of burniug cotton or paper issuing from the cellar. Au examination disclosed the fact that the oiled rags used by the painters iu graining had beeu thrown together in a corner and had ignited by spontaneous combustiou, and were just bursting into a flame. This timely discovery saved the house and settled the question as to the origin of the fire iu the stable. Next day a nail keg was partly filled with the oily rags cast away by the painters and set iu the sunshine in the yard. In a few hours the rags and keg were found to be on fire. Very few people are aware of the dangers arising from such a source.—*Bedford (Pa.) Enquirer.*

Coal Igniting by Pressure (?)—We often hear of coal, highly charged with sulphur and iron, taking fire from the addition of a small amount of moisture, kept short of the poiut of saturation; but we infer that the coal heap referred to below was not subjected to such conditions.

A Chicago paper of recent date says that the Chicago Gas Light and Coke Compauy received, during the summer, 10,000 tons of Pittsburgh coal, which was stored in an immense shed at the works, near Division street bridge. On Friday morning of last week flames issued from the heap, and it was soon apparent that the lower stratum was on fire, causcd, it is supposed, by the great pressure producing spontaneous combustion.

The Retention and Coloring of Eggs and the Mimicry of Sounds by Birds.

A correspondent of *Nature* forwards the following interesting facts observed iu New Zealand: Regarding the length of time during which a bird can retain its egg, the case is mentioned of a kingfisher that began six nests, abandoning all in turn and depositing her egg in the seventh, after working for six weeks iu a condition analogous to pregnancy. The labor was incessant, three of the homes that were excavated in a turf chimney and abandoned being so far finished that a deposit of eggs must have been imminent on three occasions during the above period.

In answer to the question: Can a bird influence the color of its eggs protectively? the writer says that a female bittern, when kept in a grassy enclosure, laid an egg of a pale-bluish green color, precisely like that of a heron. The egg of the bittern naturally is of an olivaceous buff tint, which harmonizes well with the half-faded leaves of aquatic plants, of which the uest is often built. It is, doubtless, probable that the egg thus became tinged to secure for it the protectiou of the verdure of the grass in which it was deposited. Another and more curious instance is that of the whistler, or small cuckoo placing his egg in the nest of the blight bird. The latter is a bird foreign to New Zealaud and builds a suspended nest; the eggs are clear-blue green iu color. The egg of the cuckoo is greenish-dun, but in order to place it in the hanging nest, where it will be free from reptilian invaders, the writer has found cases where it has manifestly changed the color to one closely resembliug that of the eggs of its dupe, so that the latter would fail to distinguish the addition to its deposit.

Referring to the mimicry of sounds, it is stated that, in camping for some days on a river-bed, the author frequeutly heard what he took to be one of the notes of the *hæmatopus*, but that wader was nowhere to be seen; at length he traced the call to the piopio, a bird with feeble powers of flight, yet oue that delights in the open glades of river beds. The mimic cry was always given when near to a stream, just where the redbill (*hæmatopus*) would be likely to be found. A pair of redbills can drive away a hawk; now a hawk, "from his place on high," perceiving something near the water, might forego its swoop on hearing the mimicked note of the wary yet bold redbill. The common gray warbler, it is also stated, gives an exact imitatiou of the cry of the common tern, one of the boldest birds iu defence of its young.

Spontaneous Combustion.

With many of the various ways by which spontaneous combustion may be effected, the public are already familiar; but late observations have developed some comparatively new sources of danger in this direction, which may be instanced in the following paragraphs which which we have clipped within a few days from our exchanges:

A Novel Case of Incendiarism, and Something New in Optics.—The *Industrial Monthly* says that "A mysterious fire, which twice iu oue day came near burniug up a house in Guilford Conn., was finally traced to some tin pans, from which the rays of the sun had refracted with sufficient intensity to start a blaze at a focus some distance off." This was certainly a new way of setting a house ou fire; and if, as our cotemporary states, the rays were *refracted* by the tin paus, it was an optical anomaly of which we wouder that he did not suggest some explauation.

Oscillation has a wonderful effect upon even powerful bodies if not frequently broken in the vibration. We have frequently seeu notices placed at the ends of large suspensiou bridges, that processions must break step in crossing; this has to be done to ensure safety.

It is stated iu illustration of the effect of the phenomenon in question, that wheu the first suspension bridge was building in England, a fiddler offered to fiddle it away. Striking one uote after another, he eventually hit its vibrating note, or fundameutal tone, and threw it into such extraordinary vibrations that the bridge builders had to beg him to desist. Ouly recently a bridge went down under the tread of infantry in France who had not broken step, and threo huudred persons were drowued. The experiment is well known of a tumbler or siuall glass vessel being broken by the frequent repetition of some particular note of the human voice.

To Blacken Brass.—Warm the brass over the flame of a Bunseu burner or a spirit lamp, and plunge it while hot iuto nitric acid for two or three seconds. Then return it to the flame, aud heat it till it blackens, brush off blisters, and lacquer. Another way is to use a liquid containiug two parts of arsenious acid, four parts of hydrochloric acid, and oue part of sulphuric acid, in eighty parts of water.

Zinc may also be given a fine black color by cleaning the surface with sand and sulphuric acid, and immersiug for an iustant in a solution composed of four parts of sulphate of nickel and ammonia in forty of water, acidulated with oue part of sulphuric acid, washing and drying. The black coating adheres firmly, and takes a bronze color under the burnisher.

Good Health.

The Blood-Circulation and Heart Disease.

Dr. Black, in the *Popular Science Monthly*, explains very clearly the nature and causes of heart-diseases, and refers it largely to the breathing of vitiated air. What he says about the relation between the blood and the diseases of the heart is worth special atteution.

The third great vital function which influences the degenerative tendency of the heart is that of the circulation of the blood. To preserve the health of the tissues, the blood must not ouly be pure and rich in the materials of growth, but it must flow with a certain speed through all the blood-vessels. If the speed with which the blood moves is on the side of either *plus* or *minus* of the standard of health, disease will shortly arise. If it is on the side of *plus*, active disease of the heart, where that organ is the one to suffer, will follow. If on the side of *minus*, tissue degeneration will ensue. Active diseases will be the consequence before middle age; degeneration after that period.

These facts teach that all violent and long-continued efforts of the body should be avoided. They hurry the heart's action to an inordinate degree; they cause it to throw the blood with great force into the extreme vessels; and, as there is almost always one organ of the body weaker than the others, the vessels of this organ become distended, aud, remaining distended, the organ itself becomes diseased. Running, rowing, wrestling severe horse-exercise, cricket, foot-ball, are fruitful causes of heart diseases. Those which require the breath to be suspended during their accomplishment are more fruitful causes in this respect than those, which require no such suspension of breathiug. Rowing, lifting heavy weights, wrestling and jumpiug do this; and of these, rowing is the most powerful for evil. At every effort made with the hands and feet, the muscles are strained to their utmost; the chest is violently fixed; no air is admitted into the lungs; blood is thrown by the goaded heart with great force into the pulmonary vessels; they become disteuded; they at length cannot find space for more blood; the onward current is now driven back upon the right heart; its cavities and the blood-vessels of its walls become in like manner distended; the foundation of disease is laid Hypertrophy, hæmoptysis, inflammatory affections of the heart and lungs, are the consequences in the young; valvular incompetency, rupture of the valves or of the muscular fibers of the heart, pulmonary apoplexy, and cerebral hemorrhage, are too frequently the immediate consequences in those of more mature years.

Removing Pimples from the Face.

First, be assured what will not "remove pimples from the face." No drug, either administered to the stomach or locally applied, will do it. Neither will any mere local means whatever have the desired effect. The ouly course which promises success is purely hygienic, and has reference to the general health with the view of improving the face indirectly. Give every attention to puro air, plenty of sunshine, proper food, due exercise and thorough cleanliness. Two things are particularly important: 1. The skin must be made to do extra duty, and to this end bathe it quickly all over every morniug in a little cold water, rubbing it until quite red. Two or three times in the week use soap freely. Not one person iu a hundred, even of those who pretend to bathe often and much, keeps himself decent under the arms, over and between the shoulder-blades and down the back. Think, therefore, especially to bathe and scour and rub the parts you are most likely to neglect from their being difficult to reach. 2. Eat one-third less at each meal than you have been accustomed to eat—that is, as little as you can get along with, without actual suffering from the seeming need of food. Food should be plain and nourishiug—no pastry, no nuts, no grease in any form, unless sweet butter in very moderate quantity. Avoid salt, except what comes cooked in the food, and avoid for the most part acids which will preclude the use of all fruits, except as they are cooked. The paramount points may be stated in a line when we say; Bathe much; breathe much; eat little and well; avoid pastry, grease, nuts, salt, aud largely acids.—*Dio Lewis.*

Woman's Drudgery.—The hygienic system is pre-emiuently the cause of woman—both as respects the preservation of health and the treatment of disease. A simple and wholesome plan of cooking would relieve her of oue-half of her present hard toil and drudgery, while it would promote the health of every meiuber of her household. At least four-fifths of all the money expeuded for mediciues and medical advice, are paid because of the diseases of women and children. And, nine-tenths of all the care, nursing, night-watching, and privation of sleep aud rest because of sick children, are performed aud suffered by women. The Medical Society in New York, which, on one of its occasions toasted womau iu the following words, had truth if not poetry as the basis of the sentiment.

"Woman—God's best gift to man, aud the chief support of the doctors." — *Science of Health.*

Kerosene Oil in Chronic Rheumatism.

Dr. Kemp, of Wellington, New Zealand, relates several cases that have lately come under his notice, in which the internal administration of kerosene oil has had the most marked effect on chrouic rheumatism. The following is one of his cases:—J. H., aged forty-six, a sailor, had suffered from chronic rheumatism for twenty years. He never had an acute attack. He used to have agonizing twinges iu his feet and legs; he compared the pain to that which would be produced by the skiu being seized by a pair of tweezers and forcibly pulled. The attacks would come on about every ten minutes, and often for every three or four days and nights. He had been under medical treatment for many months, but never had more than temporary relief. He began to feel the intervals betweeu the attacks lengthen in six weeks after commencing kerosene, and in less than three mouths the pains had entirely left him. After discoutinuing it for some time, the pain slightly returned, but was always cured by taking two or three doses. A teaspoonful was taken iu a wine-glass of water every other uight. The kerosene produced uo unpleasant symptoms, no loss of appetite, no effect upon the bowels or kidueys. Dr. Kemp observes, that although kerosene cannot be called a specific for rheumatism, he thinks that the cases he cites are quite sufficient to induce medical men to give it a fair trial. He is unable to find any unpleasaut symptom caused by taking kerosene. The great objection with many people to taking it is the unpleasant taste and smell. Some have taken it in water or milk, but he had heard a patient say he could take it best with salt; a pinch of salt being put in the mouth and allowed to dissolve, and the oil then swallowed, mixed with about its bulk of water. Dr. Kemp is not aware of the remedy having ever been used internally, but he hopes some medical man will be found who will give it a trial, and record tho results of their cases. Externally, it is of great use in cases of burns, whether severe or slight; it seems to relieve pain more than any other application, especially if resorted to as soon as the injury is received. Cases of severe burns have been known to heal up rapidly under its use alone.—*British Medical Journal.*

Wholesomeness of Food.

The wholesome or unwholesome character of any aliment depends, in a great measure, on the state of the digestive organs in any given case. Sometimes, a particular kind of food is called wholesome because it produces a beneficial effect of a particular character on the system of an individual. Iu this case, however, it is to be considered as a medicine, and can be called wholesome only for those whose systems are in the same condition. Very often a simple aliment is made indigestible by artificial cookery. Aliments abounding in fat are unwholesome, because fat resists tho operation of the gastric juice. The addition of too much spice makes many an innocent aliment injurious, because spices resists the action of the digestive organs, and produce an irritation of particular parts of the system.

In any given case, the digestive power of the individual is to be considered, in order to determine whether a particular aliment is wholesome or not. In general, we can ouly say, that aliment is healthy which is easily soluble, and is suited to the power of digestion of the individual; and in order to render the aliment perfect, the nutritious parts must be mixed up with a certaiu quantity of innocent substance affording no nurishment, to fill the stomach; because there is no doubt many persons injure their health by takiug to much uutritious food. In this case, the nutritious parts, which can not be dissolved, act precisely like food, which is, in itself, indigestible.

It is a very mistaken idea that the nourishment in food is accor ling to the quantity; a person may eat a great deal of some articles, and receive very little nourishment from them. The quantity of nourishment depends greatly on the aromatic flavor contained in food aud whatever is insipid to the taste is of little service to the stomach. Now, the differeuce between good cookery and bad cookery lies priucipally in the development of the flavor of our food; articles properly cooked yield the whole of it; by good cookery we make the most of everything—by bad cookery, the least.—*American Rural Home.*

Fatal Fly Bites.—Deaths very frequently occur from slight punctures made by flies iu warm climates. Occasioually such cases occur in temperate zones, but tho cause of such a melancholy result from a slight wound iu the skin does not seem sufficient to produce excessive swelling, pain, discoloration and other extraordinary appearances which are quickly exhibited. It is, therefore, possible that the iusect which makes the tiny wound has its proboscis charged with an active poison from some source where it had recently been foraging, which introduced into a bleeding wound and rapidly carried by the absorbents into the system, is followed by death.

Observation on those forms of ophthalmia so commou in Egypt, euding iu blinduess of one if not both eyes, leads to the opinion that the dreadful malady is propagated by flies, carrying on their feet and feeding tubes, purulent matter from diseased orgaus whence they are kept away with difficulty, to sound ones, where they are attracted by moisture on the margin of the lids.—*Ex.*

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SAN FRANCISCO:

Saturday, Feb. 15, 1873.

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STOCKTON.—Some one sends back one of our blank notices from this city, with no name or mark to indicate who it is from. Out of several hundred subscribers at that postoffice we can hardly guess the right one. Will the subscriber write again?

OWING to a recent change in our mailing department we find some papers have missed our subscribers. Our papers will go out with greater precision now than ever before. Those who have missed copies of the paper will please write for them, and we will re-mail them free.

OATS.—We have a small lot of Potato Oats and also of White Schonen oats, which we will distribute free in small lots as long as they last, to those who will pay postage on the same. Our method is, to gather in the orders for a week and then take one day, Wednesday, to make up the packages and send them off.

We have also the Peeler upland cotton seed; samples of wheat from Oregon; White Silesian Sugar beet and Velmorin Improved Sugar beet, for distribution on the same terms.

ON FILE.—Bugbears; Profits of Wheat Growing, by Farmer; D. C. T. Riverside; Subsoil, Watsonville; De Spain, Olema; Pansy, Oakland; Spaying Sows; From J. M. Duttou, Yolo; Sectiou of Big Trees for Vienna Exhibition; Lands in Los Angeles County.

OAKLAND FARMING CLUB.—Friday evening. Feb. 14th, Dr. E. S. Carr, the President, will lecture on "Man and Land." The committee on the best methods of exterminating squirrels, gophers and moles, are expected to report.

IN England, this year, 1,882 head of Short-Horn cattle have been sold for about $555,000. The average price was not far from $300, and the highest $3,250.

Something on Seeds.

The Principal Kinds Sought, Prices, and Where Obtained.

In every country where agriculture has become a science, the seed trade is a matter of great importance, and in fact intelligent and reliable seedsmen are almost as necessary to the farmer as heat and moisture are to his grain fields. He has neither the time, knowledge, nor the inclination, to make a specialty of seed raising; very often the soil, temperature and other surroundings are unfavorable. As a general thing, save for a few of the more common cereals, he has to depend almost entirely on the seed merchant. In the following article we aim to inform our readers as to the best seeds in the market, those now most in demand, and their present prices. We shall begin with

Vegetable Seeds.

BEANS.—The early China Bean is now the favorite with buyers, on account of its ripening earlier than any other variety. The seeds, when ripe, are white purple, speckled. It is planted very early, and most of the seeds are raised here. They are now selling for 12½ cents per pound—a very high price, as they are usually only from five to six cents. The Early Valentine, with salmon colored seeds, speckled with purplish rose, is also an excellent variety, sown early, and comes early into the market.

BEETS.—There are half a dozen varieties of beet seeds in the market; but the principal are Early Blood Turuip, White Sugar, and Mangell Wurtzell. The seeds of the Early Blood Turnip are brownish, as also are those of most others. They bring from 50 cents to $1.50 per pound in this market. Of the Sugar Beet, of which there are two principal varieties, the Yellow and the White, so called from the color of the beet, the White is decidedly the favorite for sugar making purposes. The importance to the future of the State of the cultivation of the Sugar Beet has been often commented on in the RURAL PRESS, and is now well understood. Before many years it promises to become a leading article of production. The White Sugar Beet seeds are from 50 to 62½ cents per pound—the former being the price of those raised here. Some of the beet seeds grown here are sold at from 15 to 20 cents per pound; but they are decidedly of an inferior quality. Those imported come from the East—from Germany and France. The fault with those who raise this seed here is that instead of transplanting the roots they allow the plant to run to seed, which often renders their seed product worthless. The seeds of the Mangel Wurtzel for cattle feeding, are sold at the same price as those of the Sugar Beets.

CABBAGES.—Of cabbage seeds the most esteemed are the Early York, the Early Ox Heart, the Large Drumhead, and the Flat Dutch. Most of the cabbage seeds sold in this market are imported from the East, and from Europe. The Early York and the Early Ox Heart are sold at $2.50 per pound, and the Large Drumhead at $3 per pound.

CAULIFLOWERS.—The Early London, the Large Asiatic, the Early Paris and the Large White French are the varieties of canliflower, the seeds of which are most sought after. They are nearly all imported, only a couple of gardeners raising them here. The price for the seeds is from $8 to $16 per pound.

CORN.—In green corn the principal kinds in demand are the Early Eight Rowed Sugar, Stowell's Evergreen, and the Mammoth—all California kinds and retailed at 15 cents per pound.

CUCUMBERS.—Of cucumber seeds the principal are the Early Short Green, the White Spine, the Green Cluster and the Long Green—all excellent varieties, and nearly all imported. They run out very soon in this State. The seed now costs from $1.50 to $1.75 per pound.

LETTUCE.—White Cabbage, Romaine and Curled Silesia, all $3 per pound, are the chief varieties.

MELONS.—Melon seeds are all imported. The principal varieties of musk-melons are Fine Nutmeg, Green Citron and Canteloupes; in water-melons, the Ice Cream, the Black Spanish and the Mountain Sprout. Musk-melon seeds bring $1.75 per pound; those of water-melons the same.

ONIONS.—The principal varieties of onion seeds called for are Large Red and Yellow Danvers. There are more of the latter raised here than the former. The Large Red are sold at $2.50 per pound, the Yellow Danvers are much cheaper, being only $1.50.

PEAS.—The varieties of peas are almost innumerable. The following are the principal: Carter's First Crop, Daniel O'Rourke, Michanx and Tom Thumb for early peas. For later ones we have the Champion of England, the Dwarf Marrowfat, the Blue Imperial and the Blue Prussian. All, save the Tom Thumb, which is a light bearer, average 15 cents per pound, but it is sold as high as 25 cents.

PARSNIP.—Long White Parsnip seeds are all imported and sold at $1.50 per pound.

RADISH.—Radish seeds imported bring from $1.00 to $1.50 per pound. Long Scarlet Olive Shaped, Scarlet Turnip, Black Spanish and Chinese Winter are in favor.

SQUASHES.—Amongst the many varieties of squash which grow in California, the seedsman finds most customers for the following choice varieties. Golden Bush, White Scolloped Bush, Summer and Winter Crookneck, Boston Marrow and New Hubbard, sold at from $1.75 to $2.00 per pound.

TOMATOES.—Those who wish to raise one of the most delightful of vegetables, Tomatoes, have the Early Red, the Extra Early Red, the Large Red, and the Trophy to choose from The Trophy, the seed of which are mostly imported from New York is distinguished for its large size, and for the fullness and closeness of the meat or pulp. Its seeds bring from $8 to $10 per pound, while the more common kinds are not worth more than $3. In our last week's issue we gave engraving and notice of still another variety, the Victor, which gives promise of being among the best early sorts, the seeds of which will doubtless be procured by our amateur cultnrists and market gardners.

TURNIPS.—We shall close our notices of vegetable seeds with those of Turnips. The best table varieties, the seed of which are worth in San Francisco $1.50 per pound, are the Whitestone, the White Dutch, the Red Top Strap Leaf, and the White Flat Strap Leaf. Ruta Baga seeds are worth $1.00 per pound.

[To be Continued.]

Not Indigenous to California.

The Boston *Journal of Chemistry* says, that Professor Asa Gray, in his address on "Sequoia and its History," remarks that most of the characteristic forms of vegetation of the Atlantic States are wanting in California, and *vice versa*.

That, however varied and wonderful the flora of that region may be, there are many trees and plants familar to dwellers on the Atlantic side of the continent which it does not include.

He enumerates the following in saying: "California has no Magnolia nor tulip trees, nor star-anise tree; no so-called pawpaw (Asimina); no barberry of the single-leaved sort; no Podophyllum or other of the peculiar sssociated genera; no Nelumbo; nor white water-lily; no prickly ash nor sumach; no loblolly-bay nor Stuartia; no basswood nor linden trees; neither locust, honey-locust, coffee trees (Gymnocladus), nor yellow-wood (Cladastris); nothing answering to Hydrangea or witch-hazel, no gum-tree (Nyssa and Liquidambar), Viburnum or Diervilla; it has few asters and golden-rods; no lobelias; no huckleberries and hardly any blueberries; no Epigæa, charm of our earliest Eastern spring, tempering an icy April wind with a delicious wild fragrance; no Kalmia nor Clethra, nor holly nor persimmon; no catalpa tree nor trumpet-creeper (Tecoma); nothing answering to sassafras, nor to benzoin-tree nor to hickory; neither mulberry nor elm; no beech, true chestnut, hornbeam, nor ironwood, nor a proper birch tree; and the enumeration might be continued very much further by naming herbaceous plants and others familiar only to botanists."

The professor is in the main correct; but we have the true huckleberry, black and blue; and the true chestnut, on trees from, 100 to 200 feet high and from 4 to 6 feet in diameter and from 50 to 70 feet to the first limb; the nuts now in the market cannot be distinguished from those brought from the Atlantic States in size, form or taste.

POSTAL TELEGRAPH.—With a few exceptions, every body in this part of the country is in favor of Government taking charge of the telegraph.—[*New Age, S. F.*]

That tells pretty much the whole story. And there are no good reasons why they should not be in favor of it.

FLORICULTURE.

Flowers.

As the greatest circulation of the PACIFIC RURAL PRESS is, naturally, amongst our farmers, we do not regard a very elaborate or particular description of the rarest or most uncommon of our flowers, or floriculture, (at present at any rate), as so desirable as the pointing out to their notice (or, perhaps, rather to that of their wives and daughters, some of the more common ones), for it sometimes happens (more's the pity for it), that the farmer himself has very little, if any, taste for these brilliant, beautiful and dazzling gems, which adorn Nature's prolific and expansive brow. We shall, therefore, from time to time, only speak of those flowers and shrubs that stand most prominent as to their capacity of making a beautiful show, and of sending forth fragrance.

As to the spot for flowers, the smaller kinds, and even smaller shrubs, such as roses, dwarf honeysuckles and the like, may be planted by the sides of the broad walks in the vegetable or kitchen garden, or a little piece of ground, generally on the front of the dwelling house, may be set apart for the purpose.

In cases where farms are large, and the owners rich and independent in their circumstances, there are what are usually called pleasure grounds, large shrubs, and more lofty ornamental trees, come in. And in the placing of the whole of the trees and plants, the highest should be farthest from walks or roads. The ground, of course, must be good, well tilled and kept clean, or the plants and flowers will not be fine.

Under the head of flowers come flowering trees and shrubs; and, therefore, we must, in this place, name some of these and of ornamental shrubs. Here is a small list for a beginning: Burning Bush, (*Euonymus Europæus*)-Rose of Sharon, (*Althæ Frutex*); Red-wooded Dogwood, (*Cornus Alba*); Weigeld Roses, Deutzia Crenata, Flore Pleno, Wax Myrtle, (*Myrica Cerifera*); Pyrns Japouiea, Mist Tree, (*Rhus Cotinus*); Lilac, white and purple, (*Syringa Bulgaris*); Spircea Flore Pileno, Snow Ball, (*Viburnuno Opulus*), Laurustinus.

For the beds some of the flowers may be: Geraniums, Heaths, Hollyhocks, Pœonics, Sweet Pea, Rhododendrons, Myrtles, Lupers, Stocks, Wallflowers, Larkspurs, Jasmines, Honeysuckles, Pansies, Columbines, Cowslips, Carnations, Balsams, Verbenas, Auriculas, China Asters, Crocuses, Daisies, Hyacinths, Tulips, Jonquils, Mignonette, Passion Flowers, Pinks, Poppies, Primroses, Tuberoses, Violets, Phloxes, Begonias, Azaleas, Penstemons, Fuchsias, Coleus, American Agave, Clianthus Carneus, Japan Lilies, Roses in many varieties, etc., etc.

Farmers, and farmers' wives and daughters, do not undertake more than you can do well, nor invest more money than you can afford. We garden, in ornamental things, for pleasure, and there is no pleasure in half done work, or unwise expenditures. The true lover of flowers can obtain a heartfull of pleasure from a few small beds or plants, if this is all that circumstances will allow. Mr. Vick, the Rochester florist, says: he "has visited palace gardens, and the magnificent grounds of the most devoted lovers of rural art, and witnessed the pleasure and pride with which they viewed the beautiful landscape, in a measure the creation of their own genius, yet he never saw so much joy in any of these as was expressed in the countenances of three little girls, not long since, who had clubbed their pennies together to buy a single pot plant, and were permitted to carry it off in triumph by the good gardener, although their united purse lacked a few pennies of the required sum." How much is our happiness like this, merely relative. This fact is well worthy of our general study through life.

HOW TO SOW FLOWER SEEDS.—Making drills for small seeds is best done by pressing the edge of a lath or thin board into the previously smoothed soil. This makes a drill that is perfectly smooth at the bottom—where the seeds can be distinctly seen, and if the sowing is not properly even it can be made so, which can not well be done in a rough drill made by scratching the soil.

A LARGE FUCHSIA.—In the garden of the Knight of Kerry, at Valencia, Ireland, there bloomed the past year a fuchsia, *Ricarlorici*, whose circumference measured 124½ ft. around the extremes of the branches.

HORTICULTURE.

Culture of the Apple.

Although we have very lately written upon this particular fruit. still, npon account of its popularity, wholesomeness, and utility, we consider that it is deserving of a great deal of further notice—more particularly in our dry and warm climate, where its location has so much to do with its soundness, flavor and juiciness. We have already, in a late article, treated, in a measure, upon its location, and the qualities of the soil most suitable for it, decidedly, mostly in favor of an upland site. The apple is a gross feeder, but rather an accommodating one on the whole, even in our warm climate. It certainly will flourish well even upon varions soils and situations in our peculiar clime, but upon the very rich diluvial and alluvial deposits of our river bottoms and vast prairie-like valleys, it certainly cannot be said to do as well as we could wish. With this exception, we canuot greatly complain of its good-natured adaptability to submit well to surrounding circumstances, and flourish alike on various soils, and under a variety of conditions. But though the apple will grow in almost any soil, it undoubtedly thrives best in a deep limestone or finely disintegrated metamorphic rock-earth, of which this State has so large a portiou—the worst soil being compact clay, not only by reason of the fineness of the particles, but because the predominating alumina swells and becomes pasty when it is wet and thus prevents the passage of water through them. On this account, soils that are too compact, especially if they have been underlaid by stiff clay subsoils, are not so well adapted to orcharding as those that are more porous. This is especially true of level lands, upon which water accumulates, to the great injury of the fruit trees planted in them; but even in hilly situations, with the good natural surface draining our foot-hills generally have, the excess of clay is sometimes iudicated by a spouty condition of the surface. Plant as soon in the winter or spring as practicable. If the planting be done at all late in the spring more than ordinary care will be necessary, to the end that they may not be allowed to dry in their roots after being lifted for transplantation; aud to make the success of the planting safer, a free uso of water on the roots in the holes should be made before covering them with the earth. In planting we always dig holes twenty inches deep, or thereabout, and fill up with sod or surface soil to the surface. Ou this we plant and cover tho roots with finer surface soil, thus leaving it when finished, slightly rounded, but not so much so as that the rains may flow off; by these meaus when the soil settles to its natural level, the tree will be but just beueath the top of the ground, as a natural seedling would bo. We are particular in this, as deep plauting kills a multitude of trees.

Suggestions to Horticultural Societies.

One of the most useful labors undertaken by horticultural societies, both in Europe and America, and one perhaps, too, in which they are more successful than in many of their pursuits and objects, is the testing and permanently recording the qualities and characteristics of the different sorts of fruits, vegetables and flowers, of which numerous varieties exist in our nurseries, orchards and gardens. To say that, in the execution of these tasks, no errors are committed would be imputing to them an infallibility, to which, of course, they can have no claim; but, taking a fair ostimate of these labors in the aggregate, they must be beneficial to gardening.

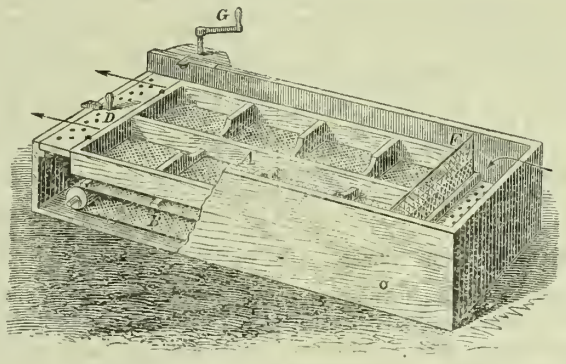
The above reflections lead us to enquire why the members of the Bay District Horticultural Society, aud those of some other similar societies of counties and cities in the interior, do not exhibit more at their meetings than they do of specimens of fruits, vegetables and flowers, to be judged by the several committees amongst them, formed for the purpose, and the results published in their minutes and reports of proceedings. By these means, too, the public would be encouraged to send in their specimens of orchardizing aud hortlcuiture to have their correct nomenclature decided by the most competent and experienced persons, as likewise the qualities and merits, and general and amateur cultivators would often be beneficially advised and instructed.

At the present time, when the rationale of gardening is pretty well understoood, when, in fact, a greater number of persons than at any former period in California know more or less of the principles and practice of gardening, nothing would prove so beneficial to the science, or of such general individual utility as a fair and honest record of the characters and qualities of all the numerous varieties of domestic fruits, culinary vegetables and ornamental flora which have sprung into existence since the fruit, vegetable and flower lists of the different horticultural societies of the world have been prepared. This our societies iu this State ought to do: for, according to the dictates of common sense and common right, the societies and the cultivators stand identified. If they do not fulfil them, they violate a sacred duty. This the societies ought to do, because they are the horticultural societies of California; because these things are essential to be done for the promotion of horticulture; because no person, uor any number of persons, can well perform such a work; and because they are supported for objects and purposes of this very kind. We hope the attention of the Bay District Horticultural Society, as well as the others, will, through the press generally, be directed to this object and that, ere long, we shall see much more good accomplished in this way than has been hitherto done.

It will, perhaps, be said that, in the case of new fruits, or vegetables, or flowers, gardeners can themselves make the trials, and reject such as are not found worthy of contiuued cultivation. But there is not one gardener in ten—no, nor one in a hundred—who has facilities for doing this, and with the great bulk of amateur cultivators it is quite out of the question.

Fig. I.

Fig. I is a spawning box, with a portion of its side removed.

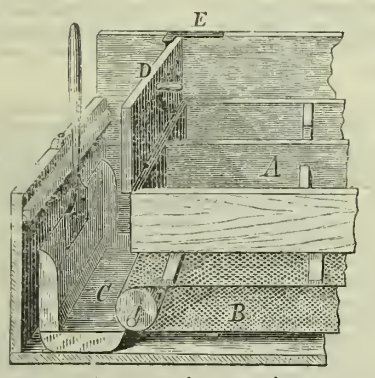


A, is a double row of coarse wire screens; B, apron of fine wire cloth; D, a screen; F, a screen.

Why, really valuable additions to our orchards and gardens only come to be generally cultivated after they have gained so extended and general commendation from those who can afford to try them, as to involve little risk iu growing them; and that little, not in respect to their general qualities, but merely their adaptation to particular circumstances aud objects. And while private gardeners cannot make the trials we are alluding to, so neither can the dealers, for their recommendations will always be open to doubt. These attend to their own interest, almost alone, too much already. The only alternative, therefore, would be for the public societies to make a general trial of all and to report fully upon all products, and to furnish, stamped with their own respectability, an authoritative standard on which all might, almost entirely, rely.

Fig. II.

Fig. II is an enlarged view of the front of the same box.



A, is a double row of coarse wire screens; B, apron of fine wire cloth; C, pan to receive the eggs; D, screen; E, catch to hold screen, D, when raised.

First, with respect to fruits. Lists should be made out from timo to time. Every known fruit should have a fair trial.

Secondly, with respect to flowers and vegetables. Lists should be prepared on the same plan as the fruits, comprising all the Societies' experience.

There is no rational objection to the plan, but the waut of inclination among the leaders of these Societies. The thing could be done, and done well too, without material expense. We commend the question to the serious consideration of those who have a voice in the affairs of the Societies. Let the Bay District Horticultural Society take tho lead in this most important mattor. It is one of the improvements certainly, we want considered much. The sooner it is commenced tho hetter.

POST OFFICE ADDRESS.—Mr. E. O. Wakeman of Modesto, Cal., wishes to learn the Post Office address of Mr. M. A. Misenhoimer, situated on the road between San José and Santa Cruz.

Fish Culture.

In continuing our remarks on the artificial culture of trout, we next speak of the plaus that have been devised for making the fish spawn naturally, in artificial races built for the purpose. One of the best of these was the invention of Hon. Stephen H. Ainsworth. It consists of a race of any length from ten to fifty feet and from two to six feet wide, according to the number of trout to be used and the amount of water to supply the pond.

For large trout the water should he two inches deep at the upper or supply end, and fifteen inches at the lower end where it empties into the pond, with a gentle current its whole length. This will give good spawning depth to the water for trout of all sizes from six to twenty-four inches long. A race only three feet wide and from fifteen to twenty feet long, will be ample for a pond of one thousand or eighteen hundred trout.

To the bottom of the race are fixed fine wire cloth or screeus, a finer and a coarser one, for the spawn as it is deposited by the parent trout, to fall through; but which cannot be well described for want of space in our columns, nor can their management be made plaiu without suitable engravings. We must refer the reader therefore to the popular works of the day on this subject.

Our object in speaking of this invention is to contrast it with a greatly improved one, The Ainsworth races, though answering perfectly in making tho fish spawn naturally, are nevertheless attended in their management with considerable labor and exposure. This latter objection was ingeniously surmounted by Mr. A. S. Collins the partner of Seth Green, the famous fish culturist of New York, in a modification of the Ainsworth races, known by the name



of the Roller Spawning Box. We give a description in part as written by the inventor:

ROLLER SPAWNING BOX, FOR TAKING THE NATURALLY IMPREGNATED EGGS OF BROOK TROUT, SALMON, ETC. (PATENT OF A. S. COLLINS.)

In the Roller Spawning Box, the principle used is that of the Ainsworth screens, and the improvement consists in a new and convenient method of collecting the eggs. A double row of coarse wire screens (three meshes to the inch, eight iu number, each two feet square, are put together in one frame, eight feet by four. These screens are to be filled with coarse gravel, and the eggs pass through as in Ainsworth's screens. Under these is an endless apron of fine wire-cloth, passing over rollers at the two ends of the box. This aprou is about one iuch beneath the upper screen, and is kept from sagging by small cross-bars, corresponding to the division of the upper screen.

These cross-bars are supported by, and, when the rollers are turned, slide on, an inch-square strip nailed to the side of the box. A similar strip, one inch above, supports the largor screens.

The cross-bars also keep the eggs from beiug carried down by the current. By using two small bevelled cog-wheels the front roller can be turnod by a handle. As the roller is turned forward, the endless apron moves with it, and the eggs, as they come to the edge of the roller, will fall off. The pan is placed in front of the roller, and receives the eggs as they fall. The box need not be more than two feet deep; the depth depending upon the size of the rollers, which in a short race may be quite small, and the box not more than eighteen inches deep. The box is set directly in the raceway, and intended to fill it completely. The water may either enter with a fall over the top of the box, or the top of the box may be cut down until the water will enter on the level at which it is intended to stand over the screens.

A screen, intended to prevent the fish from running beyond the race or getting into the lower part of the box, may extend to the bottom, or be arranged differently; a screeu placed at the front of the box is also intended to prevent the fish from getting below. When the eggs are to be taken, this screen is raised on hinges to au upright position, and confined hy a spring catch or latch. This confines the fish which may happen to be iu the race, and none of them can get below. The pan is then lowered to its position, the roller turued, and the eggs taken. When the operation is finished the screen is again lowered, the button turned, and the work is done.

A concise and greatly extended description of these spawning boxes and the way to use them can be found in a new work entitled Domesticated Trout, how to Breed and Grow Them, by Livingstone Stone, A. M. For sale by A. Roman & Co., S. F.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Feb. 11th, 1873.

FOR WEEK ENDING JANUARY 28th, 1873.*

FILTER.—Prosper Huerne, S. F., Cal.

CULTIVATOR.—Amos B. Colver and John Priest, Albany, Oregon.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

CALIFORNIA WINE GROWERS AND WINE AND BRANDY MANUFACTURERS' ASSOCIATION. — The above Association, at its meeting on the 20th ult., determined, for the benefit of the wine growing interests of this State, to make a creditable exhibition of their wines and brandies at the World's Fair to commence at Vieuna, Austria, on the 15th day of April next, and appointed Jules Dressel, of Sonoma—a most competent person—as a Commissiouer to attend said Fair to exhibit their contributions and represent their interests generally.

A competent Committee to examine any contributions and select only such as will be a credit to send, was appointed.

RAMIE ON TWITCHELL ISLAND.—We learn that John Finch, of Alameda county, has entered into contract with George D. Roberts to set out 200,000 ramie plants on Twitchell Island in the San Joaquin, in the neighborhood of Antioch. Twitchell Island contains about 4,000 acres, and is one of the most beautiful of the group of islands forming the delta of the Sacramento and San Joaquin rivers. A levee has been constructed all around it, and it has been thoroughly reclaimed. The soil of the island is a peat bed, and fertile beyond all calculation. It is capable of producing and has produced 80 bushels of wheat to the acre, and then yielding a second crop of corn or potatoes the same year.

SALE OF THOROUGHBRED STOCK.—As will be seen, by reference to our advertisiug columns, Moses Wick, near Oroville, Butte county, proposes to sell his entire herd of thoroughbred short-horn Durham cattle at auction, on the 11th day of April next. Here is a rare opportunity for those who wish to improve the breed of their cattle to do so by buying some of the young bulls here to be sold. According to the awards of premiums at the last State Fair, Mr. Wick's cattle stood at the head of tho Durham herds in the State.

THE LANGUEDOC ALMOND.—This fruit, with the wide world for a market, and worth as much to-day as twenty or forty years ago, and a demand increasing faster than the supply, and a fruit whose keeping quality is excelled by none other, is among those that should receive the first care of fruit culturists. We have an advertisemont in our columns this week of Brier's Languedoc Almond trees, well worthy the careful attention of almond-growers.



Bread Upon the Waters.

An Incident of California Life.

In the summer of 1850, while on a prospecting tour in the mining regions, I met with the following little incident, which may be worth relating, and which at least has the merit of being true in every particular. The country in those days was very thinly populated, and the miners principally lived in tents, lumber being exceedingly scarce and very high in price. While I was passing along in a lonely part of the country, I saw a tent in the distance, and wishing to obtain some information in regard to the diggings in that locality, I approached it. The owner was engaged in sweeping out the interior with a rude broom made of twigs, and did not notice me until I was within a few feet of him. Everything about was scrupulously clean and in marked contrast with the appearance of miners' habitations generally. I shall never forget the pitiful appearance the man presented, As near as I could judge he was about six feet four or five inches in hight, but a perfect living skeleton. I remarked: My friend, you appear to be very sick—too sick to be engaged in such unimportant business as sweeping." He replied that he only had a few more days to live, and that he liked to see things look neat during that time. I inquired his ailment, and he told me he had the chronic diarrhœa and as yet had found nothing to afford him any relief. I recommended a preparation that I had long known to be very efficacious in disorders of that nature; but he was out of money and said he was too weak to get the ingredients even if he had the means, as the nearest camp of importance was six miles distant. I told him that he should not suffer as long as it was in my power to assist him; that I still had about two ounces of dust left, and that I would place it all at his service if necessary.

I easily procured all the ingredients but one, and that was the white of eggs, which for a long time I found it impossible to obtain. Finally I learned that there was an old woman, a native Californian, who lived five miles away in a contrary direction from where I obtained the other articles, and that she had but one hen. I called upon her, and having some little knowledge of Spanish, I prevailed upon her to sell two eggs, which she did very reluctantly, charging me FIVE DOLLARS for them. It must be remembered that in those days, flour, sugar and many other articles brought from seventy-five cents to one dollar per pound, while eggs, as an article of diet, were entirely out of the question.

Upon my return I gave my patient his medicine, and having chopped him a considerable supply of wood, and baked him enough bread to last a couple of weeks, I remained for several days, until I found his condition begnn to improve, when I left him, receiving many warm expressions of gratitude on my departure.

About eighteen months afterwards, having had bad luck in mining, I went to Knight's Ferry, and having had some little experience in pounding iron, I opened a blacksmith shop, and commenced sharpening picks for a living. One day, while at work at the anvil, a man of gigantic stature passed the door, and as he did so our eyes met. He retraced his footsteps, entered the shop, and inquired if I would sharpen his pick. I replied in the affirmative, but noticed that it was in very good order, and needed but little improvement. After the job was completed, he inquired my charge. I told him seventy five cents per point, or one dollar and fifty cents for the two. Drawing forth a large buckskin purse, he handed me a number of coarse pieces of gold—the smallest of which would amount to many times the price of the work. I asked him what he meant. He replied:

"I want you to put it in your pocket."

I was much surprised, and began to think my customer insane. I told him I was only entitled to a dollar and a half.

"I don't care what your charge is, I want you to put it in your pocket," said he.

I was about to object again, when he said—

"Why! don't you remember me?"

I told him no; that, to my knowledge, I never saw him before.

"Why," said he, "don't you remember curing a man of the diarrhœa, near Yorktown, about eighteen months ago?"

I said "that I could not say I cured any one, but that I had prescribed for a man so afflicted; but you are not the individual?"

"Yes, I am," he replied, "and had it not been for you I would now be in my grave."

I was unable to recognize my former patient in the man before me—a perfect Hercules as he seemed—and I told him if such was the case, I could not think of accepting such a liberal reward, as my entire outlay at that time was only about eighteen dollars, and that my time I would not count for; that I was abundantly compensated by the fact that I had been instrumental in aiding his recovery, and that I would only accept an ounce in payment of actual expenses incurred. He replied—

"Look here, my friend, I don't want to be severe with you, but if you don't pocket that dust, you and me will have a fight."

Upon which I surveyed from him head to foot, as if I were calculating the chances, and told him that I would rather pocket his dust than to fight him any day. After which he gathered up his mining implements, and bidding me good bye, left for parts unknown. I then weighed the gold, and found there were thirty-six ounces, which at seventeen dollars per ounce, amounted to six hundred and twelve dollars.

How to Beautify Your Homes.

The first condition of success in furnishing either a large or a small room is that there must be no overcrowding. This is absolute. When ontline is lost, beauty, as a matter of fact, is lost also. We must all know many drawing rooms in which, perhaps, the worth and beauty of each individual thing is indisputable; on entering the first thing that strikes one is a sense of incongruity. What might have been an art collection is degraded to the level of an old curiosity shop. Most women are born with a love of beauty. But, generally, unless this love is cultivated and trained, it runs to waste and fritters itself away upon small things.

Women go into a shop and hover over a counter for an hour, engrossed in the purchase of fifty minute things, each one of which is pretty in itself if taken up in the hand and inspected; but not one of which can be clearly defined at a distance of two yards, and not one of which repays the trouble of minute inspection. These are packed away in shiny cabinets that are blazing with ormolu scroll work on spindle legged what-nots that seemed to be designed for no other earthly purpose than to be knocked down at brief intervals, and on mantle pieces that confuse one's vision and muddle one's brain during the long periods when the need of being near the fire forces one to face them.

It is a better and higher system of economy to buy two or three good bronzes or marbles on which the eye can always rest with pleasure, than to spend ten times the sum on a heterogeneous mass of the parti-colored rubbish which may accumulate, "in order," they call it, "to take off the naked look of their room." Better the naked look ten thousand times than the false decorations.—*Ex.*

LOVE OF THE BEAUTIFUL.—Place a young girl under the care of a kind-hearted, graceful woman, and she, unconsciously to herself, grows into a graceful lady. Place a boy in the establishment of a thorough-going, straightforwhard business man, and the boy becomus a self-reliant, business man. Children are susceptible creatures, and circumstances and scenes and actions always impress. As you influence them, not by arbitary rules, nor by stern example alone, but in a thousand other ways that speak through beautiful forms, pretty pictures, &c., so they will grow. Teach your children, then, to love the beautiful. If you are able, give them a corner in the garden for flowers; allow them to have their favorite trees; teach them to wander in the prettiest woodlets; show them where they can best view the sunset; rouse them in the morning, not with the stern, "Time to work," but with the enthusiastic, "See the beautiful sunrise!" Buy for them pretty pictures, and encourage them to decorate their room in his or her childish way. Give them an inch, and they will go a mile. Allow them the privilege, and they will make your home pleasant and heantiful.

WHEN THE TIME COMES.—Don't tremble at the thought of death; don't think of the parting, when human ties are broken, and therefore separation must take place; think of the meeting; think of the reception; think of the Master, of the glory; think of the bourn to which you are going, and of the new ties and hopes and loves and joys and delights that are treasured for you there.

Social Lubricators.

When the train is stopped, you shall see the engineer spring off from the locomotive, and with his long-necked can, oil the machinery at every point, so that the oil shall run in at all the joints. We look at him and at the engine, and admire them. But we never say a word to the oil, or about it. And yet the engine and what it does by its strength are largely dependent upon the lubrication which the oil brings.

Now, there are lubricators among men, who keep the machinery of society oiled, so as to prevent its joints from wearing, and its journals from heating. He is a benefactor who introduces great improvements in the processes of society; but there are men who prevent the friction which would otherwise be produced by its working. Such a man I consider one who is thoroughly good-natured. A man who carries a disposition that is characterized by thorough good-nature, tends to make others good-natured. Other people take from us what we carry to them; and if you go in an irritable mood to your breakfast, you will probably find another person who is irritable over against you; and the irritability will be there because you carried it. If you are cold, those around you will shiver. If you are good-natured, men will be apt to know it, and to respond to your good-nature. Men are as much perceived that carry good-nature in society as spice-wood is that carries sweet odors. God bless good-natured men, and multiply the number of them! There is no danger of there being too many men who are not easily irritated, who look on the bright side of things, and who tend to solace—men that you can cushion on, and not touch the hard angles of an exacting, contentious spirit—men who, in ship, or house, or store, or shop, are so sweet that they suggest the more genial, the kindlier aspects of human life.

I would not have all the world good-natured. I would not have good-nature to be the only and supreme grace; and there is no danger of its being so—not the least. But where there are so many other sterling qualities, we need lubrication. And blessed are they that move around about in society so as to lubricate it.—*Henry Ward Beecher in Plymouth Pulpit.*

HAPPINESS AN ESSENTIAL TO BEAUTY.—Do not think you can make a girl lovely if you do not make her happy. There is not one restraint you put on a good girl's nature—there is not one shock you give to her instincts of affection or effort—which will not be indelibly written on her features with a hardness which is all the more painful because it takes away the brightness from the eyes of innocence, and the charm from the brow of virtue.

The perfect loveliness of a woman's countenance can only consist in that majestic peace which is founded in the memory of happy and useful years—full of sweet records; and from the joining of this with that yet more majestic childishness, which is still full of change and promise, opening always—modest at once, and bright with hope of better things to be won, and to be bestowed. There is no old age where is still that promise—it is eternal youth.—*Ruskin.*

FAMILY GOVERNMENT.—The chief difficulty in family government arises from the fact that so few parents ever learn to govern themselves. It was said of old that "he who ruleth his own spirit is greater than he who taketh a city." The fact is, that the ruling of his own spirit is about the last accomplishment ever arrived at by mortal man; and the remark is equally true as to mortal women. Hence, the government of children is poor enough, as a general thing. In fact, it is, in many cases, no government at all, but simply the venting of some father's, or mother's, or teacher's spite upon a child that has done something to stir up the evil passions of one's nature. Some say that the more they punish their children the worse they seem to grow. That may very well be, if parents punish them because they are annoyed or angered at something they have done. A parent should never punish a child when he is the least bit "put out" with it, or for any reason whatever except the highest good of the child itself.

HOUSEHOLD LABOR.—Now, what return does the farmer's wife asks for all this toil and labor? The love and respect of her husband and children. On the other hand, who lives more independent than she? Her children rise up and call her blessed; her husband also, and he praiseth her—and is that not the highest meed a true woman asks for? She is never troubled about the dressmaker or washerwoman; is not anxious about her new spring bonnet, for last winter's bonnet will do very well for her; she dons a fresh calico dress (with clean collar and cuffs), and then, knowing that she has done her best, never bestows a thought as to how she looks; she makes the very best possible use of what little education she has and will converse with you pleasantly and intelligently on many things—and I ask: Who has reared some of our most useful men of the present day? The farmer's wife; yes, sir, the farmer's wife, all honor to her I say.—*Betsy Jane, in Rural World.*

SOMEBODY, who writes more truthfully than poetically, says: "An angel without money is not thought so much of now-a-days as a devil with a bag full of guineas."

Young Folks' Column.

The Boys.

There come the boys! O dear, the noise,
The whole house feels the racket;
Behold the knee of Harry's pants,
And weep o'er Bertie's jacket!

But never mind, if eyes keep bright,
And limbs grow straight and limber;
We'd rather lose the tree's whole bark
Than find unsound the timber!

Now, hear the tops and marbles roll!
The floors—O woe betide them!
And I must watch the banisters,
For I know boys who ride them!

Look well as you descend the stairs,
I often find them haunted
By ghostly toys, that make no noise
Just when their noise is wanted.

The very chairs are tied in pairs,
And made to prance and caper;
What swords are whittled out of sticks!
What brave hats made of paper!

The dinner-bell peals loud and well,
To tell the milkman's coming;
And then the rush of "steam-car trains"
Sets all our ears a humming.

How oft I say, "What shall I do
To keep these children quiet?"
If I could find a good receipt,
I certainly should try it.

But what to do with these wild boys,
And all their din and clatter,
Is really quite a grave affair—
No laughing, trifling matter.

"Boys will be boys"—but not for long;
Ah! could we bear about us
This thought—how very soon our boys
Will learn to do without us.

How soon but tall and deep-voiced men.
Will gravely call us "Mother,"
Or we be st etching empty hands
From this world to the other!

More gently we should chide the noise,
And when night quells the racket,
Stitch in but loving thonghts and prayers
While mending pants and jacket!

I CANNOT PRAY FOR FATHER ANY MORE. A child knelt at the accustomed time to thank God for the mercies of the day, and pray for his care through the coming night. Then, as usual, came the "God bless dear mother and——"

But the prayer was stilled, the little hands unclasped, and a look of sadness met the mother's eye, as the words of hopeless sorrow came from the lips of the kneeling child, "I cannot pray for father, any more."

Since her little lips had been able to form the dear name, she had prayed for a blessing upon it. It had followed close after mother's name. But now he was dead. I waited for some moments and then urged her to go on.

Her pleading eyes met mine, and with a voice that faltered, she said:

"O mother! I cannot leave him all out; let me say, 'Thank God that I had a dear father once; so I can still go on and keep him in my prayers.'"

And so she still continues to do, and my heart learned a lesson from the loving ingenuity of my child. Remember to thank God for mercies past as well as to ask blessings for the future.—*The Christian.*

OLD AGE.—Beautiful is old age, beautiful as the slow-drooping mellow autumn of a rich, glorious summer. In the old man, nature has fulfilled her work; she loads him with her blessings; she fills him with the fruit of a well-spent life; and surrounded by his children and his children's children, she rocks him softly away to the grave, to which he is followed with blessing. God forbid that we should not call it beautiful. It is beautiful, but not the most beautiful. There is another life, hard, rough, and thorny, trodden with bleeding feet and aching brow, the life of which the cross is the symbol; a battle which no peace follows this side of the grave; which the grave gapes to finish before the victory is won; and, strange that it should be so, this is the highest life of man. Look back along the great names of history; there is none whose life has been other than this.

A BOY'S IDEA OF A FARM.—We take your paper and like it very well. I like to read the boys' and girls' letters. I live on a farm, and work hard; I like it very well. One of the *Rural* boys asked for the opinion of some of us about living on a farm or going to a city to learn a trade. I say live on a farm, where you can raise hogs, and poultry and cattle, and have many nice pets and all sorts of things that are nice. I used to live in a city, and used to like it very well, but since we have been living on a farm I like it much better. We lived in Illinois, but we wanted to live on a farm, so we moved South to Mississippi.—*H. Stuart, in Rural New Yorker.*

BREAKING THE COMMANDMENTS.—A clergyman wished to know whether the children of his parishioners understood their Bibles. He asked a lad, whom he found one day reading the Old Testament, who was the wickedest man.

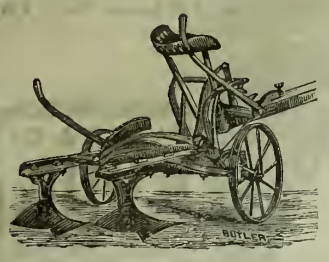
'Moses, to be sure,' said the boy.

'Moses!' exclaimed the parson 'how can that be?'

'Why, said the lad 'he broke all the commandments at once.'

Agricultural Implements.

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

Hill's Patent Eureka Gang Plow.



The following are some of the reasons why these Plows, are entitled to preference over any other Plow in use. They are made of the best material, and every Plow warranted. They are of light draught, easily adapted to any depth, and are very easily handled. They will plow any kind of soil, and leave the ground in perfect order.

FIRST PREMIUMS!

These Plows have taken First Premiums at the State Fair, at the Northern District Fair, at the Upper Sacramento Valley Fair, and the State Agricultural Society Premium of $40 for the best Gang Plow, after a fair test and competition with the leading Plows of the State.

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Took the First Premium over all competitors at the State Fair, 1871. It furrows 14 in. deep and 24 wide.

This Gang Plow combines durability with cheapness, being made entirely of iron by experienced workmen, of the best material. Over three hundred are now in use, and all have given entire satisfaction.

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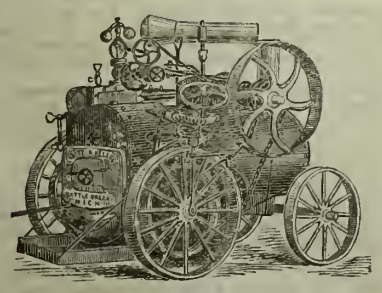
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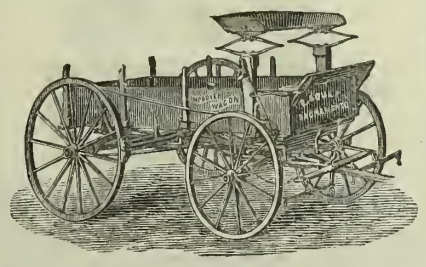
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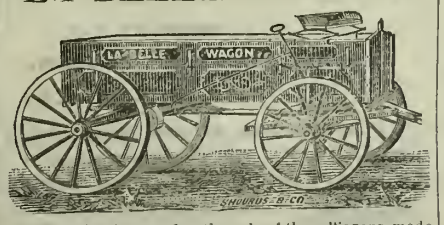
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Orders from the Country will receive prompt attention, and Price Lists sent on application.

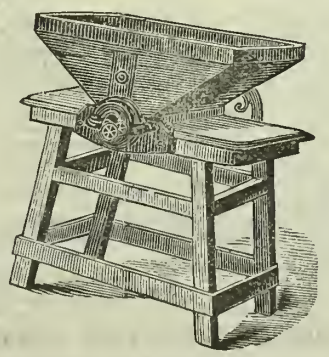
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Belonging to R. M. SPARKS, of Marysville,

Consisting of Five (5) Bucks and Seven (7) Cows and Heifers; also, Twenty-five Berkshire Pigs from four to six months old.

Pedigrees of the above stock guaranteed.

Seven months credit on notes with approved security will be given. Interest, 1 per cent. per month.

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I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

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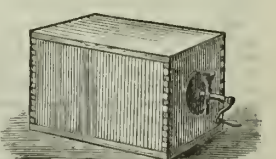
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☞ Patent applied for.
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California Hops in New York.

Under date of Jan. 18 it was said of the hop prospect of New York, that, the market continues very strong, although the arrivals have been large from abroad. California are quoted at 60 and 70 cents.

Emmet Wells' weekly circular says: "The heavy arrivals from Europe this week have caused a somewhat tamer feeling in our market. While there is no perceptible giving away in prices, it is found more difficult to effect sales at last week's rates. The slight depression is considered only of a temporary nature, as any material falling off of importations would soon bring about a stronger feeling in the market. The supply of America is wholly inadequate to the current requirements of our brewers, and without a pretty liberal weekly supply from abroad, our boards would soon become cleared of everything remaining of the last growth. We note the arrival this week of a consignment of the renowned California growth of hops known as the 'Willow Grove' growth, consisting of 186 bales. The hops are consigned to Messrs. Platt & Newton, of this city, and placed in our hands for sale. We expect to realize a fancy price for this lot of goods, as there is nothing in market of either foreign or domestic growth which will begin to equal it in quality.

In the foregoing we simply have a corroboration of what we have often intimated, that we can produce better hops than the world knows of elsewhere, unless some other country where they raise hops, has a climate similar to ours. Perfect immunity from summer rains, and in many places no dew in the night time; consequently no mildew, rust or any other injury incident to moisture day or night, before or after the crop is gathered.

A large, brighter and more beautiful flower, possessing more of the peculiar aroma and strength that gives to the hop its highest value are among the results of culture in our hot and rainless summers. But is it right to raise them, along with grapes and wheat and barley and molasses from sugar cane when they are known to be used for making intoxicating drinks?

Meeting of the California Farmers' Union.

A meeting of this organization has been called in San Francisco, April 9th, 1873. feb18-tf

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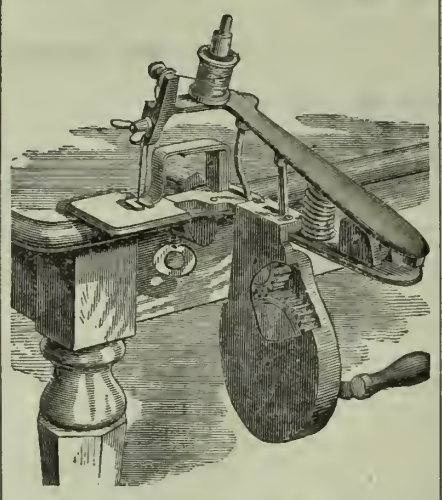
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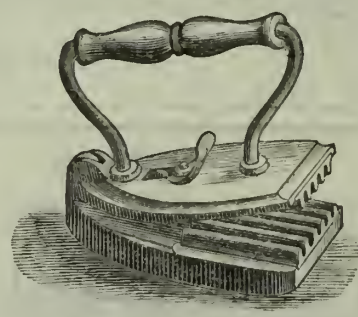
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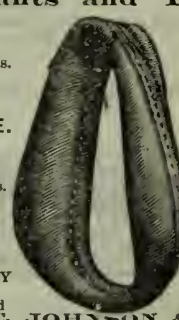
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S, F. and Liverpool Average Prices of Wheat.

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡—Average monthly decrease.

¶—The difference here noted is that between the average price of average shipping wheat in S. F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873	SAN FRANCISCO.								LIVERPOOL BY TEL.				
DATE.	COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	CALIFORNIA AVERAGE.	CALIFORN A CLUB.	DIFF.¶
Jan 13	1 32½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	3 03 @3 05	3 19 @3 23	1 01½
14	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	2 97 @3 01	3 05 @3 11	96½
15	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	..	2 97 @3 01	3 05 @3 11	96½
16	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	..	2 97 @3 01	3 05 @3 11	95½
17	1 82½@1 92½	....	2 00 @2 10	*2½	2 10 @— —	*5	3 03 @3 05	— — @— —	99
18	1 82½@1 92½	....	2 00 @2 10	....	2 10 @— —	....	3 03 @3 05	— — @— —	99
20	1 82½@1 92½	....	2 00 @2 10	....	2 10 @— —	....	3 03 @3 05	— — @— —	99
21	1 82½@1 92½	....	2 00 @3 10	....	2 10 @— —	....	3 05 @3 09	— — @— —	1 02
22	1 82½@1 92½	....	2 00 @2 05	†2½	2 00 @2 10	†5	3 05 @3 09	3 15 @3 23	1 04½
23	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	3 05 @3 09	3 15 @3 23	1 04½
24	1 80 @1 90	†2½	1 90 @2 00	†7½	2 00 @— —	†5	3 03 @3 07	— — @— —	1 10
25	1 80 @1 80	....	1 90 @2 00	....	2 00 @— —	....	3 03 @3 07	— — @— —	1 10
27	1 80 @1 90	....	1 90 @2 00	....	2 00 @— —	..	3 03 @3 07	— — @— —	1 10
28	1 80 @1 90	....	1 90 @2 00	....	2 00 @— —	....	— — @— —	— — @— —	....
29	1 75 @1 85	†5	1 90 @1 95	†2½	1 90 @2 00	†5	3 00 @3 03	— — @— —	1 09
30	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	3 00 @3 03	— — @— —	1 09
31	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07 @3 19½	1 07½
Feb. 1	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07 @3 19½	1 07½
2	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07 @3 19½	1 07½
4	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07 @3 19½	1 07½
5	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 96 @2 99	3 05 @3 18½	1 05½
6	1 60 @1 85	†7½	1 90 @1 92½	†1¼	1 90 @1 97½	†1¼	2 96 @2 99	3 05 @3 18	1 06¾
7	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 97¼	....	2 96 @2 99	3 05 @3 18	1 06¼
8	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 86 @2 93	3 05 @3 18	1 05¼
10	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 95 @2 99	3 05 @3 18	1 05¼
11	1 60 @1 80	....	1 90 @1 92½	....	1 90 @1 92½	....	2 92 @2 97	3 05 @3 18	1 03¼
12	1 60 @1 80	†7½	1 85 @1 90	3¾	1 85 @1 90	2¾	2 92 @2 97	3 09 @3 23	1 03¼
Extreme advance.	....	.....	.....	....	.....	....	.....	.....	.....
Extreme decline	22½	.....	.....	15	.....	20	.....	.....	.....

Comparative Prices of Wheat.

1872	S. F.	LIVERPOOL.		DIFF. BET.	
	SHIP.	TELEGRAPH*	MAIL.†	S. F. and Teleg'h.	Mail and Teleg.
Nov 29	1 65	3 03@3 22‡	3 01@3 30	1 47½	3
Dec 3	1 72	2 91@3 17‡	2 99@3 23	1 42	7
6	1 75	2 91@3 03	2 97@3 19	1 22	12
10	1 85	2 91@3 01	2 76@3 03	1 11	4
13	1 95	Not given.	2 97@3 05		
17	1 95	2 91@3 01	2 99@3 21	1 11	14
20	1 95	2 95@3 01	2 99@3 21	1 11	11
24	1 95	2 95@3 01	3 03@3 22	1 11	11
27	1 92½	2 95@3 01	3 05@3 06	1 13½	11

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of said Associated Press Average California Wheat. In a few instances Club are given. These we have noted by the mark ‡, except on the 20th of December, when Club was quoted at $3.17, and the difference between the average of the hi hest quoted of Club and the lowest quoted of average by telegraph to the Merchants' Exchange, and the prices quoted in the *Mark Lane Express* was four cents.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—Telegraphic quotations of Club wheat.

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express," In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday M., Feb. 12th, 1873.

The past week has been a very unfavorable one for most kinds of Domestic Produce, and in this respect has been but a counterpart of the preceding. However, we have nearly done with the past season, and all the bopes of our farmers are being concentrated on the new. The rain of the past week renders the prospect of another b untiful harvest almost certain.

RECEIPTS.—Receipts for the past week have been light, though somewhat in excess of the previous one. Wheat and Flour have been in excess, the former double; Barley has fallen a little behind; Oats has been about one-fifth of the previous week, but we have received two large cargoes from Oregon. Middlings have been in excess; the receipts of Bran have been more than one-half less; Potatoes about two-thirds; Hides one-sixth; Hay has been in excess; Wool only 22 bales were received, and the receipts of Wine were than doubled.

We summarise receipts of Bay Produce to date as 1,600 quarter sacks of Flour, 168,572 centals of Wheat, 4,828 do of Barley, 114 do of Oats, 783 do of Middlings, 674 do of Bran, 2,321 do of Potatoes, 638 do of Onions, 474 Hides, 45 bales of Hops, 18 do of Cotton, 22 do of Wool, 590 tons of Hay, 26 do of Straw, 7 do of Salt, 10 bales of Chiccory, 38,200 gallons of Wine, 10 centals of Beans and 160 barrels and 36 half barrels of Beet Sugar.

Receipts of Wheat at Oakland Wharf are falling off, being only 25,800 centals or 129 car-loads last week.

The steamers from Oregon brought us 40 sacks, 3,835 half sacks and 11,132 quarter sacks of Flour, 3,484 centals of Oats, 657 do of Potatoes, 460 Hides and 27 packages of Salmon.

By steamers, etc., from coast ports we have received 2,916 centals of Wheat, 8,156 do of Barley, 127 do of Oats, 11,767 do of Potatoes, 97 do of Mustard Seed, 356 Hides, 2,455, centals of Corn, 160 do of Corn Meal, 21 do of Castor Beans, 17 bales and 5 bags of Wool, and 71 pipes of Wine. Tomales sent the Oats, Santa Cruz the Mustard, San Diego the Corn Meal, the Castor Beans and the Winc, the Wool came from San Diego and Point Otsego, all the Corn save 69 ccntals from Huenema; the Hides principally from San Diego and Huenema, three-forths of the Potatoes from Humboldt, the balance being from Santa Cruz and Tomales, one-half the Barley from Huenema, one-third from Santa Cruz and the balance from San Luis Obispo, and the wheaf nearly all from Santa Cruz.

BARLEY.—Barley has been weak since our last, the comparatively large quantities received during the last month having more than supplied the wants of the market. We quote sales of 1 800 sacks of Ooast feed at $1.20, 1,400 do at $1,25, 300 do Choice feed at $125 to $1.27½, and 130 of Bay feed at $1.30.

FLOUR.—Flour has remained unchanged since last week. Exports have includcd 20 barrels, 14,847 half sacks, and 9,073 quarter sacks to New York, Panama, Central America, and Guayaquila, Ecuador. The latter is a new market.

HAY.—Receipts chiefly of Wild Oat come in but slowly. We note sales of a few cargoes at $15 to $18 per ton, and 25 tons of Wild Oat at $16 to $18.

HOPS.—Receipts are very small. We note sales of 30 bales at 42½ to 45c. In the New York market, California Hops take the lead bringing from 60 to 65 cents, two-thirds higher tban any other brand.

OATS.—Oats may be quoted at about the same figures as last week. The market would be stiffer, but for receipts of over three thousand centals of Oregon during the week. We note sales of 1,200 sacks of Oregon at $2.15 to $2.20; 100 do of fair California, at $2.10; 200 do at $2.12½; 100 do of good Coast, at $2.15 and 200 do of Oregon at $2.20.

POTATOES.—Receipts are much larger than those of last week, and the market continues depressed. We note sales of 200 sacks of Tomales at 80 cents, 850 do of Petaluma at 70c to 90 c, 600 do of Bodega at 70c to 85c, 250 do of Point Arenas at $1 and 2,400 do of Humboldt at 90c to $1.10.

WHEAT.—Receipts last week fell very short of those of preceding weeks, but exports were again very large. The truth is that the supplies of Wheat are becoming exhausted in the interior, and that we must expect light receipts for some time to come. Freights have remained unchanged for the past two weeks, but as we have tonnage sufficient to carry away 1,400,000 centals in our harbor, and that three-fourths of it is already engaged for Wheat, the presumption is that freights must soon recede. Associated Press and Merchants' Exchauge telegrams quote: California Avcrage Wheat in Liverpool at $2.91 to $2.95 and California Club at $3.07 to $3.21, a fall of 4 cents on Average and ¾ cents on Club. In this market Wheat has receded fully 10 cents during the week. We note sales of 1,200 sacks of common at $1.60, 500 do at $1.65, 3,000 do at $1.70, 2,000 do of fair at $1.85, 10,000 good to choice shipping at $1.92½, 5,000 do choice milling and shipping at $1.95 and 1,800 do choice milling at $1.97½.

Exports have iucluded per "Coloma" to Cork, 26,208 centals; per "Andis Emma" to Liverpool, 15,710 do; per "Harvest Queen" to Liverpool, 43,565 do; per "Caripale" to Liverpool, 38,244 do; per "Oithona" to Liverpool, 43,726 do; per "Brazos" to Liverpool, 29,845 do; per "Armin" to Cork, 25,103 do; and per "Monmouthshire" to Liverpool, 36,727 do., being a total of eight cargoes, aggregating 259,128 centals of the value of $528,110.

WOOL.—The market is very dull. We note sales of about 50,000 pounds of Fall at current rates.

GENERAL MERCHANDISE.

The past week has been a busy one, botb in our import and export tradc. We have received from Bordeaux, the "Andre," and from Marseilles, the "Sophia" both witb large cargoes of Wines, Preserves, Almonds, etc.; the "Nautilus," from Tahiti, w th a cargo of Fungus, Beche de Mer, Cocoanuts and 24 bales of Cotton; the "Moneymick," from Hong Kong, witb Tin, Gin, Matting and Rice, and several vessels besides loadcd with Coal and Lumber. Exports have aggregated a valne of $640,500 of merchandise and $1,856 of treasure, carried in 11 vessels. The "Zephyros," to Guaysquil carried a cargo of Flour and 282,224 pouuds of Rice, and 15,807 pounds of Sugar—tbe openiug of a trade witb the Republic of Ecuador. The "Montana" has carried to New York, amongst other things, 644 sacks of Mustard Seed, 1,978 Hides, 2,558 gallons of Brandy, 4,240 do Wine, and 3,649 do of Whale Oil, and to Panama 39,900 pounds of Rice, 48 tons of Soap Root and 3,305 pounds of Tea.

Iron is going up again. Pig is now $36 per ton in Scotland, and it has risen $5 per ton here within a few days. Coal is quiet; Canned Goods are dull, so also is Lumber; the trade in Salmon is very slow; the demand for Spice is but light, and the market is good for Oils and Sugar.

Leather Market Report.

[Reported for the Press by Dolliver & Co.]

SAN FRANCISCO, Wednesday, Feb. 12, 1873.

The price of sole leatber continues the same. French stocks have advanced 5 per cent., and importers are firm in their prices.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$60 00@
Jodot, 11 to 13 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz.	55 00@ 70 00
Lemoine, 16 to 18 Kil., ₱ doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 16 to 19 Kil., per doz	63 00@ 65 00
Cornellian, 12 to 14 Kil., per doz	56 00@ 60 00
Cornell an Females, 14 to 16 Kil	65 00@ 70 00
Ogerau Calf, ₱ doz	54 00@
Simon, 18 Kil., ₱ doz	60 00
Simon, 20 Kil. ₱ doz.	65 00
Simon. 24 Kil. ₱ doz.	72 00
Robert Calf, 7 and 8 Kil	35 00@ 40 00
Frencb Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	55 00 to 70 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leatber, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	18@ 23
Wax Side Leather, ₱ foot	20@ 22
Eastern Wax Leather	26

DOMESTIC PRODUCE.

Wednesday M., Feb. 12, 1873.

BEANS.			
Beans sm'l w'ite	3¾@	—	
do, butter	4¾@	—	
do, large, do	4¾@	—	
do, bayo	3¾@	—	
do, pink	4½@	—	
do, pea	3¾@	—	
BROOM CORN.			
Per ton	$40@120		
DAIRY PRODUCE			
Butter, Cal. fresh	45	@	—
do, ordin'y roll	35	@	—
do, choice	45	@	47
do, new firkin	—	@	—
do, packed	—	@	—
do, New York	25	@	32½
Cheese, Cal new	15	@	—
do, Eastern	14	@	—
Eggs, Cal. fresh	35	@	—
do, Oregon	—	@	—
do, Eastern	—	@	—
FEED			
Bran per ton	20 50	@	—
Middlings	27 50	@30	00
Hay	17 00	@22	50
Straw	11 00	@	
Oil cake meal	30 00	@	—
Corn Meal	$40 00	@60	—
FLOUR			
Alviso Mills, bbl.	4 25	@5	00
California	4 25	@6	00
City Mills	4 50	@6	00
Commer'l Mills	4 50	@6	00
Golden Gate	4 50	@6	00
Golden Age	4 50	@6	00
National Mills	4 50	@6	00
SantaClaraMills	4 50	@6	00
Genes e Mills	4 50	@6	00
Oregon	4 50	@6	00
Vallejo Star	4 50	@6	00
Venus, Oakland	4 50	@6	00
Stockton City	4 50	@6	00
Lombard, Sac	4 50	@6	00
FRESH MEAT.			
Beef, fr quality	9	@	—
do, second do	7	@	7
do, third do	5½	@	6
Veal	9½	@	
Mutton	8	@	9
Pork, undressed	6	@	6¼
do, dressed	8	@	8¼
GRAIN, ETC.			
WheatCal. coast	80	@1	85
do, shipping	1 90	@2	00
do, milling	1 90	@2	01
do, Oregon	1 90	@2	00
Barley, DarkC'st	1 20	@1	30
do, Light	1 30	@1	35
do, Brewing	1 40	@1	50
Oats, Coast	2 00	@2	12½
do, Light	2 12½	@2	20
Corn, White	1 15	@1	20
do, Yellow	1 15	@1	20
Buckwheat	1 75	@2	00
Rye	2 00	@	—
HOPS.			
California, 1871, lb	—	@	—
do 1872	50	@	55
Eastern, 1872, lb	60	@	65
MISCELLANEOUS.			
Beeswax, per lb	30	@	37½
Honey, choice	12	@	14
Los Ang. Honey	15	@	20
Onions	2¾	@	3
Flaxseed	2	@	3
anary do	4½	@	6
Mustard do, white	1½	@	1¾
do, brown	2	@	2½
Peas, Chili	25	@	—
Alfalfa	35	@	—
Ky. Blue Grass	50	@	—
Timothy	18	@	—
Italian Rye	35	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	5	@	—6
Pecan nuts	10	@	—
Hickory do	10	@	—
Brazil do	16	@	—
Prince Almonds	—	@	—
Cocanuts, ₱100	100 00	@	—
Alm'ds h'rd shell	—	@	15
do, soft	23	@	25
POTATOES.			
Sweet, per lb		@	—
Humboldt	90	@1	12½
Monterey	90	@1	12½
Tomales	90	@1	12½
POULTRY AND GAME.			
Live Turkeys lb.	21	@	22
Hens, per dz	9 00	@11	00
Roosters	9 00	@10	00
Chickens	5 00	@7	00
Ducks, tame, doz	11 00	@12	00
do, Mallard	5 50	@	—
Geese, per pair	2 75	@3	25
Quail, per doz	2 25	@2	50
Hare, per doz	4 50	@5	00
Rabbits, each	1 00	@1	50
Larks, each	75	@1	00
Doves, per doz	—	@1	25
Plover, per doz	—	@3	00
Curlew, per doz	—	@3	00
Teal, per doz	—	@1	50
Snipe, Eng., doz	—	@2	50
do, small, doz	—	@1	50
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	10¾	@	11
Eastern do	10½	@	11
do sugared	12	@	14
Cal. Hams	13½	@	—
Eastern do	14½	@	15½
Cal. Smoked Beef	10	@	12
WOOL, ETC.			
ChoiceNor'n fall	20	@	—
do spring	25	@	28
Sedy	15	@	18
Burry	12	@	14
Oregon	—	@	—
Hides, dry	19	@	20
do green	8½	@	9½
Tallow	8	@	9

FRUIT MARKET.

There are abundance of oranges from the south. Apples are plenty. Eating pears are scarce. Raisins are in plentiful supply, both California and imported. California figs are plentiful. Messine lemons, pineapples, bananas and pomegranates are out of the market.

FRUIT MARKET.			
Mex, Or. per 1000	—	@	—
Cal. do	20	@10	—
Limes, ₱ M	25 00	@51	—
Cal. Lemons, 100	$3	@4	—
Messine do, bx	—	@	—
Bananas, ₱ bnch	—	@	—
Pineapples, ₱ dz	—	@	—
Apples, cat'g, bx	1 50	@2	50
Cooking	1 25	@2	00
Pears, Eating	2 00	@2	50
" Cooking	1 00	@1	50
Pomegran's, ₱100	—	none	
Grapes, Mission		none	
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—
DRIED FRUIT			
Apples, ₱ lb	7	@	9
Pears, ₱ lb	6	@	8
Peaches, ₱ lb	11	@	12½
Apricots, ₱ lb	—	@	—
Plums, ₱ lb	6	@	8
Pitted, do ₱ lb	18	@	20
Raisins, ₱ lb	8	@	12½
Black Figs, ₱ lb	8	@	10
White, do	1	@	21
VEGETABLES.			
Cabbage, ₱ dz	50	@	60
Garlic, ₱ lb	5	@	6
Green Peas	12½	@	—
Green Corn ₱ doz	—	@	—
Marrow tat Squash per ton	7 00	@	8
Artichokes, ₱ lb	3	@	4
Tomatoes, L. A. ₱	12½	@	15
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Peppers dry	25	@	—
Okra	35	@	40

GENERAL MERCHANDISE.

BAGS.			
Eng, stand. Wh't	15½	@	—
Flour Sacks ½s	16¼	@	—
" " ¼s	8½	@	9¼
Stand. Gunnies	17	@	17½
" Wool Sacks	—	@	70
" Barley do	16	@	—
Hessian 40-in gds	—	@	12
do 60	17	@	17½
CANNED GOODS.			
Ass'ted Table Pie Fruits, in 2½ lb cans	3 75	@	—
Jams & Jellies 4	—	@	4 25
Pickles ½ gl.	3 25	@	—
COAL—Jobbing.			
Australian	15 00	@	—
Coose & Bel. Bay	15 00	@	—
Seattle	16 00	@	—
Cumberl'd, cks	25 00	@	—
do bulk	22 00	@	—
Chile	—	@	—
Lehigh	22 00	@	—
Liverpool	12 00	@	—
West Hartley	16 00	@	—
Scotch	15 00	@	—
Scranton	18 00	@	—
Vaucouver's Isl.	14 00	@	—
Charcoal, ₱ sk	00	@	—
COFFEE.			
Costa Rica per lb	19	@	—
Guatemala	16	@	18
Java	22	@	—
Manilla	17	@	—
Rio		@	—
Ground in cs	24	@	—
Chicory	9	@	—
FISH.			
Pac. Dry Cod, new bundles, ₱ lb	7	@	—
Salmon in bbls.	7 50	@	—
do ½ bbls	4 50	@	—
do 2½ lb cans	—	@	—
do 2lb cans	—	@	—
do 1lb cans	—	@	—
Pick. Cod, bbls.	8 00	@	—
do ½ bbls.	4 50	@	—
Pug. Sd. Smok'd	6	@	—
Herr'g, bx ₱ lb	—	@	50
Mack'l, No. 1, ½ bls	—	@11	50
" Extra	—	@12	00
" In kits	2 25	@3	00
" mess	—	@3	50
" ex. mess	—	@5	00
NAILS.			
Assorted size	5½	@	8 —
OILS.			
Pacific Glue Co.			
Neat F't's No. 1	25 00	@	—
Pure	1 20	@	—
Cocoa Nut	00	@	—
Olive Plagniol	5 00	@	—
do Po-sel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	—
China nut in cs	75	@	—
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	55	@	—
Polar, refined	60	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Oleophine	40	@	—
Devoe's Bril't	44	@	48
Long Island	42	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	42	@	—
PAINTS.			
Stand. Wh. Lead	—	@	10
Whitening	—	@	—
Chalk	—	@	2
Paris White	—	@	2½
Ochre	—	@	2½
Venetian Red	—	@	2¾
Red Lead	—	@	10
Litharge	—	@	10
RICE.			
China No. 1, ₱ lb	6½	@	—
do 2, do.	5½	@	5¾
Japan	6	@	—
Patna	7	@	—
Hawaiian	8¾	@	9
SALT.			
Cal. Bay, per ton	8 00	@	—
Carmen Island	16 00	@	—
Liverpool fine	26	@	—
do coarse	25 00	@	—
SOAP.			
Castile, ₱ lb	11	@	—
Local brands	9	@	10
SPICES.			
Allspice, per lb	17	@	18
Cloves	30	@	—
Cassia	30	@	—
Nutmegs	00	@	—
Whole Pepper	22	@	—
Ground Allspice	22½	@	—
do Cassia	37½	@	22
do Cloves	30	@	45
do Mustard	25	@	—
do Ginger	22½	@	27
do Pepper	22½	@	—
do Mace	20	@	—
do Coffee	23	@	—
SUGAR, ETC.			
Cal. Cube per lb	—	@	11¼
Circle A crushed	—	@	11¼
do granulated	—	@	11
Golden C	—	@	9½
do Extra	10	@	10
Hawaiian	20	@	22½
Cal. Syrup in bl's	32½	@	—
do in ½ bls.	35	@	—
do in kegs	40	@	—
TEA.			
Oolong, Canton	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsney	45	@	80
do Moyune	60	@1	00
Gunpowder, Cant.	30	@	42
do Pingsney	50	@	90
do Moyune	65	@1	25
Y'ng Hy. Canton	28	@	40
do Pingaoy	40	@	78
do Moyune	65	@	50½
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO.—Jobbing.			
Bright Navys	52½	@	60
Dark do	50	@	55
Dead Twist	60	@	65
12 inch do	80	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Coun. Wrap'r	49	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine ot ohe'g, gr.	8 50	@9	25
Fine cut, chewing, bu'ts.	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

LUMBER MARKET.

CARGO PRICES RED-WOOD.				PUGET SOUND PINE—Retail Price.	
Rough, ₱ M	$20 00			Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00			Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	@	55	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50			Flooring, 2d quality M	30 00
Rustic, ₱ M	35 00			Laths, ₱ M	4 00
Rustic, refuse, ₱ M	24 00			Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50			Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50			Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00			REDWOOD—Retail Price.	
Flooring refuse, ₱ M	20 00			Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50			Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50			Half-inch Siding M	22 50
Half-inch Siding M	22 50			Fancy Pickets, ₱ M	30 00
Half-inch siding, ref, M	16 00			Siding, ₱ M	27 50
Half-inch, Surfaced, M	25 00			Tongued and Grooved, surfaced, ₱ M	40 00
Half inch Battens, M	22 50			Do do refuse, ₱ M	27 50
Pickets, rough, ₱ M	14 00			Half-inch surfaced, M	40 00
Pickets, rough, p'nd	16 00			Rustic, ₱ M	42 50
Pickets, fancy, p'ntd	22 50			Battens, ₱ lineal foot	1c
Shingles, ₱ M	3 00			Shingles, ₱ M	3 50

San Francisco Retail Market Rates.

WEDNESDAY NOON, Feb. 12, 1873

FRUITS, VEGETABLES, ETC.

There a plentiful supply of vegetables this week. New green peas and asparagus have made their appearance, but the supply of the former is limited. Apples are plentiful, but pears are going out of the market very fast; none now coming in. Oranges from Los Angeles in good supply.

Apples, pr lb	5	@	10	Carrots, ₱ doz	20	@ 25
Pears, per lb	5	@	15	Celery, ₱ doz	25	@ —
Grapes	6	@	25	Cucumbers, †	—	@ —
Apricots, lb	—	@	—	Tomatoes, ₱ lb	25	@ —
Pine Apples, each	50	@1	00	Green Peas	20	@ 25
Bananas, ₱ doz	75	@	—	String Beans	—	@ —
Canteleups	—	@	—	Cress, ₱ doz bun	20	@ 25
Watermelons	—	@	—	Dried Herbs, lb	25	@ 50
Cal. Walnuts, lb	20	@	—	Garlic	10	@ —
Cranberries, ₱ g	—	@1	00	Green Corn, doz	—	@ —
Strawberries, lb	—	@	—	Lettuce, ₱ doz	25	@ 50
Raspberries, lb	—	@	—	Mushrooms, ₱ lb	20	@ 38
Gooseberries*	—	@	—	Horseradish, ₱ lb	20	@ —
Cberries, ₱ lb	—	@	—	Okra, dried, ₱ lb	50	@ —
Oranges, ₱ doz	50	@1	00	do fresh, ₱ lb	—	@ —
Limes, per doz	35	@	50	Pumpkins, ₱ lb	2	@ 3
Figs, fresb Cal.	—	@	—	Parsnips, doz	20	@ 25
Figs, Smyrna, lb	25	@	50	Parsley	15	@ 20
Asparagus, lb	20	@	35	Pickles, ₱ gal	50	@ 75

Nursery Notices.

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Alameda County,.....Cal.

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THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

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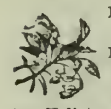
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Nurseryman and Florist,

THREE MILES NORTH OF OAKLAND,

Near Temascal Creek.

Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental belts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, fit for forest culture; Osk Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A heautiful assortment of Roses and Lilacs; also Asparagus Roots.

All orders will receive prompt attention. Address

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50,000

Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

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O. W. CHILDS, Proprietor.

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POMEGRANATE AND OLIVE TREES,

Including a limited quantity of ORANGE, Grafted and Budded on Lemon Stock.

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50,000 Choice English Walnut Trees,

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Italian and Spanish Chestnut Trees,

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GREEN HOUSE PLANTS,
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25v4-3m Proprietor.

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I offer at moderate prices a general assortment of

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Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

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For Spring of 1873.

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New York Seed Warehouse.

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A Splendid Stock of Grass Seed, Embracing, Mesquit, Kentucky Blue Grass, Orchard, Red Top, Rye and Timothy; Fine Mixed Seed for Lawns; White and Red Clover Seed; California and Chile Alfalfa.

Dutch Bulbous Roots, imported from the best Flower Nurseries of Holland.

Agent for the Genuine Languedoc Almond Tree—By the 100, at from $12.50 to $25.00. 100,000 EUCALYPTUS OR AUSTRALIAN GUM TREES, at from $15 to $25 per 100. CALIFORNIA AND AUSTRALIAN SEEDS. GARDEN HARDWARE, Etc. Seeds Warranted Fresh and Pure. Catalogues free on application.

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My stock of Seeds this season is larger and in greater variety than can be found elsewhere on the Pacific Slope, and of the last season's growth.

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TREES AND TREE SEEDLINGS, FRUIT, TIMBER AND ORNAMENTAL, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will be mailed free for one year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

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This season I have a new and exceedingly valuable squash, new varieties of corn, three fine melons, and other choice new vegetables for my customers.

My business is to supply, what every good farmer is anxious to get, the VERY BEST of vegetable seed. I grow a hundred and fifty kinds on my four seed farms, right under my own eye, *making new vegetables a specialty*, besides in porting their choicest varieties from European growers. A fine selection of flower seed, home grown and imported, will also be found in my Catalogue, which will be sent *free* to all applicants.

As stated in my Catalogue, all my seed is sold under three warrants. 1st: *That all money sent shall reach me.* 2d: *That all seed ordered shall reach the purchaser.* 3d: *That my seeds shall be fresh and true to name.*

JAMES J. H. GREGORY,
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TO FARMERS AND MARKETMEN.

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N. B.—Call in the Spring and see what onions, cabbages, etc., I set out to grow seed from.

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Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

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☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,
Spangled Gold and Silver Hamburghs,
Spangled Gold and Silver Polish,
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EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards--Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

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OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
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Parties wanting to sell would do well to send us a description of their property.

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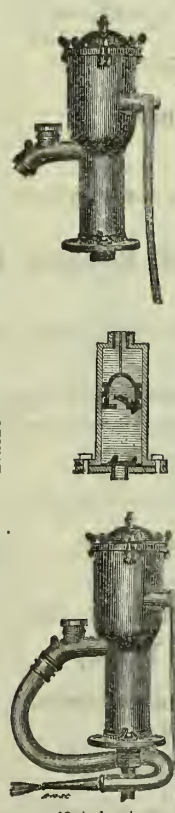
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Working in Wells from

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Suitable for either Hand or Power use.

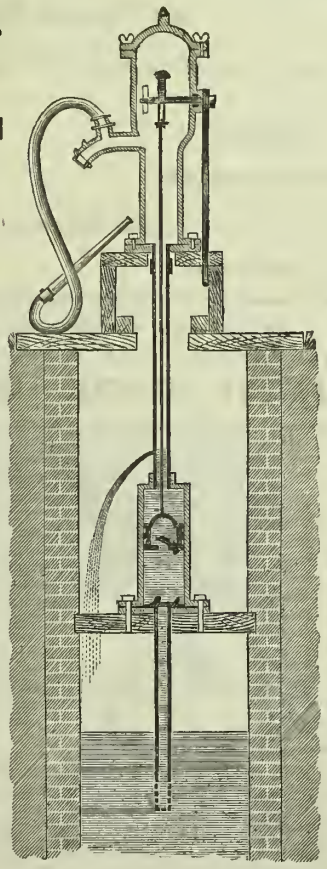
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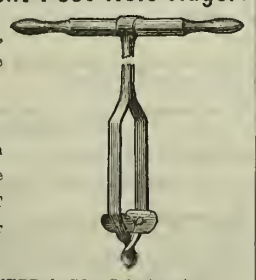
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Stickney's Patent Post-Hole Auger.



They are adjustable, and will force a hole from

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In any kind of soil, with perfect ease. They are made of solid CAST STEEL, and will never wear out.

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HOLLIHAN & BEARDSLEE,

☞ For sale by all Furniture and Carpet Dealers.
6v5-3m

San Joaquin and King's River CANAL AND IRRIGATION COMP'Y.

At a meeting of the Trustees of the San Joaquin and King's River Canal and Irrigation Company, held the 21st day of January, 1873, it was unanimously

Resolved, That in order to secure a co-operation of the citizens of California in one of the most important works for the benefit of the Agricultural and Commercial interests of the State, the President is hereby instructed to open Books for the subscription of 75,000 Shares of the 100,000 Shares of $100 each, Capital Stock of this Company, at the present cash cost of the work now done. No subscription to be received for more than 500 shares.

Notice is hereby given, in conformity with the above, that Books of Subscription for the 75,000 Shares are now open at the office of the Company, No. 320 California Street, Room 9, during business hours, for 30 days.

Capital Stock, - - $10,000,000.

Divided into 100,000 Shares of $100 each.

About 40 miles of Canal are completed, and supply water for Irrigating Lands bordering on the Canal.

Surveys are made from Tulare Lake to near Antioch, say 200 miles, and work progressing.

The Company HAS NO DEBTS.

For further particulars and terms of subscription, apply at the office of the Company.
fe1-1m J. MORA MOSS, President.

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I introduce this season a new tomato, the Canada Victor (see reading matter last week,) which is probably the earliest of all varieties. It combines just what is wanted, viz:—extreme earliness with large size, the round shape, solidity, richness of color, with an entire freedom from greenness and cracking around the stem, and first-class cropping qualities. Single packets of 25 seeds, 25 cts.; five packets, $1.00. Packets of 25 seeds selected from the few very earliest, 50 cts. each. My seed Catalogue free to all.

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In Life Insurance, select an OLD COMPANY WITH EXPERIENCE, and having a LARGE SURPLUS.

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In all these vital points, look carefully into the standing of all Life Insurance Companies, and the

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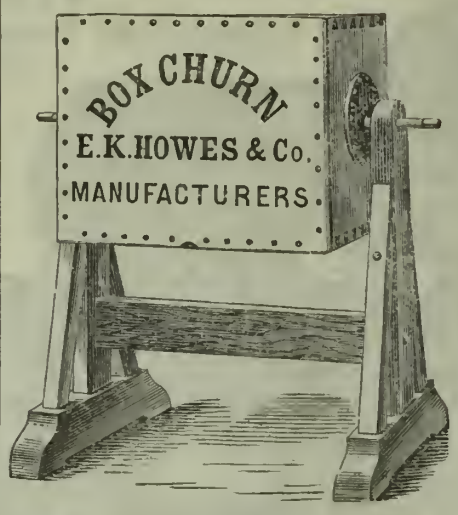
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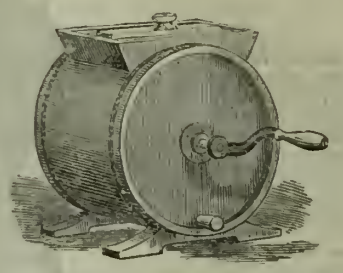
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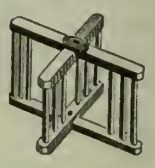
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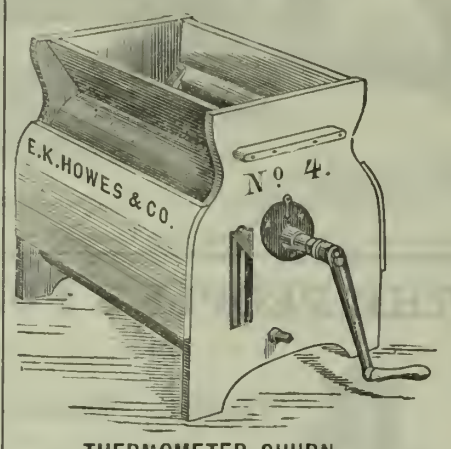


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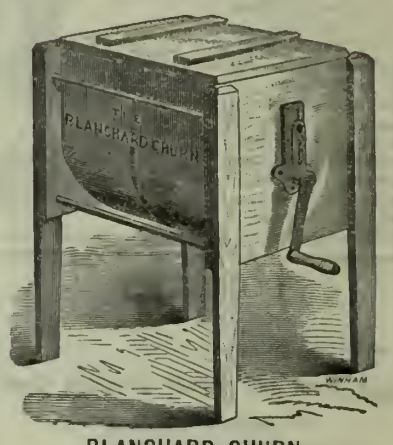


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EDITORIALS—Owyhee—the Sandwich Islands, Nature and Art, Our City's Fame, Education of Wives, Industry and Economy, Realities of Life, New Era of Art in California, Art Notes, The Drama, Music, The Little Folks, S. F. Art Association.

POETRY—Should I Repine when Time Forgives, Serenity, The Gold-fingered Brahmin, In the Wood.

MISCELLANEOUS—Frank Carlton, Poisoned Arrows, Scene with a Pirate, Old Man Porson, Home and Happiness, Preparation of Silk, Crocodiles, Witticisms, The Housekeeper, Gems of Thought.

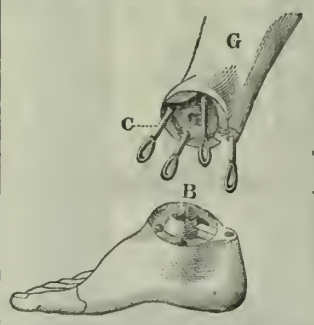
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with universal ankle motion. (The accompanying cut is its illustration).

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Also, Pigeons.

Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

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PURE BRED IMPORTED FOWLS.

"Heggs for Atching."

White Bald Face Black Spanish, $2 per dozen; Light Brahma, $3 per dozen; Dark Brahma, $4 per dozen; Buff Cochin, $5 per dozen; Silver Spangled Hamburg, $6 per dozen; carefully packed and shipped free of extra charge. All kinds of fowls bought, sold or exchanged.

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TO FARMERS AND RANCHMEN.

Improve the Breed and increase the Size of your

TURKEYS.



Try the Cross of the Bronze Turkey

WITH YOUR COMMON STOCK.

I am breeding from Fowls weighing 64 pounds to the pair, and have for sale a few Gobblers and Pairs.

Orders for Eggs received now.

A Bronze Gobbler running with ordinary Hen Turkeys, will make a difference, in a brood of twelve young Turkeys, of five pounds each, that is sixty pounds, worth, at 25 cts. per. lb., fifteen dollars, besides a much greater percentage of the young reaching maturity, owing to the extreme hardiness of this breed.

This breed of Bronze Turkey is remarkable for its hardiness as well as great size.

Give them a Trial. Perfect Satisfaction Guaranteed.

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Importer and Breeder of Choice Fowls,

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Thimble Skein AND IRON AXLE

Sole Agents TREADWELL & Co.

It will pay any man who wants a Wagon to examine "The Whitewater." It has the reputation of being the BEST Farm Wagon ever sold in California. All sizes for sale by TREADWELL & CO., Sole Agents, San Francisco. 7v5eow

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GUANO.

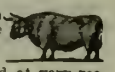
100 Barrels Guano for Sale,

In quantities to suit purchasers.

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DEVON STOCK FOR SALE.

A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character



From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,

jan25-3m16p Three Miles from Menlo Park.

GUADALUPE ISLAND COMPANY.

Notice is hereby given to the Stockholders of the Guadalupe Island Company that a special meeting will be held at its office, 306 Pine Street, on February 22d, 1873, at 3 o'clock P. M., for the purpose of adopting By-Laws. By order of

WM. M. LANDRUM, President.
ARTHUR RODGERS, Secretary. fe8-2t

ARCHITECT J. J. NEWSOM No 430 MONTGOMERY ST S.F.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, FEBRUARY 22, 1873. [Number 8.

Pop-Corn.

Pop-corn and Pea-nuts are indespensable to "Young America," as well as to the older gentlemen; as necessary for the hoodlum who would speculate on a capital of a dime, as to him who manipulates his stocks on the corners of Montgomery and California streets; all eat pea-nuts, all grind their due proportion of popped corn, and each in his own mill.

Now it is important that a commodity so universally sought, first for milling, afterwards to serve alimentary, dietetic, or sanatory purposes, should be of the very best quality. To secure this, it is important that none but the best article possible be offered to the consumer; and it is equally to the advantage of the producer of pop-corn, that he cultivates not only the best, but the most productive variety; not only prolific, but one that can be depended upon for full maturity in any ordinary season, a quality that is not possessed by several varieties of the pop-corn family.

In our illustratiou we present a variety that claims the merit of being simply perfect pop-corn; it was raised by Joseph Dimmock, of Windsor, Sonoma County, last year. It is exceedingly prolific, for though many stalks produced more ears than are shown by our engraving, the average of stalks would not fall below. We have tried the popping quality of this corn, and know it to be superior, equal, if not better than any we have ever seen before.

Small samples of this corn can be obtained, post paid, by remitting 25 cents to E. E. Moore, seedsman, 425 Washington street, S. F., or by addressing this office. We have before spoken of this valuable production, and can vouch for its growth in California, as stated, but for its success elsewhere we quote the following from E. O. Judson, of Cuba, N. Y., who first propagated it.

"The most productive variety known, *producing from eight to ten ears on each stalk.* Equal to a yield of from one hundred and fifty to two hundred bushels per acre. Although it is, strictly speaking, a variety of parching corn, it is equally adapted to all purposes of common field corn for stock and poultry feeding, etc. It weighs, when shelled, stricken measure, sixty to sixty-two pounds per bushel. It should be planted in drills three feet apart, putting one kernel to every foot."



A NEW JOINT POP-CORN.

Inquiry for Sheep.

Several parties are asking for large flocks of sheep, which they will pay the money for. Others will or would like to buy lesser flocks, say of from 300 to 600 head of common grade sheep, ewes are preferred, but wethers are also saleable. It is the opinion of some that there is to be an advance on wool over last year's prices, hence the inquiry for sheep. But a favorable feature of this want is, that the inquiry comes almost entirely from new comers amongst us.

The fact is we have received during the last winter a considerable accessiou to our population overland, and they have come from a country so cold and dreary as compared with ours, that when they drop down from the Sierras among us, they are perfectly delighted and quite satisfied to stay with us. All of our large and first class hotels are full, showing that many of our visitors are men of means. All the hotels of the lower coast, that are more generally only the resort of invalids and pleasure seekers during summer, are full now, and have been the most of the winter.

And a feature more than ever before presented is, that large numbers are traversing the country up and down, hither and yonder, in pursuit of abiding places for themselves and families. We are on the eve of prosperous times, indeed they are already upon us.

The Syrian Goat.

The common goat has doubtless existed as a domestic animal from the earliest times. All through the Bible mention is made of them as constituting no small portion of the flocks and herds of the old patriarchs. The home of the goat takes a wide range, for they are found to thrive under the care of man, not only in the hottest parts of India and Africa, but all through the temperate zones of the earth quite into the frigid.

As might be expected from this, a great diversity of breeds and varieties exist, suited to the conditons of country, altitude and climate. Hence we have, besides the common coarse-haired goat, the Syrian, Angora and Cashmere goat, all more or less remarkable for the length, fineness and glossiness of the hair. There is also a beautiful dwarf variety found in the west of Africa called the Guinea goat.

Nor is the quality of the hair the ouly way that Nature sports its varieties; for besides the dwarf spoken of, we find them with horns of all sizes and shapes and standing in all directious; and in the Syrian, with long pendant ears like the lop-eared rabbit; and in several other ways are they subject to variatiou, exceeded by no other animal perhaps, except the dog. The uses of the goat are numerous. The flesh is equal to, or superior to mutton, that of the kid or young goat being esteemed a delicacy. The milk is very rich and nutritious, more easy of digestion than that of the cow, and is often used, it is thought with benefit, by consumptives.

The Syrian goat, which is the subject of our illustration, is remarkable for the quantity and quality of its hair, being fully equal to the Angora, and for its large yield of milk, many animals yielding over four quarts of milk daily. In the mountains of Syria, the inhabitants form considerable dairies entirely from goats of this variety.

There is another animal not exactly of the goat family, that is remarkable for its immensity of "lip," but in the Syrian goat, nature made a direct dash at the ear, and succeeded in he attempt, for probably no animal of its size has more of it. It is one of the most interesting as well as beautiful and valuable of all the goat family, and we hope that some of our able, fancy breeders of live stock in this State, will secure an early importation.



SYRIAN GOAT.

Chinese Grass Cloth.

A reader of the RURAL says, that in an old work which he has been reading on China and its productions, mention is made of a kind of cloth made by the Chinese, having a texture equal to silk, indeed can hardly be distinguished from it. That it is a plant which grows very rapidly and is propagated both by parting the roots and from seeds. That some of the finest of this grass can be spun into cloth rivaling the best and finest linen; and finally our correspondent wishes to know if we do not think the grass would be a valuable acquisition to California.

The "Chinese grass," is nothing more nor less than the ramie plant, which is now being quite extensively cultivated in the United States. It is not properly a grass, but was so considered before it became definitely known to "barbarians" what it was. It has a stalk and lobed leaf, hence not properly a grass; but botanically one of the "stingless" nettle family, too well known to need any further description.

There is no doubt but there are varieties of plants and their products in China, Japan and the Pacific islands, that might be utilized with profit in American manufactures; that could all be grown in some portion of California, if introduced.

Coir and Other Fibres.

Coir is the name given to the fibre obtained from the husk of the cocoa-nut, and is very extensively used in the manufacture of matting, coarse sail cloth, and a light and elastic description of cordage where great strength is not absolutely a requisite. The pine apple family affords a very fine and strong fibre which is made into fishing lines and even delicate fabrics.

The fibre is obtained from the long leaves of the plants. One variety is used in the West India islands for making ropes, for fencing fields; and a superior quality is made into fishing nets and an elastic cordage superior for holding anchors. In the Philippine islands there is wrought a variety so fine as to be hardly visible, and from which a delicate muslin-like fabric is made and beautifully ornamented in the weaving.

Agaves or Aloes.

These have already become of great use, and the manufacture of cordage from the fibre, after being separated from the pulpy leaf, has grown into a business of large importance, and the manufacture might be extended with profit.

The Asclepias.

This is an extended family, abounding in valuable fibre, but not utilized to the extent it might be with manifest advantages and profit. A small climbing plant of this family furnishes fibre that makes a superior bowstring, that will last for five years, under all the exposure incident to its use. It is estimated to be fifty per cent. stronger than the best hemp.

A species of this plant the *asclepias gigantea*, resembling the common milk-weed of the Atlantic States, grows in India with broad fleshy leaves that give out a milky juice when wounded, from which sugar in considerable quantities is obtained and also a material very closely resembling gutta-percha. It will grow where nothing else can thrive; requires neither culture nor water though growing in apparently clear sand; the fibre is obtained only by peeling by hand as water is injurious. It is of peculiar fineness and great strength, possessing a commercial value almost equal to silk.

The Esparto.

This has proven one of the most generally successful fibre-producing plants known and has assumed a correspondingly growing importance. It is used for all manner of coarse fabrics and for paper for which it is peculiarly adapted.

Bromilia Sylvestris.

This is the silk-grass of British Honduras, and grows spontaneously in great profusion. It has soft green leaves, two to four inches wide, and from five to ten feet long, with sharp curved thorns along the edges, the upper side of the leaf soft and pulpy, the under side hard and ligneous. Its annual product as an export from that country is valued at twenty millions of dollars.

There are many other plants possessing fibrous qualities of value that might be named, for the vegetable domain of earth is filled with fibres, but differing in value as differs their tenacity, lightness, firmness and color, and in other properties; their practical value depending more upon the facility of separating the fibres, than upon cost of culture or amount of product.

A great number of these plants might be acclimated in California with only the expense incident to a first introduction, that would eventually prove not only immensely remunerative, but render our country wholly independent of any foreign supply.

IRRIGATION OF THE SAN JOAQUIN AND TULARE VALLEYS, CALIFORNIA.—In the U. S. Senate, February 13, Stewart introduced a bill authorizing the President to appoint a Board of Commissioners, consisting of two army engineers and one coast survey officer, now on the Pacific Coast, who are to report to Congress, at the next session, a system of irrigation for the San Joaquin and Tulare valleys, in California. The officers above designated may call in the Chief of the Geological Survey of California and some other distinguished civilian expert, at salaries of $3,000 each; transportation and supplies to be furnished by the War Department while the Board are in the field.

THE ALMOND.—We are asked in regard to the Princess' Almond, whether it is the same as the Lanquedoc. It is but a fancy name given to the true Lanquedoc, and we doubt whether any good results from it. All know the superior quality of the Lanquedoc, and will send to nurserymen for that variety, when they would not take the Princess as a gift, because it has no established reputation by that name.

CORRESPONDENCE.

Notes of Travel Through Santa Cruz and Monterey Counties.

[By our Traveling Correspondent.]

EDS. PRESS:—Since my last to you, describing the Walla Walla Valley, W. T., I have visited all the towns and places of resort south of your city, contained in San Mateo, Santa Cruz and Monterey counties. Having visited a majority of the points (of which I propose to mention in this letter) before the late rains, I cannot give you as favorable an opinion of their activity as now exists.

Crystal Springs, located 15 miuutes drive from San Mateo, (the point of divergence from the S. P. R. R. for Pescadero,) still looks as beautiful as ever, and quite a number of iuvalids and tourists are stopping there at this writing.

Pebble Beach,

Near Pescadero, and some 54 miles south of your city, has lost none of its attractions for the pleasure and health-seeking public, that it has had for years. If anything, this beach seems to be more profusely strewn with gem pebbles than ever before, to appearance at least, there are even more pebbles visible now than there was ten years ago. Swanton—the hotel chief—had his hands full while we were there, for the house was crowded.

Santa Cruz,

The county seat of the county of the same name, is located $5 worth of fare distant from your city and the number of miles you have to pay for is 121, one hundred of which is via rail on the S. P. R. R. to Watsonville, the balance by stage. Santa Cruz town, and vicinity has just as many attractions as ever; but the place is over done, there being twice as many business firms as can make a living furnishing wares to the traveling public and surrounding inhabitants. Over 800 lumber men, choppers, shingle makers, etc., have left the redwoods, within an area of 18 miles of this place, within the last 15 months.

During court week and horse racing, but little enthusiasm was raised, the receipts of the track not more than paying expenses. I notice the acquisition to this vicinity of the celebrated dairyman L. K. Baldwin, formerly of Olema, Marin county, who for years has been the manufacturer (together with his partner, Mr. Garner,) of the noted Baldwin butter, sold in bricks of 4½ pounds each, in your city.

Loquel,

Probably the least attractive to the passer-by of the towns of Santa Cruz Co., but nevertheless surrounding which are some of the finest farms in the county, and near which are located four sawmills, two gristmills, and one of the finest tanneries in the State, owned by the Messrs. Porter.

This county is noted for its manufacture of sole leather in particular. I neglected to mention above that there are three large tanneries at or near Santa Cruz, employing in the aggregate 100 men -- that of Boston, Jones & Co. being of the largest capacity.

Watsonville,

Located 100 miles south of your city, *via* Southern P. R. R., contains about 1,800 inhabitants, at present being the largest town in the county of Santa Cruz. Its exact location is five miles east of Monterey Bay, and 1¼ miles distant from Pajaro Station, on the railroad; it is the most beautifully laid-out town in the south end of the State. Less mud was visible after the late rains on the principal streets of this place than on Market street of your city. A fine plaza decorates an entire block, fronting on the principal street, adjoining which stands the "Mansion House;" it is presided over by A. W. Billings, Esq. This building is 90x110 feet on the ground, has 65 rooms, lit throughout with gas, and hydrant-water in every room. Adjoining it is one of the finest livery buildings in the county. The whole structure cost $28,000 to erect, and $12,000 more to finish; it was completed Dec. 1st, 1871. It is not the finest-looking building in the State, but is the best kept outside of San Francisco.

Including the above, some $65,000 worth of new buildings have been erected in and near this place within the last fifteen months. I might mention Stoesser's Block, a two-story brick and iron front, also the Central Hotel, completed in Sept. last, etc. This place is a live one, and its business-men also.

Hops and Mohair.

Austin Smith is the most extensive of the hop-raisers in this vicinity; his ranch is located about one mile north of Watsonville. As to the number of acres he will have in this season, I am not informed. The general prospects of the hop crop never looked better. Mr. S. has agreed to communicate with you upon hop culture in this State. No one is more competent.

Messrs. Landrum & Rodgers, with ranch adjoining Mr. Smith (as above) are the principal owners of the "Angora Goat" in this section; they inform me that there are in this State at present writing about 70,000 graded goats, nine tenths of which are ewes, so it is safe to calculate on at least 100,000 next year. Messrs. Landrum & Rodgers' flock consist of 106 head of thoroughbred, and 1,600 graded angora goats, 1,000 of which they will shear the coming spring. These gentlemen are also the owners of 22 head of thoroughbred Coltswold sheep.

Passing south towards Castroville and Salinas City, the first point of interest that attracts our attention is

Moss' Landing,

Which is situated in the northeastern part of Monterey County, on Monterey Bay, about a mile from the mouth of the Salinas river. It is about twenty-six miles from Santa Cruz and fifteen miles from Monterey, overland. For the past six years this place has been the outlet of all the grain produced in the Salinas Valley. The amount raised during the first two years was comparatively a small portion to that which is now produced. Each year finds more farmers and dairymen flocking into the valley, and the day is not far distant when the Salinas Valley will be equal to the richest in the State.

As a proof of its productiveness, the number of sacks with weights of the various grains brought there for shipment during the year 1872 will suffice:

	Sacks.	Weight.
Wheat	135,345	16,954,647
Barley	102,546	10,970,647
Mustard	12,160	1, 58,770
Potatoes	46,167	5,884,351
Oats	1,794	146,435
Flax	2,587	232,745
Rye	1,088	126,570
Beans	3,583	2.2,745
Peas	2,604	269,940
Wool	1,632	516,764

The greater portion of the grain has been conveyed to San Francisco by the steamers "Santa Cruz" and "Monterey" owned by the well-known firm of Goodall, Nelson & Perkins.

The steamers "Salinas" and "Donald" ply there at such times when the regular steamer "Santa Cruz" is not sufficient to convey the grain ready for shipment. The S. P. Railroad runs within three miles of this place, and no doubt, will carry much of the grain in the future. Castroville is the nearest town, which is two and one half miles distant. More next time.

L. P. MC.

Olema Correspondence.

ENS. PRESS.—As the rain prevents me from otherwise employing myself I propose to atone for my delinquency by giving you a few notes from this delightful dairy country.

Having effected a bargain with a native for the hire of a hungry looking beast (at no small price), I mounted my *cavarro* and began the tedious ascent of the Coast Range, which in course of time I accomplished, and made a halt to drink in the beauties of the scenery around me. On either side the mighty peaks towered in silent majesty, their lofty summits bathed in golden vapor, their rugged sides clothed with the delicate verdure of early spring. A few fleecy clouds floated in the clear azure heavens, from which the sunbeams descended with that gentle tremulous light that benefits the season of "smiles and tears." The road has a beautiful green margin to it, grateful to feet weary of the fatigue of a day's ride, and I dismount and lead my mustang, who seems to appreciate the change. On one side a rugged precipice slants down to a beautiful brawling streamlet, whose waters are as bright and charming as ever sparkled in the wild dream of a poet; and the respondent hills seem yet to echo back the music of its rippling waters. Here the feathery songsters fill the air with their liquid melody.

Further on, and I enter on a vast undulating plain covered with verdure and dotted with herds of cattle, impressing one that we are in the midst of spring—this is what is known as Point Reys, comprising an area of from eight to fourteen miles in width, and twenty-five miles in length, along the coast. This strip of land is owned by Messrs. Shafter and Howard, of San Francisco, and the ranches, some twenty or more, well stocked, are leased to dairymen for periods ranging from one to three years. The dairying season has already opened, and with flattering prospects too, consequently the dairymen are all in good spirits; though the cows are not yet all in, some are milking as many as two hundred cows.

At the close of my second days' travel I reached the extreme point, whereon the Point Reyes Light House is situated, and kept by Captain Bull, an old seaman, whose pressing invitation to spend the night with him I accepted, and was hospitably entertained, spending a portion of the night in the Light-House, which is a novelty in itself, and well worth a visit by those who may seek recreation out this way. A new Fog Signal has just been completed upon the site of the one recently burned (near the Light-House) and will soon be in operation. This, is indeed a pleasant retreat to those who appreciate retirement; and the ocean's roar which is unusually loud, and the barking of legions of Sea Lions constitute sufficient diversion.

In the morning following, I resumed my journey, which, from the undulating face of the country was necessarily circuitous, visiting all the farm houses, and inspecting most of the dairies, some of the latter deserving especial mention; among which, that of Mr. Henny, and Miss Bridget Claussen, the latter, on the Flat Ranch, is managed by Miss Bridget Claussen an attractive, energetic and industrious young lady from Sweden, who conducts her butter-making on the Swedish plan; the dairy-house is commodious, the most important feature about it being its extreme cleanliness; it is indeed a model of neatness from the wash room to the milk-room. She uses no pans, but large cans, instead, the cans holding about twenty gallons. The milk room contains four vats made in the floor, two feet and a half in width, about three and a half in depth, and extending entirely across the room, which is about twenty feet wide. The milk cans are placed on rocks laid in the bottom of the vats, are constantly supplied with fresh water by pipes, consequently the milk is kept fresh and cool, and after being skimmed is made into cheese. The cheese room is supplied with a large zinc-lined tank, somewhat like a locomotive's tender, with furnace underneath running the whole length of the tank This dairy is supplied with all the necessary modern improvements, except the patent "butter worker, which Miss Claussen will not use, but works the butter with her own hands, which is doubtless as good as the modern process. There are other large dairys to be mentioned in my next. I will conclude by saying that Point Reyes is decidedly "a land of milk and——butter," and a guest will have no difficulty in ascertaining on which "side his bread is buttered," as these hospitable people invariably butter both sides. I would further add that your correspondent found but few families in which the RURAL was not taken and those readily subscribed. The ILLUSTRATED PRESS bids fair to become very popular and subscribers are anxiously looking for the February No. More soon. DE SPAIN.

Olema, Marin County, Cal., February, 1873.

Railroads and Land Grants.

ENS. PRESS:—In view of the wide-spread dissatisfaction which exists throughout the country against the monopoly of lands created by railroad grants, any suggestions, however crude, looking to a remedy, may be of sufficient interest to warrant their publication. The extensive circulation of your valuable paper in the Pacific States, seems to point to it as the best means of reaching those most interested.

To one, who has lived in the West at an early day, when corn was sold at ten cents and wheat at twenty-five cents per bushel, and the area of land in cultivation and the encouragement of labor proportioned to these prices, and witnessed the augmentation of prices, the impetus given to every branch of industry and the change in everything produced by the advent of a railroad, would hesitate to do anything to obstruct the progress of such public improvements, and must deprecate a system which threatens at no distant day to drive the people to the adoption of an obstructive policy. The disadvantages and hardships arising from rail road grants as heretofore enacted are undeniable, and may be enumerated as follows, though the minor disadvantages growing out of these principal ones must be left to the imagination.

I. The operation of a grant leads to holding of lands so granted for speculative prices, and so long as government lands in the vicinity are purchasable at a lower rate, virtually withdraws such lands from the market.

2. The title to lands thus granted is liable to be involved by mortgages and rendered less attractive to settlers.

3. Anything which prevents or delays the settlement of adjacent lands, deprives those settling upon government lands of that neighboring assistance, which is so necessary in new countries, in making public improvements, establishing schools, making roads, etc., and thus prevents or delays public and private progress, and renders the public lands so situated less desirable for settlement.

4. Any delay in the settlement of adjacent lands deprives the railroad of the business which it should derive from their development, and the encouragement of the various industries which would grow out of such settlement; and this deprivation tends to impair its efficiency.

Thus it will be seen that the system, heretofore in vogue, in a large measure, obstructs that progress which it was designed to subserve. It is much to be feared that it has given rise to much of the undue speculation which has obtained during the last few years; and not only this, but the system of sales adopted by railroad companies gives them a power over individuals, which, though legitimate in a business view, is nevertheless dangerous to the community at large, where such powers are abused in the hands of unscrupulous men.

In most cases it would seem to be good policy to allow railroads to grow naturally out of popular necessity; in which case they need comparatively little assistance aside from the security of their franchises. But in some cases, where widely separated communities are to be brought together by railroads extending over large spaces of unoccupied lands, it may, in the future as in the past, be considered for the public good to render such efficient assistance as such a costly enterprise must have to be successful. How shall it be done so as to avoid the disadvantages above enumerated?

1. Fix upon the amount of assistance to be given.

2. Issue bonds of the United States Government for said amount, in such installments and at such times as may be fixed by law.

3. Set off such quantity of public land in a body on one side of the proposed road, as shall be necessary to raise the required amount with interest until the bonds are paid; having due regard to the amount of land occupied by pioneer settlers, and their right to land at minimum rates or as homestead claims.

4. Grade the prices according to quality and contiguity to the railroad, thus equalizing prices with the advantages to settlers, and securing the sum necessary to retire the bonds at maturity, from the excess above minimum rates.

5. Hold such lands for pre-emption only and grant such liberal time to settlers as shall induce rapid settlement, full payment not being required until the settler is in the enjoyment of the advantages in consideration for which he pays the enhanced price.

By some system like this much that gives rise to public discontent would be avoided.

The public would know the exact amount of assistance rendered; the title of large tracts of land would not be embarrassed by mortgages; the settlement of them would not be prevented or delayed; settlers would have the benefit of their whole neighborhood to forward public improvements and enhance social enjoyment, and the railroad company benefit by the business of the whole instead of a part, and by the same means secure the best possible aid to facilitate their legitimate operations.

Under a system like this, it would be necessary to hold immense tracts of public land in reserve, as heretofore, to the exclusion of the settler, and against the best interest of the country. Railroads are costly improvements, and to construct them successfully, requires a peculiar talent, combining the mechanical, the executive and the financial, which few possess, and it is to be regretted that unwise legislation should have so embittered the public mind, that the names of those at all eminent in railroad affairs cannot be mentioned except with a degree of obloquy and detraction which tends to drive from the public service the sensitive and honorable, and deprive the country of reliable and invaluable service.

When the subject of railroads shall be studied to a degree at all commensurate with its magnitude and importance, and not before, may we hope that such companies will be properly regulated, their powers defined and the rights of the people conserved. Then only, will a fair field be opened to the legitimate railroad man, and the railroad sharp be kept in proper subjection. S. A. B.

Santa Cruz, Feb. 8, 1873.

San Luis Obispo County.

ENS. PRESS:—This county has never made any pretention to agriculture, having mostly been devoted to grazing and dairying; but the no fence law having been at the last session of the legislature extended over a portion of this county, it has given a new impetus to agriculture, and thousands of acres of the fair face of nature are being furrowed as they were never furrowed before.

A new flouring mill was erected last season near San Luis Obispo and now another is being built on the Arroyo Grande by Mr. F. Z. Branch, a veteran "Pioneer," who has lived in this place over forty years. It is to be a first-class mill, and the people of this county may hereafter be independent of San Francisco for their flour supplies, and the steamship company will miss a big item in freights. We have had four weeks of delightful weather since our first week's rain, until day before yesterday, but the feed began to dry up and the people began to put on their long faces once more, but now are inclined to cry "hold; enough!" Friday night it poured incessantly all night, and Saturday night we had a regular old fashioned Eastern thunder and lightning and hail storm which made the natives tremble in their boots, and must have been very destructive to the thousand young lambs that are dropping at this season of the year. Can you or some of your subscribers inform me what variety of corn will yield the best and at the same time come to maturity quickest? Also is it advisable to pull off the suckers from corn? I presume these questions have been answered in the PRESS but as I am a new subscriber I am unadvised. J. M., JR.

Arroyo Grande, Feb. 3d, 1873.

Our experience has been that when three or four kernels of corn are put into a hill close together, that there will be few, if any suckers; but when spread to a considerable distance, suckers are numerous. Hence, our way is to plant close and let what few suckers there are, alone; it won't pay to remove them. As regards variety, make inquiry if possible, of those who have grown the different varieties in your neighborhood. If not, then the only way is to experiment. No two soils or climates are alike, in different parts of the State.

Stock Range.

The Epizooty

In our last week's issue we gave very fully, the methods of treatment practiced at the East for the cure of the epizooty so generally prevalent there duriug the last autumu and early winter, of which the let-alone treatment, with careful nursing and rest from hard work, seems to have been the most successful. In order to suit all persons and practices, aud because we have been kindly furnished by Mr. Chas. Platt with the Homœopathic treatmeut as applicable to the epizooty, as practiced most successfully by J. W. Johnson, V. S., of Cleveland, Ohio, we publish Mr. Johnson's letter, hoping it may prove of valuc in case the epizooty of virulent type should reach us, which we very much doubt.

CLEVELAND, OHIO, Jan. 2d, 1872.

Mr. CHAS. PLATT—*Dear Sir:*—Your favor of the 25th inst., was duly received, the Epizootic pronounced as follows: Ep-i-zo-ot-ic has made fearful havoc among the horses in this and all other Eastern cities. I had over 450 cases and lost 11. I consider mysuccess far beyond expectation. The treatment in its first stage is as follows: Belladona, 1st dilution, Nux Vomica, 2d dilution; give one dram,—dose every three hours in alternation for three days, day and night; Kali Bichromate, 1st Trit. 10 grs. in a powder; give one powder morning and evening, say 12 hours apart; when you give the powder, omit the Bell. and Nux. Three days generally breaks up the disease.

2d stage. The horse labors in breathing similar to inflammation of lungs, but of a suffocating character and only of the mucus surfaces apparently, as though they would strangle and die in a few hours. In such cases, give a few drops, 5 of Ammonia in 1 ounce of water every 15 minutes for three doses only; in two hours after give Lycopodium, 3d dilution, 1 dram dose in alternation of Bryonia 2d dilution, 1 ounce dose, 3 to 6 hours as the case may seem to require. And in any event do not omit the powder, as it prevents the occurrence of the signal, (as some term Dropsy) Purpura Hemorrhagica, *no dropsy;* in case you should have, or see any Dropsy (as they call it) treat it as follows: (and you may bet your life it will come out all right) Apocynum can. 1st dilution 1 ounce dose, Bryonia 2d, 1 ounce dose, alternately every hour for 48 to 50 hours, after which every 6 hours; remember, do not omit in any case the powder, *Kali Bichromate 1st, Trit 10 grs.* Some few cases you will meet with when the urine is milky and foams, bad odor; in such cases you can omit all other remedies and give Phosphorus Acid 2d, dilution 1 ounce dose, 3 doses two hours apart, then resume the treatment as before. I had 27 of those bad cases. Lost 5; 11 of them taken nnder treatment after other Veterinarians gave them up; lost 5 of the 11. If any horse should have diarrhœa, be cousiderably debilitated, extremely weak, give Fowler's solution 20 drops every hour; he will soon rally. Aconite is not much called for in auy case, unless you find the horse's mouth and tongue very dry in the first stage. I only used it iu two cases of mine and that only for oue day.

In the first part of my letter saying in three days it will break up the disease, you then order each horse to have Belladona in the morning, and Nux at night, powder at noon for 10 days. See your horses every day; you will find Bell. and Nux to govern ⅞ of all the cases, with the powder. Homœopathic treatment has met with more favor in this epidemic than any other; the old School treatment was a complete failure. By the way, have every horse well clothed and walking exercise every day in the open air, or fresh air. J. W. J., V. S.

Stock Breeders' Convention.

EDS. PRESS:—Having seeu iu the last number of the PRESS an account of the Stock Breeders' Convention, it may not be considered presumption to offer my crude views on that and kindred subjects through your columns, with the hope that one newspaper within the State, would not think the discussion too insignificant a topic for publication.

The title by which the convention was known, "Convention of Short-horn Durham Stock Breeders," is funny enough almost, to be ridiculous. The name adopted by the convention, *i. e.*, "The Califoruia Thoroughbred Cattle Breeders' Association," is a decided improvement, but with all deference to the learning and wisdom of that couvention, there is yet room for improvement in that very name.

An annual meeting or convention of stock breeders could and would be a very pleasant, interesting, instructive and profitable reunion of gentlemen whose interests are inseparable from the welfare of the State. And who will say that a distinction should be made between the thoroughbred horse, the trotting horse, the Devon, Durham or other breeds of cattle, the Cotswold or Merino sheep, the Angora goat, or Essex hog breeder. Surely they have all a common interest in the propagation of their respective stock, and an exchange of views could not fail to be at once both instructive aud profitable.

The subdivision of interests, like the one under consideration, to the exclusiou, if not the positive detriment of other iuterests of equal, or perhaps paramount importance, is an impolitic movemcnt. The people at large have an interest in the breeding and rearing of good stock even down to that valuable animal the shepherds' dog. The Legislature of the State did one wise act if no more, they devoted public lauds to encourage the propagation of good stock. Therefore every tax-payer has an interest in the success of this laudable undertaking. Why, then, should not every farmer be represented and intcrested? It matters not whether his crop consist of Durhams or Cotswolds, of Trotters or Angoras, of Goldcu Wheat or Sugar Beets, any measuro materially affecting auy one of these branches of husbandry must necessarilly have a large influence on all the others.

A change having been made iu the State Board of Agriculture, one or two suggestions to the newly installed officers, may uot be out of place.

Judging from the past, the President of the Board, Mr. Carey and the able, affable and efficent Secretary, Mr. Beck, are ever and always willing to right a wrong when brought to their knowledge. That a wrong, and not alone a wrong, but a reproach, to the State has been practiced for years at our State Fair is a truth. I allude to the shame-faced Wine Bill iu the judges' stand. The contestants for a purse must staud treat for judges and all bibacious loafers, who are never lothe to crowd the modest, deserving gentlemen to the rear. The judges' stand at Sacramento, and for that matter (thanks to the example set at Sacramento), at every little County Fair in the State, is metamorphosed for the nonce into a kind of doggery dance house, where all who dance must not only pay the piper, but treat the company all round to boot, no remonstrauce will avail. Another small-sized evil is the professional judge. He who "travels for the game," who is always to be found in the stand wheu his friend and benefactor's horse is in the contest, and who's hide is as thick as that of a rhinoceros. Let us have for judges hereafter, as heretofore (with but few exceptions), honorable men who understand the rules of raciug and with honesty enough to enforce them.

In conclusion let me suggest to Mr. Jessy D. Carr, Mr. G. M. Sweezey, Colonel Younger and other gentlemen of the late Couvention, to throw open their doors at the coming Convention in April, to men engaged in all kinds of farmiug iu the State, let the different farmers' clubs have a representation if they wish, let that Convention proclaim its views on the different branches of industry within the State; make known to the world our possessions and our wants, and let that Convention be kuown by the honorable and simple name of Farmers' State Couvention. SUBSOIL.

Watsonville, Feb. 9th, 1873.

California at the Vienna Exposition.

EDITORS PACIFIC RURAL PRESS:—The question is now beiug agitated both in the Eastern States and in California, what shall we send to the Vienua exhibition? Iu the East they have many sources to draw from to make a great exhibitiou; but here our resources are but limited. We cannot show what would be our greatest pride to show, the great productiveness of our soil, or the beauty of our climate. Our fruits and vegetables cannot go there only iu a preserved state, and would lose much of their good effects. But I would like to suggest that if it is a possible thing that we send a section of our big trees, say a cross section sawed from some of the largest trees to be found with the bark on, aud from twelve to eighteeu inches thick; it would probably bo a difficult job to get, and would cost much money, but I thiuk there would be plenty to take the job if well paid.

Only imagine a wheel cut from the end of a tree thirty-three or thirty-four feet iu diameter. Would all the other products of the State we could exhibit there, create half the wonder and astonishment that would. That would bring facts to them that they could not deuy. The wonderful size of California fruits, vegetables and other productions have been heralded to all parts of Europe, but by most people they are looked upon as Califoruia yarns aud passed over without thought, but those that hear it from parties they fully credit and believe, do not realize their immeuse size.

Suppose we take thirty feet in length and saw out a plauk, you could cut and cover the wholo gable eud of a two story house thirty feet wide, with a base four feet, first story twelve feet high, second story ten feet and the gable seveu; the width of the plank would reach to the ridgo of the house; by comparison with some familiar object like the house, one will realize the size better than by telling the number of feet.

The good from such an exhibition would not end with the exhibition at Vienna, but could be then exhibited through all the large cities of Europe, and if desirable could soon be made to pay all expenses in a short time. If you think the thiug practicable you can use this as a starter. PIONEER.

Sacramento, Feb. 1873.

NEW CAR-WHEEL LUBRICATOR.—A gentleman in Pottsville, Pa., has received letters patent for a self-lubricating car-wheel, axle and trucks, which when properly adjusted, is said to lubricate without renewal for six to nine months.

Miscellaneous.

Living, a Science.

The mineral matter necessary for the nutriment of plauts has been most carefully studied, and the amount and quality of the mineral ingredients absolutely indipensable to their well-being has been determined. Hence, agriculture is becoming more and more an exact scieuce, and the soil like a machine, to which we can present raw material, confident of the yield and of its quality.

Such being the case, the question naturally arises in some minds, why caunot such mineral matter as is necessary for the maintenance of the human frame be supplied to it in a concentrated form? And may we uot, by altering the proportions, so manage the compositiou of this mineral mixture, as to supply to the system of each, that which it lacks? Acting on this idea, a receut writer proposes a mixture, or "Zoo-tropic powder," which is compounded as follows:

Calcic Hypophosphite	10.
Tribasic Calcic Phosphate	10.
Sodic Phosphate	15.
Calcic Carbonate	10.
Magnesic Hyposulphite	15.
Sodium Chloride	10.
Potassic Bicarbonate	15.
Ferric Oxide	10.
Manganic Oxide	2.5
Potassic Silicate	2.5
	100.00

In making up the proportions for this powder, the author was obliged to determine the proportions of mineral matter in the human frame, when in sound health, only approximately. The inveutor has tried the powder upon himself and his sons, but does not state whether the effects were such as he anticipated.

Theoretically and experimeutally, plants may be made to live and produce by the aid of concentrated manures alone; as in clean sand or pounded glass, supplied only with such mineral manures and artificial solvents, as the various kiuds of plants may require. But such are only hot-house experimnnts. If the same plants, under similar manurial conditions, were subjected to field culture, aud all the varied accidents of climate, insects, fungi attacks, etc., the system would be found utterly impracticable. In order to secure that degree of health in plants that will enable them to successfully resist the casualties of broad culture, some bulky carrier must be employed in which to convey, at least, a part of their food. We find that it is absolutely necessary to mix stable manure, muck or something of that kind with their miueral food.

So with the human frame. It might, no doubt be kept together, aud life sustained, by purely mineral food; but, as in the case of plants above noted, our bodies would lack elasticity and power of endurance. We should havo no power to sustain ourselves in the stir and war of life. The assimilation of food would not keep up with the amount of force expended iu exercise. There is an evident demand for bulk—waste—in the stomach. An opportunity must be given for the organs designed to carry off this waste to do their proper work. Without use they become unhealthy and spread disease all through the system. Nature in her wilds, provides an abundance of decaying matter to accompany the mineral food necessary for vegetable life. The Creator has so constructed the human system that bulk iu food is one of the essentials for the human stomach.

When the earth is forced to yield beyond its natural powers of production, added stimulus, in the way of concentrated manures must be administered; just as such stimulus must be provided to enable the human system to bear up under unnatural effort, either physically or mentally. We may modify, but canuot utterly defy the laws of nature. Hence the true scieuce of living is to keep as close to tho dictates of nature as our artificial modes of life will admit.

FROST CRYSTALS.—The crystalline form, which the vapors of a room assume, while being condensed on the cold panes of a window depend mostly on the surface condition of the glass. A glass plate, absolutely clean and flat, would show uo forms, the frost being equally distributed. The wipiug or cleaning of the window inside the room is usually done in a roundish, spiral, or scroll like manner; heuce the first adhesion of vapor, and the subsequent crystallization (if we cau call it so) follows these lines and produces the well known fern-like or leaf-like forms. But wipe one paue before a frost carefully by horizontal streaks only, and the next to it by vertical streaks; and the frost crystals will be formed in the same directions respectively, much more resembling those of some chemical salts than vegetable shapes. Snow crystals formiug in tho air without any chemical or mechanical obstacles, are always hexagonal, with secondary formations of the same system.

VOLATILITY OF IRON.—Iron is volatile at very high temperatures, the same as gold and platinum. Dr. Elsner, Director of the Berlin porcelain factory, enclosed a small piece of wrought iron in an unglazed crucible and exposed it for several hours to a temperature of at least 3000° C. On removing the cover of the crucible, small needles of metallic iron were easily discerned, clearly showing that iron can be volatilized at high temperatures.

A Novelty in Telegraphing.

Prof. Loomis, of Yale College has proposed something novel in the way of telegraphing. His plan is to telegraph from any given high peak to another at long distance, using an upper stratum of air as a means of electric communication instead of the ordinary wires. The plan as we understand it, is to erect upon such hights a tall tower or mast, the tops of which will be connected with an apparatus capable of geuerating a large amount of electricity which will be carried from point to point along this upper stratum of air. Ground connections will be used to complete the circuit as with wires. It is supposed that the slightest pulsatiou of the electricity of one tower will produce a similar pulsation at the other.

A bill is reported as having passed both Houses of Congress, giviug some special privileges to a company orgauized to carry out this scheme, the object of which is described to be the development of the unutilized principles and powers of natural electricity, to be used in telegraphy, geuerating light, heat and motive power, and otherwise operating machinery run by electricity for any purpose. The uame of Prof. Loomis as its originator is the only thing at first sight that attaches any importance to the scheme.

Cleaning and Refacing Stone.

Mr. Ira Wadleigh, of Charlestown, Mass. has patented a mode of cleaning the faces of cut and other stone, which is described as follows:

For the purpose of cleaning granite, he takes about oue pound of commercial oxalic acid to twelve quarts of cold water, and, by stirring, dissolves it thoroughly. He sometimes uses but three-quarters or one-half the quantity named of oxalic acid and sometimes puts the dry powder on the dampened stone, and adds water—this where there is any unusually tenacious spot. This will clean granite and marble; but for marble he prefers to use one-half pound of commercial chloride of lime dissolved in twelve quarts of water cold. Sometimes, on marble he alternates the application of chloride and oxalic acid. He rubs on both or either of these to the article treated, alternating with the rubbing on of cold water. For granite he also uses one pint commercial sulphuric acid mixed with twelve quarts cold water. This for the first application, letting this stay on the stone treated for three to five minutes. He then removes it by washing the object with cold water; then rubs on with a brush the solution of oxalic acid described, letting it stay three to five minutes, and washing off with cold water. This treatment is continued until the stone is clean.

Oxalates have been used in cleaning stone; but the proportions and manner of applying it heretofore have been quite different. It is necessary that the strength of the acid and the method of applying should be governed by the character, and condition of the stone to be cleaned.

A TRIUMPH OF MODERN ENGINEERING.—The great suspensiou bridge—built over the Niagara river at a height of nearly two hundred and sixty feet above the water, and supported by towers npon each bank, the centres of which are eight hundred feet apart—has proved one of the most satisfactory successes in modern engineering science. The question of its safety having a short time ago been agitated, a critical investigatiou of its actual condition was accordingly made by a company of engineers, and the effect of twenty years' wear and exposure has beeu accurately determined.

In the examination thus made, the caps on the towers covering the cables were removed, and the cables found to be as perfect in all respects as ever they were. But most interesting and important of all was the result which attended a thorough inspection of the anchorage of the cables. The masonry over one of them was removed for about twelve feet, or below where the wires are attached to the anchor chains. A portion of the cable is imbedded in water lime cement. For twenty years this has been so, yet on removing it and rubbing the paint off the wires, the latter were found as bright and perfect as when placed there, the cement having preserved the wire aud anchor chains intact.

A BEAUTIFUL FUNGUS.—A correspondent of the *Scientific American* recently sent that journal a stereoscopic view of a fungus, found growing upon an old auvil block in an unused blacksmith shop. It was of a pure white color, and about nine inches in extreme leugth, seven wide, and five high. The finder cousidering it a thing of beauty and of a perishable nature, coucluded to havo a photograph made of it. It had more the appearance of a picce of marble sculpture than of of vegetable origin, and was much admired by all who saw it. It was pronounced Hydnums corralloides, one of the most beautiful of hymenonomy cetous fungi.

A SUBSTITUTE FOR BORAX.—M. Gauduin has been making experiments to supersede borax, which is generally empioyed in soldering, and the result is that he finds that an excellent flux for soldering iron, and brazing copper and aluminium brouze, is obtained by a mixture of equal parts of cryolit and chloride of barium.

IMPROVEMENT IN PHOTOGRAPHY.—Some genius is reported to have discovered a process of introducing red rays through the frout part of a camera, which is said to improve the half tints of photographs, and diminish the time of taking impressions nearly one-third.

Farmers in Council.

Farmers' Club of Sacramento.

The Club met at the usual time and place on Saturday, Feb. 15th. Vice-President Aiken in the Chair. The minutes of last meeting were read and approved.

J. R. Johnston said he would take occasion to remark that from what he had noticed in the press, the action of tho Club in adopting the Memorial to Congress in reference to the Government assuming ownership and control of the Overland Railroad, was meeting with very general favor among the people. He had noticed that there was a move on foot in England to induce the government there to buy up and manage all the railroads of that country.

The Russian Government was in advance of all others in this respect. The Secretary reported that copies of the Memorial had already been sent to over one-half of the members of Congress including all the Senators, and copies had been pretty generally sent out through the State for signature, with request that when signed, they be forwarded to ono of our United States Senators.

Carrying Trade by Water.

The subject of the carrying trade by water being under discussion, Murphy said he was not prepared to open the question, but would refer to it after some others had spoken.

Rutter said the ocean carrying trade affects alike all the nations of the earth. How joyful it makes a starving nation feel to see a vessel freighted with provisons arrive. Before the war our ocean trade was almost as extensive as that of England, but by reason of the civil war the trade was to a great extent swept from the seas. With all our vaunted enterprise and advantages, we are afraid to compete with foreigners. We must take some of the merchandise of other countries, in exchange for our productions and manufactures, and then ships would not have to come with ballast and carry off our wheat crop. We would not have to pay double freightage. He argued for the removal of the tariff. The free trade doctrine has many opposers. Some say it will reduce wages, but that is not so. On the the contrary, it will increase wages. It would make more business, and the more business the greater the benefit to the people.

Day said he was a free thinker; he did not belong to the railroad company or any other company. The time was when the ocean was the highway of the world. The country is not destined to be disjointed long. He argued that the time would come when the railroad would be built completely around the world, and the bottom of the ocean would be dry high land.

Hoyt argued for the removal of the tariff and for the building of a canal in Sacramento Valley.

Rutter indorsed the proposition of the building of a canal in the Sacramento Valley. He thought the proposition was advantageous to the interior.

Greenlaw thought that the question was not a proper one for the club to discuss, and opposed continuing it for another week. The matter is well enough to talk about, but is of no practical benefit now.

Other members expressed their views on the question at length.

The subject chosen for discussion at next meeting is "The Production and Uses of Jute," and at the request of the club Secretary Hoag consented to open the discussion.

Underground Irrigation.

At the last meeting of the Club Mr. Aiken was invited to explain his system of underground irrigation, and exhibit a model representing the same—and the Club now devoted half an hour to an interesting discussion and explanation of this subject.

The Plan

Is by means of tubes constructed by cutting a groove of say two inches in one side of two 3x4 redwood scantlings, and laying the grooved sides together, one above the other, and placing the same under the ground below the point reached by the plow. Through this tube so made and placed the water is conducted at any distance —but say every two feet the upper scantling is pierced with small orifices by sawing across the lower half of the same—through these orifices the water works out gradually and equally at all points at any distance from the hydrant or point whence it is let in. By means of wooden boxes called wells the course of the pipes and water are changed to any desirable direction, and by means of the same wells made deeper; the water is conducted over uneven or terraced ground so as to be entirely under control of the operator. The ground being supplied once with pipes—(and Mr. Aiken states that this may be done at less expense than to level and furrow the same ground for surface irrigation) it is done for a lifetime. The water is then turned into the main pipe and at once and the same time and with equal force and quantity oozes out of all the pipes in connection. The advantages claimed for this system over surface irrigation are:

1. That the water is applied where it will do the most good at and below the roots of plants or trees — thus inducing the roots to penetrate the earth instead of turning upward as in case of surface irrigation.

2. That in the long run it is much cheaper than surface irrigation, as the ground being once prepared remains so as long as the pipes last, which if good redwood, will be a lifetime

3. That much less water will be necessary as only little evaporation will take place.

4. Irrigation by this system improves the land at all times, as the surface never bakes, and it can be applied at all times without injury to small plants or to trees—that it loosens instead of packing the land as in surface irrigation.

5. That manure may be applied in this way to the soil in a liquid state and directly upon the roots of plants when they may be fed upon it and when it will not be wasted by evaporation—and manure thus applied will not fill the ground with weeds—as in surface manuring, however much the manure itself may contain.

6. That irrigation by this mode will not produce malaria and breed the consequent diseases as does surface irrigation in this or any other country.

7. That it may be applied at any time in the season, and will not breed mosquitoes.

8. That the same system of pipes, that in summer conduct the waters into the soil, will in the wet season drain it out, thus at the same time a complete system of drainage, so necessary in this country; particularly to orchards and gardens.

9. That by this system, every farmer in the State, however high and dry his land, can have as good a vegetable garden as those in the most favorable localities, and can have fresh-grown vegetables all the year round.

The subject became so interesting that on motion of Mr. Adams, the invitation was extended, and Mr. Aiken was invited to repeat it at the next meeting of the club. Adjourned one week.

San Jose Farmers' Club.

Mr. Ware suggested that the Club discuss the question as to how the farmers should proceed in order to procure sacks for the coming crop in the best and cheapest manner. Mr. Ware made a statement of so much of the proceedings at the late Farmers' Union as he was allowed to divulge. He said that they had opened negotiations with the firm of Cross & Co. of San Francisco, who proposed if the Farmers' Clubs throughout the State would agree to take their sacks through them, and advance twenty-five per cent. of the cost, to furnish them at a certain price. What that price was Mr. Ware was not at liberty to state, but it was not as low as he had expected. He himself had sacked his whole crop last year at about thirteen and a half cents; the price proposed by Cross & Co. was larger than this. He further said that there was every prospect of another large crop, and unless the farmers took some action immediately, the "rings" would get ahead of them.

Mr. —— made a statement that the price at the factory at Dundee for 18x36 inch sacks is from eight to nine cents; to this must be added forty per cent duty and freight, which would make the cost here about thirteen or fourteen cents.

Mr. Ware thought as the Oakland factory offered the same price as Dundee, it would be better to patronize our home institution.

On motion, the further discussion of the question was postponed until the Sack Committee should wake up and report.

Mr. Ware was directed to choose another member to serve with him on the Committee.

Mr. Cadwell said that most of the Farmers' Clubs in the Eastern States were uniting in the National Farmers' Congress, and that if we in California desired to come into the organization in time to receive the benefits for the next crop, the Club should take some action soon.

Mr. Cottle said that if it was the intention of the Club to do anything more than to improve its members in the art of husbandry, it would have to make a different organization. At present the Club is not a legal body, and cannot use money; cannot make assessments, nor sue nor be sued.

Mr. Dubois thought the Club had better find out what could be done in the sack line before it proceeded to change the organization.

Mr. Ware said the sack business could be managed under the present organization. The plan to be followed was: that each member should be certified to be such, and he would be allowed to get sacks at the minimum rate. If he was not a member of some Farmers' club in connection with the Farmers' Union, he cannot avail himself of this private arrangement, but must go into the general market for his sacks.

Mr. Herring thought that the requirement of twenty-five per cent. down might work hardship to farmers, as, for instance, in case of failure of crop. He thought the Commission men should not demand any advance.

Mr. Cottle thought it a difficult way of dealing to cause each farmer to go forward to the San Francisco agent, identify himself as a member of a Farmers' Club; state the number of sacks required, and pay a quarter of the price. Many farmers could not come forward in time to avail themselves of the arrangement.

Mr. Hobson said that a large portion of the farmers in this valley are renters and in debt and that rather than borrow the money, they would hold on and take chances on making some other arrangement.

Mr. Ware said that this was no reason why those who were able to make the arrangement should not be allowed to do so. It would do some good this year, and much more next.

Mr. Cottle thought it would be better to have an agent in each Club room in the State so that members could subscribe for their sacks at home, but if they had to go to San Francisco many would neglect it entirely.

Mr. Ware said he wanted to make such an arrangement as would most benefit the Club. For himself he proposed to do the best he could individually. If the Club refused to take any measures for general relief, he was determined to do something for himself.

Mr. Chipman said it was manifestly to the best interest of the Club that some measure should be taken for united action on the sack question. He approved of Mr. Cottle's suggestion for a home agent, as it would enable small producers to come into the arrangement, whereas the smallness of the number of sacks required by some would deter them from going to San Francisco.

Mr. Hobson thought the arrangement contemplated by the Farmers' Union might be entered into with advantage if it was properly conducted.

Oakland Farming, Industrial and Horticultural Club.

The Oakland Farming, Horticultural and Industrial Club held a regular meeting February 14th. After the reading of the minutes, Dr. E. S. Carr, President, exhibited a piece of oxyd of manganese, resembling ore of iron. It was taken from a ledge about 25 miles east of San José, in the western foothills of the San Joaquin Valley, where it is said to exist in large quantities. It is used in a variety of ways, in the manufacture of chlorine gas in getting gold from sulphurets, and largely for oxygen gas for aiding the combustion of ordinary coal gas. The Doctor also exhibited a piece of magnesite, after which he gave his lecture on

"Man and Land,"

Referring at first to the beneficial effect of associations of men and women for the improvement of the mind. He gladly noticed the signs around, that the farmer and others following industrial pursuits were waking up to the importance of their pursuits to the world at large. The agricultural class were the last to organize their industrial clubs, because they were slowest in their movements.

By education and the ballot, the American citizen can maintain his industrial rights. Education teaches men their interests, and how to get them. Demagogues know that men are but bricks and mortar for them to manipulate until they get education. Education adds immensely to every man's capital. There is a chronic quarrel going on between capital and labor. The conditions of the employer and employé must always remain as they are, so long as the latter neglects to educate himself.

Land stands in a different relation than any other property. The State should regulate forestry, drainage, etc. In some countries, tree planting is fostered by government, a policy that might be copied with profit by our own. The State fails in its highest obligation if it fails to attend to the timber interests.

The prosperity of a State may be gauged by the number of its farms in comparison with its population and the extent of its territory. The laboring men have not the power in their own hands to remedy the condition existing between capital and labor, because they do not exert the weapons within their reach to gain the power. Nothing can be gained by force. Honest representatives must be sent to our halls of legislation and associations must be formed.

To make clubs and associations successful, organize all the common sense of the members into a common fund. Whoever thinks he can get along in farming without agricultural books and journals, his style of farming must be out of date. When he met a farmer ploddiug along in the old style, he pitied him, and to show him how he stood he would compel him to farm with the old style farming tools his father used. The last thirty years have seen a greater advance in agricultural science and the arts than the previous three thousand years, and yet they are in their infancy.

The farmers' and industrial clubs of America will do more for the country than we dream of, because they will record and hand down the inventions and experiences of their members. When agricultural education comes to what he had always hoped it will, we shall have a small army of trained observers, but in the mean time we want every farmer and farmer's wife to help us.

How many farmers can tell us the exact cost of a crop. In Germany the government provides 66 experimental farms. Here we have none. The clubs can give us the local facts, and the State Societies can generalize them into valuable facts. Agriculture alone never made a prosperous country. It is the greatest necessity of this country to bring the factory and farmor together.

The entire agricultural products of this State last year was worth $75,000,000, and yet we imported $23,141,000 worth of food for our own consumption. We have been bragging upon our products, and yet last year we imported $363,000 worth of butter and cheese. None of the articles we have imported can be raised better or cheaper elsewhere than here.

The Doctor here gave some statistics in proof of his statement. Think of the stupidity, he said, of our wines and brandies going to other countries and being sent back to us under high sounding labels, at ten times their original cost. The gold products of the State for 1872, amounted to $20,000,000. It is estimated that 50,000 people are engaged in mining. Estimating their labor at $2.50 per day, their wages would amount to $37,500,000.

Ever dollar of gold dug in this State, has cost from one to one and a half dollars. When we consider that our banking institutions are connected with mining interests, we are not surprised that they do not aid our agricultural interests. Under a rational policy from one-third to one-half of the articles imported would have been raised in our State.

Had our agricultural interests received the same encouragement during the last year that stock gambling had, our products would have been increased fourfold. He longed to see the farming clubs bring about a noble class pride. Next to his wife the farmer should cling to his land. Every locality will work out the details of its own wants.

The lecture was profoundly listened to, and was frequently applauded. The committee appointed to report on the best means to exterminate gophers were granted further time.

A number of drawings of patterns of fountains were exhibited and referred to the committee to select one for public use in Oakland.

The reporter of the Oakland daily *News* furnishes the above. Later in the meeting Mr. Bagge, of the committee, reported the memorial presented to the City Council regarding a free market, mention of which is made in another column. It was placed on file and by vote the committee continued to treat further with the city government.

Mr. Bagge also stated that he had during the heavy rains, conducted by a garden hose the supply of water at hand into the squirrel holes on his land, so as to drown out the last one of them.

The name of Wm. Simpson, of Alameda, was presented and unanimously elected to membership of the Club.

On motion of Mr. Dewey, a committee was appointed, consisting of Messrs. Webster, Montandon, Collins and others to meet at Walnut creek the Contra Costa County Farmers' Club, on the following day, and confer in regard to building a narrow-gauge railroad from Contra Costa Co. to Oakland. The subject was fully discussed, and deemed by all to be of the utmost importance. Adjourned.

The next meeting occurs Friday evening, Feb. 28th.

Farmers' Meeting.

About twenty of the principal farmers of the county convened at Pioneer Hall, Saturday afternoon, 15th instant. On motion, A. C. Paulsell was called to the chair, and Wm. G. Phelps elected Secretary. The Chairman, in a few brief remarks, stated the object of the meeting to be the organization of a Farmers' Co-operative Society to engage in mercantile pursuits. He also reported that a committee appointed at a previous meeting to draw up Articles of Incorporation and By-Laws had attended to the duty assigned them, and at the request of the Chair, Mr. Wilkes proceeded to read the Articles and By-Laws referred to. On motion the Articles and By-Laws were received and the committee discharged. Mr. Paulsell stated to the meeting that the middlemen, representing only about two millions of dollars, were making more money out of the products of the land than the farmers who represented five hundred millions.

It was moved that the Chair appoint a committee of ten to solicit subscriptions. The motion was carried. Mr. Phelps thought if the shares were placed at the sum of $25 each the stock would be distributed among all the farmers in the valley—the small farmers as well as the large ones. Mr. Paulsell thought the shares ought not to be less than $100 each. Mr. Hitchcock coincided with the Chairman. Captain Ketchum thought that the farmers were a little tender-footed about everything new that was started, and he believed that $25 per share was sufficient. Mr. Fairchild thought that $100 was little enough. Mr. Phelps said that to make the thing succeed, he thought that shares should be placed so low that every laboring man and every small farmer could take at least one share each. He said that according to the best information he had, no society of the kind in the United States or Europe had succeeded where the shares had been too high. Mr. Fairchild moved that the society do not incorporate until such time as the amount of $100,000 in stock is subscribed. The motion was carried.

The Chair appointed the following named gentlemen a committee of ten to solicit subscriptions: A. C. Paulsell, C. Swain, George H. Castle, Wm. G. Phelps, L. H. Brannock, J. W. R. Hitchcock, James Garwood, George Shannon, W. H. Fairchild and James Castle. It was moved and seconded that the Chair appoint a committee of three to call a mass meeting of farmers to be held Saturday, March 1st, and to procure a place for the meeting. The motion was carried, and the Chair appointed the following named gentlemen said committee: Messrs. Hithcock, Swain and Phelps On motion, the Chairman was added to the committee. The Chairman announced that the books were open for subscriptions, when the farmers present stepped forward and subscribed liberally. On motion, the meeting adjourned.—*Stockton Independent.*

Agricultural Notes.

ALAMEDA.

Home Journal, Feb. 15: Effects of the Storm.—The late storm has left the soil in so unfavorable a condition, that farmers in some localities, have been obliged to discontinue plowing until the present fine weather shall dry it sufficiently to admit of its being worked. Most of our valley lands are already in, with a few small strips yet to be sown.

Good Grazing.—Mr. H. Zimmerman, an extensive sheep owner, reports that grazing in the hills is excellent, the grass in some places being fully eight inches high, and of a quality particularly adapted to sheep feeding.

Tree Planting.—George C. Potter, Esq., is planting over one hundred eucalyptus and other choice trees around his premises at the junction of the San Pablo and Telegraph avenues, opposite the City Hall.

CALAVERAS COUNTY.

Chronicle, Feb. 15: Rain.—It commenced raining Saturday last and kept it up vigorously until Sunday afternoon. Higher up in the mountains snow was substituted for rain and our West Point and Railroad friends have at least a foot of the crystallized vapor to moisten their brogans in yet. The weather has been cold during the week, the air raw and things have worn rather a desolate, 'blue' appearance generally. We can felicitate ourselves, however, with the fact that the snowfall and cold weather are filling the vast mountain reservoirs with an inexhaustible supply of fluid which the miner and agriculturist can draw upon with profit next summer. An immense body of snow has fallen in the mountains this winter and the cold rains have solidified the mass to such an extent that it will remain intact until the dry season is well advanced. We have also had sufficient rain to thoroughly saturate the ground, another guarantee of a plenty of water during the summer months. Despite the cold weather crops are looking first-rate, and the grass is coming on finely. In fact, the prospects for a prosperous season—both from a mineral and agricultural point of view—are flattering. Let it rain—or snow, if it wants to.

Oranges.—Probably a good many of our citizens are not aware that oranges are grown here. In fact we did'nt know it uutil the other day when Mr. Schlund gave us one of the finest ones we ever saw, and informed us that he grew it himself. Mr. Schlund has some ten or a dozen trees in his garden, all of them bearing. Mokelumne Hill, still ahead.

CONTRA COSTA.

Gazette, Feb. 15: Weather.—There now seems to be a settled condition of the elements, after the alternations of showers and sunshine for the previous fortnight; and the surface moisture is rapidly drying off, so that there will now soon be a large breadth of land sown that was already prepared for seeding when the last storm suspended work. At this immediate point the rainfall of the season has been less by two inches or more than at Martinez or in the San Ramou, our total measure being only about nine and a half inches, but coming as it has, so moderately, upon the ground holding a store from last year's surplus, it has been equal in effect to a much larger measure as it ordinarily comes, and the signs of the season give promise of later rains in sufficiency to insure bounteous crops if they escape rust and hot blasts.

The Indications.—Business is reviving. All the signs are cheering, and every one is told that this will be a prosperous year. Well, there is much in ideas. They are sometimes more important than facts. Every indication is highly encouraging for a large crop of grain—the foundation of our prosperity—and there is uo good reason why there should not be a fresh impetus given to business of all descriptions. The croaker is prognosticating a wet spriug which shall injure the crops, but his prophesies are not always realized. The warm, pleasant sunshine after the rain is giving strength and new life to the young grain, and we are inclined to believe the present will be a more than usually prosperous one for all branches of industry.

MERCED.

Tribune, Feb. 8: Stanislaus.—It is estimated that there will be 450,000 acres sown to wheat in Stanislaus county this season, which may be expected to yield four and a half millions of centals, say 25 thousand tons, or about 200 full ship's cargoes—equal to one third the total surplus from last year's crop available for export.

MARIPOSA.

Gazette, Feb. 15: Heavy Snow Storm.—Mr. Galen Clark, from Clark and Moore's, on the South Fork of the Merced, arrived in town on Tuesday last, having left home on Monday morning. He reports the recent fall of snow as being the greatest he has ever known in that region. Immediately prior to the storm of last week the road to this place was entirely free of snow. It now lies at a depth of four feet at the crossing, while on the Chowchilla Mountain, this side, it is six feet in depth. Mr. Clark came on foot to White and Hatch's, where he procured a horse and rode the remaiuder of the distance. Horseback riding beyond that point is out of the question. Traveling to the Yosemite Valley, except by way of Hite's Cove and Bolton's river trail, will uot commence as early as usual, in consequence of this extraordinary fall of snow. Mr. Clark, who is an old mountaineer and speaks from the experience of sixteen winters on the South Fork, says he has never seen any snow storm approaching this one in severity, and that the depth of snow at this place now exceeds that of any previous season since his residence here.

MONTEREY.

Castroville *Argus*, Feb. 15: As spring is fast advancing, and the season approaches when intending settlers will be in quest of homesteads and farms, I deem this an opportune period for placing before the public manifold natural advantages and resources of this town and district.

The ocean just at our door modifies both heat and cold, so that here extremes of either are unknown, while the evaporation from such a surface of water, always condensing and descending in the form of fog or dew, supplies to the farmer the want, while it neutralizes the bad effects of rain. Thus the crops are matured in due season by genial moisture, and the grower is secure from inconvenience and loss, occasioned by unseasonable rain-fall, while vegetation at the same time is constantly promoted and verdure everywhere gladdens the eye. The thermometer, in summer, rarely rises here to more than 60°, but never any higher than 75°. The climate is bracing, and constitution and health are invigorated by continued residence in either town or district.

There are two distinct qualities of soil—that on the rolling upland to the southwest of the town, being what is known as a "chocolate" soil; while that of the bottom lands in the opposite direction, is black and loamy, and loose as ashes. The upland country is well covered with live oaks, but of a parkland character in the distribution of its trees. Water is abundant and pure, and the supply has never been known to fail even in the driest of seasons.

To intending purchasers it is well to observe that the land may be purchased in farms varying in size from fifty acres up to two hundred acres, thus placing them at the command of men of small means as well as those of large means. They have been in possessiou of the Castro family for nearly two generations, or at any rate for full forty-seveu years, and the possession, as well as the boundaries of the lands, have been confirmed by the United States, so that unlike too many other cases, the title here is unexceptionable.

NAPA.

Farmers' Club.—*Register*, Feb. 15: The Club did not meet last Saturday on account of the extreme inclemency of the weather. It will meet at the usual time Saturday [22d] for the discussion of questions pertaining to the good of the organization. It is hoped that the attendance will be large.

From St. Helena.—We learn from St. Helena, that Hon. Seneca Ewer is dividing up a tract of land adjoining that town into lots, and that one is being negotiated for by parties from San Francisco, with a view to establishing a high school. We congratulate our neighbors on the prospect.

NEVADA.

Republican, Feb. 11: Sleighing.—The facilities for sleigh-riding in this vicinity were never better. The roads are opened in every direction, and the snow is well packed and deep enough to give a substantial foundation for runners. To add to the pleasure of sleigh rides here, the temperature is mild, rising in the day time several degrees above the freezing point, and in the night descending only from six to ten degrees below that point—just about right for health and comfort. Good sleighs and horses are abundant, also sleigh bells, and what is still better the ladies kindly condescend to take a ride on every proper occasion. It don't take them all day to fix up and get ready either, as it does the fussy women of other towns where fashion and style take the place of sense and comfort. An instance proving this occurred iu town yesterday where a lady accepted an invitation to take a sleigh ride, got ready in five minutes, and didn't stop to put on her chignon or switch, and even left her new set of false teeth at home. The Truckee ladies do not permit any foolish, worldly nonsense to interfere between them and a sleigh ride.

Storing Ice.—This season thus far has not been favorable for the various ice companies in this vicinity. The Nevada Ice Company, however, have made unusual exertions to obtain a supply, and have been rewarded with fair success. Failing to get a sufficient supply at their priucipal works at Camp 16, near Boca, they have been securing ice at Schaffer's mill and reservoir at Martis Valley, three miles from town. At this point they have been at work night and day for several days past and have stored over 2,000 tons. It will cost them next summer one dollar and a half a ton to freight the ice from Schaffer's mill to the railroad. The Company have secured at their various establishments this season, all told, about 8,000 tons. Considering the difficulties they have had to contend with this winter they have done remarkably well, and they still have hopes of securing a full supply of the needed luxury at their principal ice station—Camp 16. If the weather should be propitious, they will put up at least 8,000 tons more.

PLACER.

Herald, Feb. 15: Farming Prospects in Placer.—A private letter from a farmer near Lincoln, informs us that there is in western Placer probably more wheat sown in that portion than in any previous year, and that everything looks well for a large yield. Grain never entirely fails in that portion of our county, and the yield is never so large as in some other portions of the State, but taking it year after year, and considering that it raises the purest and highest priced wheat in the State, it is not probably excelled as a wheat section in California. Unfortunately it is one of the geese that Stanford, Friedlander & Co. annually pluck. It should have two or three farmers' clubs.

We find the following in regard to the secret societies which are being formed in the East, by the farmers, in the *Sentinel*, published at Pontiac, Livingston county, Illinois.

Farmers' Grange.—This is a secret society, composed of the Patrons of Husbandry, and Lodges are being rapidly organized all over the United States from Maine to Florida, and the organization bids fair to become a powerful instrument in the hands of the farmer, for the demolition of all monopolies that materially effect the sale of the products of the earth. There are now six Granges, or Lodges in working order in the county of Livingston, and it is expected that the number will be largely increased during the winter months.

SOLANO.

Chronicle, Feb. 15: The succession of rainy weather during the present month has sadly retarded farming operations and rendered our roads almost impassable in many places. The bright sunshine of to-day with a light wind from the north indicates settled weather and causes vaporization to take place very fast. Corney's pluviometer records the rain-fall for the winter as follows: October, .04, November, 1.99, December, 8.25, January and February to date, 13.29 inches, total, 23.57 inches.

The farmers in this vicinity are taking advantage of every lull in the storm to break up and seed their ground. No less than eight teams were seen in one small field back of town, to-day.

Messrs. John Brownlie and John Callender have set out three hundred willow trees at the Agricultural Park, ontside of the track. They propose to plant trees around the whole length of the track.

Leland Stanford yesterday went down to San Francisco on the *New World*. During the trip, while in conversation with one of our leading citizens, he stated that he desired that the Vallejo folks should increase the facilities for handling grain at Vallejo, as the Central Company were going to build a railroad from either Davisville or Woodland, up the west side of the Sacramento towards Colusa. The work of construction is to be commenced soon—in time to complete enough of the road to bring the grain crop of the next season to Vallejo. Mr. Stanford said that the company could carry grain cheaper by rail than by water. They were compelled to build this road to carry the grain of that country, as their boats were giving out, and the cost of keeping them in repair was too great to make the grain carrying business by water a profitable one. It is sincerely hoped that Mr. Stanford will carry out the project.

TULARE.

Times, Feb. 15: The country looks beautiful. The farmers are busily engaged in seeding, and a smile beams upon every countenance in consequence of the fine rains. The Narrow Gauge Railroad is the all important topic of our correspondent from Tule river.

Alfalfa.—Mr. A. H. Murray, during the last week in March of last year, sowed about 2½ acres of alfalfa. In June following he cut a splendid crop of hay therefrom. Within three weeks from the time of cutting this crop of hay it had grown again to a hight of nearly two feet, when twelve head of cattle and horses were turned in upon it. From that time on till the rains in December, it continually pastured and kept fat from twelve to fifteen head of stock. Wheu the rain came the stock were taken off and it soon sprung up anew, and at this time the young growth of this season is nearly ten inches high—excellent feed. Mr. Murray is confident that 1,000 sheep can be kept on 100 acres of land sown to alfalfa—ten to the acre. With an improved quality of sheep, furnishing such an enormous yield of wool as is often obtained from the Merino, the Cotswold and the South Down sheep, the wonderful profits of growing alfalfa and grazing sheep thereon, can be readily appreciated. We consider that ere long the sheep interest will become the chief interest of this portion of the State, and that alfalfa is destined to play a very important part in the development of this industry.

Delta, Feb. 13: Fresno.—Several large landowner's between King's river and San Joaquin are commencing to farm in a sensible manner. Having first secured water for irrigation, they have been putting in large crops of grain, and are making preparations for crops of cotton, planting trees, and extending experiments in every direction. They have from time to time met with the most strenuous opposition in their water rights from a few old settlers, who undertook by unfriendly actions, and even violence, to check the progress of civilization and emigration. The enterprise of these men is bound to succeed. They take no chances of failure.

SAN JOAQUIN.

Independent, Feb. 11: A Valuable Table Grape.—Mr. W. B. West handed us yesterday a sample of what is kuown as the Black Fararo grape, the fruit apparently in as good a state of preservation as when it was plucked from the vine. The bunches naturally grow to a large size, and will weigh from four to six pounds each. The berries are about the same size as the Black Prince, and the flavor is good and improves by keeping a while after gathering the fruit. Mr. West thinks the fruit is best for use in the month of January. The sample shown to us was kept in a box—just thrown in without any particular attention having been paid to packing. It is the best preserved sample of grapes we have seen this season. The variety is valuable for table nse at a season when all other kinds of fresh grapes are out of the market.

To say that the farmers in this vicinity are hopeful, and that the farming prospects are good, conveys but a fair idea of the situation. Under the genial influence of the warm sunshine with which we were favored during the past week a few suffered their spirits to rise to an undue hight, and indulged in prognostication of coming prosperity that were a little extravagant; but now the storm has come again, and this undue exuberance of spirits have subsided. Like the philosophers, those who had such "great expectations" have concluded to "let well enough alone," and be guided by the force of circumstances. A much larger average has been sown than in any previous season, and in many places the grain is up and growing vigorously, giving promise of an abundant yield. We will have enough, and to spare.

VENTURA.

Signal, Feb. 8: The Rains.—During the past five or six days we have been blessed with a bountiful supply of rain. The fall here has been 4.15 inches, making about 8½ inches this season. This will insure excellent crops, if we do not have another shower, which is not likely, as we generally have more or less spring rains.

A ride up to the Ojai this week showed us many of the finest wheat fields we have ever seen in this State. Nearly all sowed early there, and the consequence is that the crop was never more promising. Rain or no rain, the Ojai will likely make a larger and better crop of wheat than ever before.

OREGON.

Sentinel, Jan. 27: Times are rather lively at this point, owing to the shipment of coal and lumber. About fifteen vessels per month, on an average, clear for San Francisco. The coal fields are quite extensive, the certainty of which time will fully prove. We have three companies at work at present, and one, if not two more, will be in operation the coming summer.

There are three sawmills on the Bay. The one situated at Marshfield has been idle for more than a twelvemonth, and is by far the best of the three.

Timber near the streams, suitable for loging purposes, has been culled over to a considerable extent, but at a little distance from the streams are some of the grandest forests of the world, untouched.

So far the winter has been unusually mild, with but little frost and no snow. The rains have not been as plentful as common, and upon the whole we have a beautiful and quite healthy climate.

WASHINGTON.

Walla Walla *Union*, Jan. 25. Good Stock Country.—Mr. Jos. Freeman informs us that he has eleven hundred head of cattle running on the north side of Snake river, between the Palouse and the Columbia. They have wintered there thus far without being fed. They are in fine condition and not one has died. There are hundreds, and perhaps thousands, of other cattle in that country that are doing equally well. There has not been an inch of snow during the winter. That certainly can be called the champion stock country. Mr. F. says he has hundreds of head of steers that are in fine condition for beef; and he will have from three to four hundred head of calves this spring. So far as we have heard he is the heaviest stock raiser in this Territory.

Stock.—During the last two or three weeks the warm rains and sun has given the grass a good start, and stock is doing well. No one pretends to feed their animals, except milch cows and work horses. A few more days of warm weather will settle the feed question for the balance of the winter.

Fruit.—Thus far, there has not been much damage to the fruit crop, in prospect, except apples, and in some localities it is thought that if it be seasonable from this time forward, there will even be a fair crop of apples. It is feared, however, that if this weather should continue as warm as it has been for some time past, that the fruit buds will be pushed forward so fast that they may be nipped by a late frost.

Farming.—Just now the farmers are very busy putting in their early spring crops. People at a distance may think our people are forcing the season a little by making a spring month of January, still no one cares provided they can succeed in doing this. There are now thousands of acres that have been plowed within the past month, and a large amount of spring grain has been sown—principally barley. All kinds of grain look well, and as the farmers think the prospects for good prices are better than last year, they are preparing to raise far larger crops than ever before. It now seems impossible that we should not have an abundant harvest. The only possible doubt is with regard to prices.

Olympia Transcript Feb. 8: Sensible.—The farmers on the Luckimute, in Oregon, have organized a farmer's club, and resolved that no member shall sell his wheat at less than seventy-five cents per bushel, and not at that until he has first given the club the privilege of purchasing, should a member become necessitated to sell it at a low rate, the club will advance him the money, and take his grain as surety, till it brings a better price. If the farmers all over the country would do the same, low prices would be at an end.

Home and Farm.

Farm House Chat.

BY MARY MOUNTAIN.

The reports from Farmers' Clubs in last Rural are so "alive" they set my pulses thrilling; and it is easy to imagine that the agricultural brain may be glowing, stirring, swelling with fresh thoughts and a delightful springtime force of ideas equaling the busy energies of dame Nature herself.

How I would like to believe that it is so; that farmers will finally grasp and hold at least a fraction of the sturdy independence about which so much has been said and sung. The idea "free and independent farmer" who lives and whistles his merry life away in song and story, I have never met in California; and if all this earnest clubbing cannot turn us out one of that pattern, it should certainly show us a few who can make a fair living and own a quarter section free from debt and mortgage.

I want to see farmers look better than they do—dress better—carry themselves with as much easy grace and confidence as though they felt in every muscle that handling the plow, the shovel and the hoe is just as dignified and gentlemanly as measuring dry goods, dealing physic, reading law or managing "rings." Mr. A wants to go to town and says it wont pay to change his clothes—"a farmer ain't expected to look like a gentleman you know"—so away go the patches, the dirty coat and the slouched hat. It also did not "pay" to clean off the horses, or the wagon, and thus the whole turnout is just as you see it. While driving along the country roads there is not much sense of loss; but when farmer A begins to transact business with merchants, lawyers and county officials, he feels his shabbiness clear to the toes of his dirty boots; and in some sensitive natures the mischief of this disadvantage can hardly be computed. If we give farmer A credit for a fair share of refinement, it is plainly evident that in various business matters he cannot "put the best foot forward," or assert himself with ease and satisfaction. His best suit of clothes would have made better bargains, would have given a sense of freedom and enjoyment, a higher tone of manliness and perfect security from the slouching manner that invites snubbing.

Let all the A's and B's duly consider this matter and decide whether it does not "pay" to command ease and self possession for business and social purposes. * * * * * *

When I go to town with my box of eggs I must ask weekly—"What will you give for eggs to-day?" But my gentlemanly clerk does not hold out his tempting calicoes and ribbons and ask what will I give. I must take perhaps for my eggs a price so small as would hardly encourage Madame Cluck to continue that branch of home manufacture; and I must pay for my dry goods such profit as may be asked.

Now that farmers are striving most justly to obtain better returns for labor, and a fair proportion of the profits in commercial exchange, why should not their wives "strike" for the control of the egg business? When I sell here for 25 cents, the San Francisco consumer pays 50 cents. Do so many break on the way that they must finally get themselves into hot water at such a price?

I fear some of those eggstraordinary "middle men" are mixed up in this business. And what shall we do about it? * * * * *

It has done my soul good to read the rousing appeal of S. M. G. to the farmers of Stanislaus county. If they fail to respond to that, perhaps they'll deserve to be "sacked and bagged" so long as grain grows or "rings" run.

Good Location for a Woolen Factory.

Eds. Rural Press:—There is near this place a good water power, which can be made useful for manufacturing purposes. Russian River runs through a pass or cañon, and it is the opinion of many that it can be used to advantage. The party owning the land, alongside the river, offers to give what land is necessary and all the right to the water power, to any one or company, that will erect a woolen mill. The citizens generally, especially those in business, will donate money to any taking hold of the enterprise.

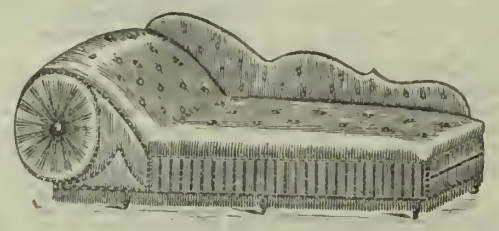
You no doubt are familiar with this section, its natural advantages, etc. In the hills around us the stock ranges have many sheep, the number of which is yearly increasing. Also in Mendocino County, wool-growing is one of the important industrial interests. Our proximity to San Francisco, the abundance and good quality of the water, the cheapness of fuel and the large quantity of wool grown in this section, make the enterprise of establishing a woolen mill here a promising investment. We have no doubt that if some good men will take hold of the offer made by the gentleman, owning this property, the citizens here will donate to help forward the enterprise. If you know of any parties desiring to make such an invesment, you will please inform them of the proposition, or if you can communicate any suggestions, we will be pleased to hear from you. As you are somewhat interested in this department of business, we hope we do not trespass too much upon your time. Canan, Hutton & Smith.

Healdsburg, Feb. 7th, 1873.

Here now is an opportunity for capitalists that should not be overlooked. It is not a water power, away up in the Sierras where no one lives and no one wants to, for there are a thousand such in California; but situated in the very midst of the most fertile lands of the State, in Russian River Valley, a valley unsurpassed in its productions of all the great agricultural staples, including corn, wheat, wine and wool, with forests of fuel and timber unequalled and a railroad penetrating to the heart of the valley, offering inducements that ought to secure immediate and favorable action on the part of manufacturers wishing a desirable location.

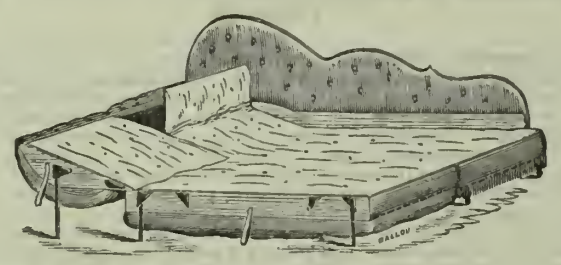
Pratt's Improved Bed-Lounge.

Bed-lounges are always convenient in small houses, either in the country or city, and, in fact, sometimes are found quite handy, even in large buildings. In case of an extra visitor, some of the family can give up their rooms and sleep on the lounge, or children can be put there in the nurses' room. The two cuts shown on this page give an idea of an improvement in this direction, which is now being introduced on this Coast, and which has been in use extensively in the East, especially in large cities where rents are high. The



BED-LOUNGE SHUT.

lounge is upholstered the same as ordinary lounges, and, when folded, there is no perceptible difference. The circular part of the head is made hollow, to form a receptacle for the bed-clothes; but when thrown upon the headpiece has a suitable inclination for comfortable sleeping. There are springs throughout the bed, covered with heavy canvas, and the bed is



BED-LOUNGE OPEN.

wide enough for two persons to sleep comfortably.

When used as a lounge, the legs can be folded in, out of sight, and it then presents the appearance of an ordinary lounge. Settees or sofas are constructed on the same principle as the lounge, and made in such a manner that the casual observer would not notice that they served a double purpose. These articles of household furniture, combining as they do, both the useful and ornamental, are durable and well made. Wiester & Co., No. 17 New Montgomery street, have the patent-right of the Pacific Coast for sale, and parties desiring further information can call on them and get particulars.

Preserved Flowers.—We saw this week a beautiful wreath of preserved natural flowers, enclosed in a handsome frame, which looked as natural and fresh as when culled from the parent stem. The wreath is made up of camellias, heliotropes, lilacs, geraniums, verbenas, orange blossoms, etc., all perfectly tenacious and showing no liability to fall apart. Camellias, we think, have never before been preserved, but the operation has been performed so successfully in this instance that they will hereafter, no doubt, have a conspicuous place in preserved bouquets and wreaths. We have in California many beautiful wild flowers, which for richness of coloring and delicacy of tint, are unsurpassed, but unfortunately they wither quickly when plucked, so unless one sees them "on their native heath," their brilliancy is much impaired. By the chemical process by which the wreath mentioned was preserved, these flowers could be seen in all their native glory by preparing them immediately on the spot, and we are surprised that attempts have not been made in that direction. The wreath spoken of was made by Mrs. A. O. Cook, in April, 1872, and will shortly be placed on exhibition at Woodward's Gardens, where all such curiosities of merit readily find an appropriate nook.

Jute Culture.

We have received the following note—with accompanying letter—from Hon. E. Casserly, which will be found of interest by our farmers and manufacturers:

United States Senate Chamber,
Washington, Feb. 5th, 1873.

Eds. Rural Press—*Dear Sirs*: I send with this, the letter of E. H. Derby, Esq., of Boston, on the Jute question, in answer to a letter of mine making inquiries of him on the subject. Mr. Derby has devoted much time and attention to Jute growing in the United States. What he says, therefore, is of much more than ordinary value. Yours truly, E. Casserly.

46 Court St. Boston.

Hon E. Casserly—*My Dear Sir:* Your favor of the 28th ultimo, respecting the Jute plant is before me. It gives me pleasure to reply to your inquiries, for I take a warm interest in the introduction of this plant into our country, and agree with you that it must be of great importance to California in consequence of her great success in producing both wheat and wool My article for the Agricultural Report was written late in 1871, but was not published until last spring; since I wrote it I have received another letter from India, visited the Jute mills of Scotland and received many letters from Southern planters, who are succeeding in the culture of Jute, and have made them the basis of another article, which will probably appear in the Report of the Department of Agriculture for 1872. I think the Department is right in recommending the sowing of the seed in drills although the ryot of India still continues to cast his seed upon the ground broadcast. Wheat does best in drills and so I presume will Jute, unless the rows are so far apart as to give undue development to the plant. I learn, both from Scotland and India, that the, plant attains a hight of eight to twelve feet, ripens in three to four months and must be harvested after it attains its hight and before the seed is ripe, otherwise the fibre becomes coarse and brittle and is not easily separated from the bark. I learned from several planters that it succeeded admirably the last summer in Louisiana as well as Texas, that the seed planted in March ripened in July and that a second crop planted in July in the same field ripened the same season. It is computed that it will yield ten times as much fiber as cotton and with two crops in the same year twenty times as much in weight as cotton. It is the cheapest fiber produced. There are two qualities of fiber produced from each plant, for two feet from end of plant the fiber is coarse, the residue fine; the coarse is used for bagging and carpets and the fine is used as a sub titute for hair, or is spun into a fine thread and interwoven with thread of silk, wool and cotton or twisted therewith.

It is a profitable crop in India and is fast increasing. and gains rapidly on cotton. I think it will grow well in your southern counties. I noticed at Dundee that when the bales were unpacked the fine jute was separated from the coarse, and then piled up in layers several inches thick, and then sprinkled freely upon each layer, first with oil and then with water—it was then carded and spun.

If the plant succeeds, as I trust it wil in California, I recommend you to send to Dundee for a few experienced spinners and several sets of machinery, for the mechanism is rather peculiar, and it will be wise to profit by the experience of Scotland. Some jute is manufactured near us in Charlestown and Salem, but I doubt whether our machinery is as good as that of Scotland. Quite a demand has sprung up in Louisiana for seed, and it is held there at two or three dollars a pound. A friend of mine expects a ton of it from India in February, and has sold half or three-quarters of it to arrive at half a dollar a pound, which he thinks will give him a large profit. It will give me great pleasure to respond to any further inquiries as to jute, and to promote as far as I can the introduction of this valuable plant into this State.

May it take the lead in the culture of jute as it has in that of the three W's, wheat, wool and wine.

Allow me to add that in a recent conversation with my friend, Donald McKay, the eminent ship builder of our city, we came to the conclusion that the time had come for California and Oregon and Washington Territory to avail of the recent acts of Congress and use your excellent timber to build ships which would at this time earn more than half their cost in one trip with wheat from the Pacific Coast to England. E. Hasket Derby.

Plano, Tulare County.

Editors Rural Press:—Look out, farmers, there is danger ahead. I see, neighbor, you are getting so absorbed with your efforts to make business pay, that you will soon become unable to think of anything else. It is one of the laws of nature, as you may see by observation, that if we use any particular muscle of the body more than another, it will not only grow stronger, but call for more of our time to exercise it, and will complain, like a spoiled child, should we cease giving it the extra attention that it has been having. That is just the way with all—the body and mind together; if you cease to study, and depend entirely upon physical exercise, that is, work the body without brain-work, in a few years at most we will find a growing dislike for study.

Now, that is the trouble with our farmers; there are enough of them in number to control everything in this country; they could say what laws should be made, what freights railroads shall charge, and what price citizens should pay for their produce, if they had more brain, or used what they have more, for the only reason why citizens control the farmers now is because they are trained to think that they, as a class are more intelligent; and when I ask what shall be done to save the farmers from the railroad monopoly, "city rings," etc., the natural law answers in voice of thunder, *educate* them; there is no hope without that — teach them to work less and think more.

Now, for instance, here is a community that ought to support a Farmers' Club of some 25 members, where the best means of raising and marketing all kinds of produce should be considered; where the price of freight, etc., should be decided, with the thousand other things affecting our interest, not enough attendance to make a decent showing for a club. Those who are most intelligent work too much, are too tired on Saturday night, are afraid it will not pay; the same with their reading—hard work makes them disinclined to read. So, if they do not take and read as many agricultural journals as they should, how can they expect their children to stay by the old homestead and like farming, if by example and the influence of farm-literature they are not taught in their growing day? Farming should be an intelligent, agreeable science, instead of the monotonous drudgery it is usually made to be. Farmers—even if you have become too old in your way to change to reading, now do not fail to have a variety of farm journals on your table for the children, and give them plenty of time to read, for "all work and no play makes Jack a dull boy;" and who of you wants his boy to be dull?

Tuesday, February 4th, 1873.

The Rain.

We have just had another fine shower, making 1¼ inch in the gauge, and, like the other, it was so quiet, with so little wind, that it will be greatly favorable to the crops, which are doing finely. Of grain, the promise continues good for a large yield, though of course much depends upon the spring rains.

Peas are not only in full bloom, but have many pods on them completely filled, ready for table or market, of the different kinds planted—early Dan O'Rourke takes the lead for earliness, while Machan is more productive, and next to it, Caractacus. Of Potatoes, the volunteers that came up, have none of them, even in the lowest places, been touched by frost this winter but the planted crop has not made its appearance above the soil yet.

Snap Beans have been planted about three weeks; are sprouted, but seem slow about coming up. Bush Squash, Corn, Melons and Cucumbers, I planted to-day.

Settlers still come, but to those who have not started, I would say if they want chickens, when they get here it will be best to bring them along, for people have the poultry fever so bad that stock of that kind can hardly be had for love or money, though I did hear to-day of a neighbor who let one dozen hens go for two dollars, and was very sorry for it, as the purchaser went to the next ranch and paid twelve dollars in gold for nine hens of the same common stock.

Lumber—the road to the Tule river pinery is nearly completed, and it is now reported that two sawmills are to be put up, and lumber sold cheap.

Monday, February 10th: Another rain storm began, with a heavy blow and dash; on the night of the 8th, followed by showers on the 9th, making up to date, one-half inch more in the gauge.

Could you not give your readers an article on carbolic acid, that would be useful and interesting, stating the price at which it could be procured in the city, different uses to which it may be applied, with particulars as to application, on the farm and about the chicken house.

Isaac B. Rumford.

Useful Information.

Curiosities of the Boston Ruins.—Although it is more than two months since the great fire, the rains and snows of winter have not succeeded in entirely quenching it. In many parts of the burnt district dense columns of smoke are still ascending, and bright flames dart out from beneath piles of brick and granite. The influence of heat upon various kinds of merchandise found among the ruins has afforded examples of metamorphosis interesting and curious in a high degree. Huge piles of leather in some cases were precipitated into cellars, and so covered with *debris* as to undergo a kind of dry distillation, or fusing out of contact with air. The resultant mass resembles a dry gum, with a clean vitreous fracture, upon the surfaces of which are seen the lines between the hides, like thin strata in a mass of silt. We have a lump of coke, produced from *clover seed*, which closely resembles cannel coal. It came from a mass of two thousand bushels which tumbled into a cellar, and was subjected to dry distillation under the bricks and mortar. Many other substances have undergone curious changes, and we may allude to some of them at a future time.—*Boston Journal of Chemistry.*

Durability of Wood.—We expect wooden buildings to decay, and if they endure for a century or two they are regarded as venerable specimens of antiquity. The First Baptist meeting-house in Providence, R. I., a fine architectural model is said to be as sound, even to the top of its lofty spire, as when first built, though nearly a century old. But this is a young infant compared with some European churches. The trusses of the old part of the roof of the Basilica of St. Peter's at Rome, were framed in 816, but when carefully examined in 1814 were found to be perfectly sound and good. They were made of fir, and have lasted over a thousand years. The domes of the church of St. Marks, at Venice, were built nearly eight hundred and fifty years ago, and the outside timbers are yet good. Brick and stone could hardly last better than such woodwork.

Timber cased in plaster and in iron, however, has developed a very dangerous kind of dry rot.

How to Clean Paint.—A chemical journal gives the following advice: Use but little water at a time; keep it warm and clean by changing often. A flannel cloth is better than cotton. Be careful of soap. Put but a little soap or skim-milk in the water; add soap to the cloth when needed. A sharp piece of soft wood is indispensable for the corners; the point will become like a paint brush. A saucer of sifted ashes, used where paint is badly smoked or fly-specks are thick, is better than soap; wipe last with clean wet towel, and don't spill a drop of water. Never put soap on glass unless it can be well rinsed, which can never be the case with windows; wash off dirt in clean warm water and dry; then, with a paste of whiting and water, and with a little cloth, place a little in the centre of each pane. With another cloth rinse over the glass; next rub off with a dry cloth till the window shines like crystal."

Manufacture of Mad Stones.—A Virginia paper says there is a man in that State who is engaged in the manufactory of mad stones for the cure of hydrophobia. The original madstones were brought from France and Italy, and have the appearance and the weight of the more porous kind of bone. The domestic manufacturer gets the bone itself, and saturates it with some chemical or other, and sells small bits of it at $5 each. Besides its virtue as a relief for hydrophobia, the bone is said to cure tetanus. "The cases of lock jaw," says the Virginia Editor, "are too few to make this discovery important. Can't some one invent a cure for *limber jaws*? They cost the State a great deal."

To Copy Manuscripts.—Press copies of old letters or manuscript can be taken by pressing the pages on the damp paper in the usual way, and then applying the vapor of ammonia. Although no result may appear to follow the first operation, we are assured that after the second, the letters will appear distinctly on the dampened blotting paper. Another method consists in dampening the manuscript with a solution of sugar, honey, or mucilagenous matter, and then applying applying the dampened paper as heretofore. In this case the sugar is applied to the paper instead of being mixed previously in the ink, as is done in one form or other with ordinary copying inks.

Harness Dressing.—Long continued observations show that harness and other leather, exposed to the action of ammonia contiuually given off in stables, becomes weak and rotten sooner than other leather. Even when care is taken to protect it with grease, this takes place. Professor Artus recommends the addition of a small quantity of glycerine to the oil or fat employed in greasing such kind of leather, asserting that it keeps it always pliable and soft.

Carbon-Paper.—The "carbon-paper" used for tracing and in manifold writing, is made by filling the pores of soft unsized paper with lamp-black. Oil—castor-oil or lard—is mixed with the black, and as much is rubbed into the paper as it will hold, and all that is superfluous is wiped off with soft cloths.

Palm Wine.—The sap of the palm tree runs quite freely from an incision through the bark. It is put into skin bottles, or rather bags, by African wine-makers in which it undergoes a slight degree of fermentation, and is soon ready for use. Every time the month of the bag is untied for taking a drink, it foams and sputters very much like spruce beer. Although all the gas may escape, shortly after being tied up again there is another volume ready to fizzle as before.

Christian travelers are quite as fond of palm wine as natives. Without being much of a stimulant, it has a relish that meets the demands of the system in a hot climate far better than any other drink. Of course it is in universal demand, and costs nothing but the labor of gathering the sap from the nearest tree, without asking leave.—*Southern Homestead.*

Removing Paint from Windows.—Inexperienced painters, when painting window casings and sashes, frequently spatter paint in minute dots over the surface of many of the panes, where it is left until it becomes dry and hard. Neat workmen always have a clean cloth or sponge, which is dipped in a little spirits of turpentine, and the paint is rubbed off before it is dried. After the paint has become dry and hard, strong soap-suds will not remove it without a vast deal of hard rubbing. The most economcial way to remove dry paint from the panes is to make a small swab, having a handle some eight inches long, dip it in a little diluted oxalic acid, and rub off the paint with the swab.

The Babylonian Willows.—The *Journal of Horticulture* says: "The willow which grew 'by the waters of Babylon,' whereon the mournful children of Judah hung up their harps, was not, as Linæus and others have supposed, the *Salix Babylonica*. It is now thought to be a kind of poplar. The ordinary weeping willow has been brought from China and Japan."

In this connection we may remark that the *Gardeners's Monthly* points out the absurdity of the supposed origin of Pope's Willow at Twickenham, which was said to have come from an old hamper basket which was found along the Thames, and had come from the Mediterranean. Any one ought to know that no basket ever was made of the weeping willow.

Trellis Columns.—Telegraph posts and columns are manufactured in Manchester of spirals of iron—ribands, in fact, supported on a cast-iron base, and surmounted with a capital of the same material. A slender rod forms the axis of the column, or, as it really is, a trellis-work tube. Compared with cast-iron columns, these structures are little more than one-third either in weight or cost, while in appearance the gain is decidedly great. For conservatories or other horticultural purposes the trellis column is very suitable. Such a pillar, eleven feet high and eight inches in diameter, is guaranteed to support a vertical pressure of one ton.

American Implements in England.—It is an interesting fact that Philadelphia is now shipping saws to England. Shoemakertown, on the outskirts of Montgomery county, and a few miles from Philadelphia, also sends hayforks, dung forks, and pitch-forks to Sheffield, England, the very centre of her iron and steel manufactories, while Ames shovels from Massachusetts supply England and the rest of the world. American ingenuity has so improved the quality and cheapened the cost of these implements that the tide is turned—we send to England instead of getting them from there.

Killing Knots. — Glue size and red lead Gum shellac dissolved in alcohol, and mixed with red lead. Gutta percha dissolved in ether. But through all or any of these will the pitch of the knot exude if exposed to the sun. Perhaps the very best method is, to size the knot with oil size, and then lay a leaf of gold or silver on it. In a very choice piece of work, a hot iron may be held over the knot till a good portion of the pitch has come out and been scraped off, when the two coats of the leaf will be sure to keep out both the pitch and any discoloration.

Indelible Ink.—The French Government, it is reported, has just purchased the secret of the composition of an absolutely indelible ink which resists the action of every known chemical agent. This ink will accordingly not only be used on all stamped paper in the postal service and the revenue service, but in the recording of all acts of the Assembly; it will also be sold with stamps in all the small shops.

Sweet Fern for Tanning.—Thousands of acres of land in Michigan are covered with a growth of sweet fern, which has hitherto been supposed to be worthless, but it has been found that for tanning purposes it is unequaled, and that it yields forty per cent extract, while hemlock yields but fourteen. It promises to be very valuable.

Artificial leather is made in accordance with an English patent by a mixture of one part of glycerine to three of glue. If flexibility is desired, boiled linseed oil is added, if elasticity, a solution of caoutchouc. The mass is placed on a fabric and pressed, then washed with a solution of chrome alum.

To Prevent Ebullition.—In order to prevent ebullition of boiling liquids a small fragment of sodium amalgam or of sodium tin, is added, when the solution is acid. The efficacy of these depends on the evolution of a small amount of hydrogen during the process.—*Dingler's Polytech. Journal.*

Good Health.

The Value of Borax in Colds.

Dr. J. W. Corson, of Orange, N. J., has published some interesting notes on the use of borax and nitrate of potass, in aiding the voice, as sometimes required by singers, clergymen, and public speakers. The value of nitre, or sal prunelle, has long been recognized, and if it is increased by the aid of borax the fact is worth knowing. Dr. Corson sums up the result of his inquiries as follows:—

1. That in sudden hoarseness or loss of voice in public speakers or singers, from "colds," relief for an hour or so, as by magic, may be often obtained by slowly dissolving and partially swallowing a lump of borax the size of a garden pea, held in the month for ten minutes before speaking or singing. This produces a profuse secretion of saliva, or "watering" of the mouth and throat. It probably restores the voice or tone to the dried vocal cords, just as "wetting" brings back the missing notes to a flute when it is too dry.

2. Such "colds" may be frequently broken up at the very commencement; and this restorative action of the borax to the voice may be materially aided by promptly taking the evening previous to a public effort, dissolved in a glass of sweetened water, a piece of the nitrate of potass, or saltpetre, a little larger than a garden pea, on going to bed, and covering with an extra blanket. The patient should keep warm next day. This both moistens the throat and further relieves the symptoms of cold and slight blood poisoning from suppressed perspiration, by reopening the millions of pores of the skin more or less closed by cold.

3. These remedies have the three recommendations of being easy to obtain, convenient to carry in travelling, and perfectly harmless.

Use of Cold Ablutions in Fever by the French.—In a valuable article contributed to one of the French medical journals by Dr. L'Ambert he presents the following conclusions concerning the use of cold ablutions in fever, as practised in France: They are especially useful in typhoid and the eruptive fevers, and strongly indicated in malignant cases. They act upon the chief and most constant phenomena of these diseases, are especially anti-febrile, and reduce temperature materially. They favor the re-establishment of a full, profound, regular perspiration; render the secretions more active; make the skin supple, moist and fresh, favor the outcoming of the eruption; allay cerebral and other nervous excitement, suppressing headache, coma, delirium, restlessness and inducing sleep; cause the pulse to fall from eighty to thirty-beats. From two to eight hours is the duration of their action, the ablutions to be repeated two to four times in the twenty-four hours. They have no influence upon the length of the sickness, but render it milder, and are readily applied as cold baths or by wrapping the patient in a cold wet sheet.

Chloroform in China.—According to a reputed discovery by M. Stanislaus Julien, it appears that as far back as the third century of our era, the Chinese were in possession of an anæsthetic agent which they employed in the same manner as we use chloroform and ether, for producing insensibility during surgical operations. A description of this was discovered by M. Julien, in a work preserved in the Bibliothéque Nationale — called "Kou-kin-itong," or a "General Collection of Ancient and Modern Medicines," which appears to have been published in the sixteenth century. In a biographical notice of Hoa-tho, who flourished under the dynasty of Wei, between the years 220 and 230 of our era—it is stated that he gave the sick a preparation of *chanvre* (Indian Hemp), "Mayo," who in a few moments became as insensible as one plunged in drunkenness or deprived of life; then, according to the case, he made incisions, amputations, and the like. After a certain number of days the patient found himself re-established, without having experienced during the operation the slightest pain. It appears from the biography of Hoa that this *chanvre* was prepared by boiling and distillation.

Furnaces for Heating Dwellings should never be made of cast iron as is generally the case, for the reason that the unhealthy gases of combustion—carbonic acid and carbouic oxide readily permeate such iron when hot, and are thus distributed through the dwelling to the great detriment of health. The furnace should be made of wrought iron exclusively—boiler iron through which when properly put together, scarce a trace of those deleterious gases passes. The expense is greater, but not sufficient to outweigh the health consideration. Wrought iron furnaces are largely supplying the place of cast iron ones in our Eastern cities. In cold countries, especially, this matter, as a sanitary question rises to great importance; and, indeed, it is quite time that more regard was paid as to the character of the air we breathe in our dwellings, school rooms and public buildings.

Lead-Poisoning.—A manufacturer of red lead, in France, saves his workmen from disease by obliging every man to drink a quart of milk a day. Instead of one-third of his men being on the sick-list, he has not had one case in eighteen months.

Reward for a Cholera Specific.

During the cholera epidemic of 1849, a prize of one hundred thousand francs was offered by M. Bréant, of Paris, for a specific remedy for that dreadful scourge. The attraction of this reward elicits every year most useful and interesting studies, but hitherto no one has solved the problem expressed in the following terms: Discovery of the means of curing the Asiatic cholera, or the indication of the precise causes of that dreadful disease. Every year, the Academy has to bestow some kind of encouragement on authors of very learned and useful memoirs on that question, but it is useless to say that not one has yet been found worthy of the principal prize.

Among others M. Thologon, a military doctor, has been rewarded for his essay on the new origin of Asiatic cholera. He argues that cholera, although of Asiatic origin, may, nevertheless, begin and develop itself in Europe, and he instances the outbreak of 1852–1855, which spontaneously originated in Poland. This is a point of great interest, as it is a matter of much controversy among medical men of undoubted learning. M. Bouillaud, one of the Academicians, although disputing the accuracy of the author's conclusions, passed a well-deserved eulogy on M. Thologon's researches, and summed up the Academy's sentiments on that question in the following words: There remains for our civilization the difficult but glorious task of tracking the monster to its cradle, or rather to its lair. We are still awaiting the advent of the *Hercules*, on whom will devolve the glory of so noble, so meritorious, so divine a work; but it is to be feared that in our day no such demi-god is likely to manifest himself.

Killed by Kindness is a phrase which has just been lamentably illustrated by statistics in England. Who would have believed, save upon the authority of the great Dr. Lankester, the London coroner, that not less than 3,000 tender infants are annually smothered to death by their mothers who fall asleep in bed while nursing their pledges? Unfortunately, mothers involuntarily kill their children in a great many other ways—by absurd indulgence in diet, by foolish exposure in dressing, and through utter ignorance of the laws of the human system. The only wonder is that the race, or at least the so-called civilized portion of it was not long ago utterly exterminated. Babies are called tender; it strikes us that they are remarkably tough.

Removing a Foreign Body from the Nose. A case is related of a child from whose nose, when the surgeon had failed to remove a cherry stone, the village barber administered an emetic, and at the moment when vomiting was about to commence, clapped a handkerchief over the childs mouth, so tightly as to force the obstruction at once from its previously fixed location.

Another case is related where, under similar circumstances, an old negro woman advised: "Put yer finger 'long side the nose, t'other side from the thing, and with your own mouf over the child's monf, blow hard, and its bound to come out." The doctor followed the directions, with a favorable result.

When Beginning to Use Glasses, use them as short a time as possible, only in deficient light, or on minute objects, and then change the strain to distant or larger objects. By a judicious attention to these two points, the age of the sight will be retarded many years. And as reading is one of the luxuries of the age, and one of its most delightful pastimes and amusements, we cannot be too careful of the eyesight, and should study how we may best husband its powers.

Removing and Resetting Teeth.—An English dentist recently had one of his teeth extracted, cleansed, caries removed from the crown and replaced in the socket, where it has taken fresh root. A dentist in Portsmouth, N. H., scientifically performed a similar operation some four or five years ago. We have a friend who submitted to a similar operation more than 30 years ago, and the tooth to-day is sound.

Enormous Brain in a Boy.—A boy, thirteen years of age, recently died in the Middlesex hospital, Loudon, from injuries caused by a fall from an omnibus. His brain after death was found to weigh fifty-eight ounces, about eight ounces above the average male adult brain. The lad had been particularly healthy, without any evidence of rickets, and was very intelligent.

Who Require Most Sleep.—Those who think most require the most sleep. Time gained from necessary sleep is not saved, but lost. Mind and body will both suffer. Most people, however, do not think enough to make early rising particularly dangerous. It is the hard-working professional man, the close student, or the man of business with many cares upon his mind, who suffers most from loss of sleep.

Zinc Fumes.—The action of zinc fumes upon the bones of the human system is very much like that of phosphorus. *Dental Cosmos* gives an account of the destruction of a large portion of a man's jaw bone by the fumes of zinc. The man was a brass founder, and was attacked by the zinc poison in pouring off the alloy zinc and copper.

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SAN FRANCISCO:

Saturday, Feb. 22, 1873.

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MISCELLANEOUS.—Living, a Science; Frost Crystals; A Novelty in Telegraphing; Cleaning and Refacing Stone; A Triumph of Modern Engineering; A Beautiful Fungus, 115. Patents and Inventions; Vineyard Culture; Letter from Washington; Behind the Curtain; Oranges at Home, 124. Who took the Profits on our Wheat Crop, 126.

ABUNDANT RAINS.—Over all the State, indeed throughout the entire of the Pacific Coast from Lower California to Oregon, from the sea coast to the interior Sierras, either rain or snow or both have fallen in full abundance. Our great reservoirs, the summits of the higher mountains are holding on to their treasures of snows by the aid of unusually cold weather just now, that they may send down in more copious abundance the needed waters to the summer parched plains. Everything betokens a favorable and highly prosperous year for the agriculturist who grows his grains, or who feeds his flocks upon the natural herbage of the plains and mountains, and for the fruit grower who relies upon sufficient moisture for the perfection of his fruits unaided by artificial irrigation. All these seem now in the right road to prosperity, and all through the blessing of abundant rains.

TEA CULTURE IN THE UNITED STATES.—Washington, February 17th. A quantity of tea seed and specimens of the soil on which the plant is successfully cultivated in China, were to-day sent to the Agricultural Department, by Commissioner Drummond. This has been done in accordance with the request of parties experimenting in California, for the purpose of ascertaining what ingredients of American soil are essential to success in the culture of the tea plant.

REVOLVER TRAP.—We are inquired of in regard to the merits of this trap as advertised in 1st of Feb. No. of the RURAL. Personally we know nothing about it.

Something About Seeds.

Continued—Grass Seeds.

To a country which, like California, must for a long time add to her wealth by the product of her flocks and herds, the cultivation of rich and nutritious grasses, and of those capable of bearing our summer heats must be ever of importance, more especially when it is remembered that particular kinds of grasses exercise an effect on the fertility of the soil.

RED AND WHITE CLOVER SEEDS are much sought for in this market. They are imported from the East, and from Germany, and bring, the White 75 cents and the Red 25 cents per pound. The White Clover is used principally for lawns.

A great deal of Alfalfa seed is grown here in ordinary years. Last year, however, it failed, and there is little or none now of California growth in the market. For Alfalfa seed 22 to 30 cents per pound is now asked. The price has been from 16 to 35 cents. Chili seed is now 45 cents per pound. Alfalfa grows chiefly on the Sacramento river, twenty-five miles above and below Sacramento.

KENTUCKY BLUE GRASS, Mixed Lawn and English Rye Grasses are used for lawns and the seeds are sold at from 50 cents to 75 cents per pound. They would all be good for pasture in countries where there was plenty of rain but here they can hardly be used save for lawns.

RED TOP AND TIMOTHY are good for pasture lands and for planting in moist lands. We imported some from Oregon this year. Red Top seed now brings 50 to 75 cents per pound and Timothy 25 cents.

MESQUITE is a grass introduced from Texas. It does well on the coast where it is exposed to the fogs. It is there always green and some prefer it to Alfalfa. The seed is being experimented with this year in the interior valleys. The price last year was $1 per pound, now it is only 60 cents, and in large lots only from 45 to 50 cents per pound.

Tobacco Seeds.

Next to the culture of the cotton plant, that of the Tobacco plant is claimed by some to be the most important to the future of this coast. Possessing a climate far superior to many of the Eastern States that raise the finest Tobacco in America, we have been unable to do anything for several years, owing to the fact that our farmers were unacquainted with the proper method of curing it. That, however is now no longer a difficulty since Mr. Culp, of Gilroy, has succeeded in curing his crop, and many farmers are purchasing seeds this year. These can be had in this city, Havana, Connecticut and Virginia seed all at 50 cents per pound.

Tree Seeds.

Trees valuable for their shelter, for their lumber, and for use as line fences, should receive particular attention at the hands of the farmer. Many of these have to be imported and many in a wild state, grow only in particular localities, and the services of the seedsmen are here worthily called into requisition.

Of California varieties the seeds of the Lawson Cypress, the Monterey Cypress, and the Pine are most in demand. The former are easily obtained as those trees bear abundantly and they only cost $1.25 per pound, but those of the Pine giving more trouble to the collector bring from $6 to $8 per pound.

The Australian Blue Gum is now becoming a favorite tree; it grows all over the State. The seeds, imported from Australia in boxes, resemble Onion seed, and are sold at $2.50 per ounce. It makes its appearance above ground a week or ten days after being sown, under favorable circumstances. There is a great demand for the seed.

The Acacia, also an Australian tree, grows well across the Bay, but does not take deep roots to stand out a gale. This tree which has a great many different species is favored for its beautiful and odoriferous blossoms. The seed is sold at 50 to 62½ cents per ounce.

Ramie Seeds

In the State were sold by Messrs. Sylvester & Co., Washington street, and brought $6 per ounce. There were only two papers of them each containing an ounce. It is now propagated by cuttings.

Miscellaneous.

White Poppy seeds are sold in this city at 25 cents per pound. The Sorghum which is now only cultivated here for stock, is one of the most important of the sugar-producing plants. The seed is black, like that of Broom Corn, and retails here at 50 cents per pound.

There are many new kinds of seeds being continually introduced. Amongst them we note that of the Sculptured Water Melon, which looks as if it had been carved, and is sold in small packages at 25 cents each. Then there are the New Strawberry Water Melon, the Russian American Water Melon and the Early White Naples Onion amongst new seeds for 1873.

The vast majority of all the seeds sold in this city are

Imported,

And for two reasons, first, because California farmers generally do not give sufficient attention to the growth of seed plants or the gathering of the seeds. They sell all the best plants, etc., and when, as in the case of Peas, they have sold in the market for table purposes all the best, they reserve the worst for seed. The result is that the vegetables, etc., deteriorate in quality from year to year, and have continually to be grown from new imported seed. And when the seed is gathered there is no pains taken in the cleaning of it; bad seed is mixed up with good, and it either brings an inferior price or people don't want it. To this, however, there are exceptions, and one really notable, being that of Mr. Sevin Vincent of San Leandro, who has been engaged in

Seed Growing

For twenty years, since 1852. This gentleman first started in the business at Brooklyn, where he has still five acres of land devoted to seed growing, but three years ago he took eighty acres at San Leandro, which he has now entirely under seed beds. Here he grows vegetable seeds in great variety. He has now on hand a stock of seeds which at prices less than New York, are worth $20,000. The ground is plowed a foot deep, the beds are prepared in January and February, and the seeds are ripe in September. The following are the

Quantities of Seeds to the Acre

That this gentleman has been able to raise. Cabbage seeds, 1,500 lbs.; Sugar Beet do, 800 to 900 lbs.; Carrot do, 1,000 lbs.; Celery do, 300 to 400 lbs.; White Mustard do, 2,000 lbs.; Onion do, 200 to 300 lbs.; Pepper do, 200 lbs., and Radish do, 1,000 lbs. Onions bear more seed per acre in other parts of the State, in some places 800 lbs. Mr. Vincent

Exports Seeds

To Utah, Arizona, Oregon and even to New Orleans. California Conifer tree seeds are exported to Australia, France, Germany and England. Messrs. Sylvester & Co. export a great deal and cannot fill the orders, as they have to go out and collect the seeds themselves, and this is of course necessarily a slow process.

The Seed Trade

Of this city is carried on by half a dozen different houses and amounts to about $50,000 per annum. We close this article for the present, but as the subject is an interesting one we shall probably recur to it again.

Weigela Rosea.

This beautiful, hardy shrub is a native of China. Mr. Fortune, the celebrated collector, met with it growing in the garden of a mandarin about the year 1837. This lovely plant thrives in the most desirable manner in any ordinary garden soil, which has the proper degree of porosity necessary to admit of the spread of roots. It is clothed with neat, bright green foliage, of medium size, and extends its branches on all sides, so as to form a round-headed specimen, which, for pleasing neatness, may vie with any other shrub we have. In winter the leaves fall off, the plant being deciduous; but they re-appear very early in spring, and are speedily followed by the very handsome rich, part rose and part white-colored flowers, a good deal resembling the prettiest apple blossoms, large and abundantly produced and of surpassing loveliness.

Its cultivation is by no means difficult in any respect. It is very much planted in Eastern grounds and gardens generally. It strikes readily from cuttings. As to the position it should occupy, when finally settled, we can hardly conceive one in which it may not be ornamental—as single specimens on grass, in small groups of choice subjects, or the front of shrubbery borders, the Weigela will be equally beautiful The handsome and numerous large pink bells make the plant desirable in all situations even amongst such fine and almost constant bearing shrubs and flowers for which California is so deservedly famous.

The genus Weigela is included in the beautiful order, *Caprifoliacea*, a group of plants found only in the temperate regions. Its nearest ally is the genus *Diervilla*, composed for the most part of Japan plants, distinguished by their handsome rose-colored or white flowers. The honeysuckle is the type of the order, but is the only one of the number possessing an agreeable odor. Weigeld in the Linnæan arrangement is included in class *Pentandria*, order *Monogynia*.

Producers, Middlemen and Consumers.

Steadily but surely are two very important classes of our people being brought to consider their relative condition, each towards the other; we have direct reference to the producers of agricultural products, and the consumers of those products. It is well known to producers in this State, and particularly with those who can trade directly and daily with the cities, that though they may put upon the markets in the hands of middlemen the products of their toil, at rates barely above the cost of production, yet they see the same resold before their eyes, to the consumers at from twenty-five to fifty per cent. above the highest price they are able to obtain.

The consumer as well as producer looks aghast at the enormous charge made for the mere receipt from one and delivery of the same to the other. The farmer can but poorly afford to sell at the pittance offered, whilst the latter—the bulk of whom are the middle and poorer classes—can but ill afford to pay the enormous advance. And yet this thing has been, and is, going on from year to year, and with what result? Who makes the lion's share of real profit upon the farmers' produce?

A stranger feature of this condition of things is, that the municipal governments of our cities should favor this extraordinary taxation of their poorer classes, merely to enable a few middlemen to reap large profits from the earnings and profits of others, by imposing unjust tax licenses upon the producer who shall have temerity to sell directly to the consumer without the intergoing or positive interfereuce of the middlemen.

So crying an evil, and increasing, has this become, that the people of San José last summer made a strong effort by petition and otherwise to throw off the incubus that was weighing so heavily upon the prosperity of the two classes intimated, producer and consumer, and now we see that the Farming, Horticultural and Industrial Club of Oakland, as a club, are moving in the same direction by the appointment of a committee to memorialize the city government in behalf of the club and the farmers and gardeners of Alameda county, to the effect that some place in the city of Oakland be set apart or designated as a "market place," where the farmers, gardeners and producers of Alameda county and adjoining counties, on certain days of each week, can exhibit and sell from their wagons direct to the consumer without their products being subject to tax for license or other charges.

One of the potent reasons and arguments for the same in said memorial being this, "That the setting apart of a market place will not only serve to increase the business of the city of Oakland, by calling the farmers and producers of the county and adjoining counties together on marker days, but will stimulate the production by competitions, to improve the quality as well as to increase the quantity of production.

And further that the city which can offer the cheapest living, will always attract population. That it is for the best interests of all to bring the producer and consumer together, and thereby cheapen the necessaries of life."

And if it has come to this, that our producers must ask the liberty to sell their farm products within the limits of a city, when, where and to whom they please; they should go further and demand of municipal governments by what authority they exercise the right to prohibit such sales, and forcing everything into the hands of city factors and salesmen, that they may tax the masses of consumers under the guise of licenses to middlemen.

We hope the city of Oakland will set an example of free trade and open hearted welcome to the farmers and gardeners of the surrounding country, which cannot fail to tell beneficially upon their mutual prosperity.

JUTE SEED.—Parties have written us for Jute seed sufficient for sowing from one to fifty acres. We regret that we have not the seed to meet the full demand. What we had received when our notice was given, has all been distributed.

HORTICULTURE.

Pruning.

We have sometimes noticed people with jack knife, hand-saw and hatchet in hand, attacking their fruit trees as though they were enemies whom it was their purpose to wound, mutilate and disable by all means in their power. After the battle has been fought we have seen the ground covered with branches, and in some cases with heads and trunks lying scattered in all directions around the scathed and bleeding trees, that remain like wounded and maimed soldiers, after a hard fought contest. And the trophies of the victory thus obtained are carried off by the whole cart load in the shape of sound, healthy sprouts and branches, covered with leaf and fruit-buds, and consigned to the wood-pile. We witnessed just such a scene two years ago near Davisville, in an orchard about 20 years old. To be sure it had been terribly neglected for a long time and the trees were thick with a dense mass of wood. But the pruning should not have been done so ruthlessly all at once. What thinning of the branches which was done then should have been gradually performed in about three successive years. California's climate and soil create a vast deal of wood, and trees can stand more mutilation, probably, than in almost any other country. It would take years, however, before this orchard we have spoken of would recover itself so as to fruit even moderately. We have to keep trees pretty well pruned notto grow much too rampant. The pruning of trees should commence when they are young, then they will not require much pruning afterward. Trees that are trimmed the least, after having been started right at first, are generally found to be the most vigorous, and to develop the best formed and most beautiful heads. Now and then, a limb that is putting forth in an inconvenient direction, or in a direction which will injure the symmetry of the head, should be taken away. A limb that is shooting out more vigorously than the rest, may be shortened, and when two limbs are chafing each other, one may be removed. The idea of cutting out the whole central portion of an apple tree, to let in the sun, is wholly erroneous. The tree is thus deprived of a large portion of its lungs, as well as of many of its best bearing branches. In our climate, the fruit so far from requiring the direct rays of the scorching sun in midsummer, requires to be protected from its rays by the foliage which Nature has provided.

The best time for general pruning is a mooted question among intelligent men. But our own belief is that the proper time, in this climate at least, is in April and May, when the leaves have attained their full size, and are in full health and vigor, and are elaborating an abundance of sap. In this state, a fresh wound will commence healing at once. New bark is rapidly formed to cover the wonnd. It is the descending sap from which the new bark, as well as all the other tissues of the tree, is formed. When this sap, properly elaborated in the leaves, is not furnished in the formation vessels, no new growth of any kind is effected. Hence it is only when the leaves are in a condition to perform their proper office, that the new growth necessary to effect the healing of a wound can be accomplished. We think that if the trees, generally, in California, were not planted so close together, there would be much less necessity for so much and such close pruning as we now see.

Cultivation of Heaths, or Ericas.

The genus Erica boasts in Europe of hundreds of varieties and species, all more or less interesting. Here our florists have at present cultivated only a few of them, but they are increasing their lists, and these shrubs deserve to grow, from their beauty and elegance into the liberal favor of the public. We observe some of this handsome family of evergreen plants. chiefly the white and piuk flowered, doing very well in our gardens in the open air, and thickly set with their small but strikingly effective blooms. Their habit of growth is very dense, which adds much to the glowing display of their comparatively minute bell-shaped flowers. They are well adapted for bouquets. In our favored clime they do not require to be removed to greenhouses for winter quarters.

Heaths may be placed in two classes, the soft-wooded or free-growing kinds, and the hard-wooded or comparatively slow-growing kinds. The former require some pruning, the latter none at all—neither leaves or braches. The best soil for them is our richest garden mould, incorporated with a great portion of fine sand. Water should be freely used, but with discriminatiug care, as excesssive watering is injurious to them, but the soil should be well soaked and not too often. The essential point in their management are, first a proper selection of the most showy kinds, which are distinct white, red, pink, purple or rose color, with dark green foliage; secondly, a careful preparation of ground in which they are to be grown; and thirdly, a location where there is an abundant supply of pure fresh air. We strongly recommend this flowering shrub for general cultivatiou, supported as we are by the favorable opinions of some of our first-rate florists.

Vases and Vase Plants.

Many of our citizens in their largest country places, where they combine the ornamental with the useful, where they partly farm and partly garden, where they make some of their productions help pay for their pleasing embellishments of summer houses, seats, fountains, ponds, waterfalls, etc., will, of course, (if they are "wide awake" and seek information) find the PACIFIC RURAL PRESS to assist them in carrying out many of their objects. In so doing, some hints as to these matters may not be uninstructive or uninteresting. We will, therefore, in this paper, say something about vases and vase plants, the positions they should occupy in gardens and grounds, and the plants most suitable for placing in them. These vases are generally either of worked iron or stone, or various imitations of them, and are especially appropriate for gardens laid out in the geometric style, but they have a good effect in many other modes of laying out gardens. In all cases they shonld be large enough to hold sufficient soil to keep the plant in health. We prefer vases rather large than the reverse, for we must enter our protest against the miserable dished up plants which are often seen struggling for existence for want of water and earth to grow in. These are all the more necessary in our long dry summers. In natural scenery, either real or imitated, vases should be placed in immediate connection with gravel or other walks, or roads, which will form a kind of base for them, or at no great distance therefrom; or they may be placed on pedestals on low walls, or stone terraces. It does not require expensive plants to create a beautiful combination of form or color, and make them harmonize with the situation they are to fill. A vase filled with common California ferns produces a most charming effect; and those who grow exotic ferns will readily perceive what elegant groups they would make, if transferred to a vase. But these fern vases should be kept mostly in the shade. Some African or Japanese lilies, supplied well with water form fine objects. Their sword-like leaves bend gracefully over the rim of the vase, and crowned with their variously colored bright flowers, render them as couspicuonas they are graceful. Phormium tenax, New Zealand flax, is another suitable plant for its foliage, as are some of the Yuccas, but these latter must be showing bloom, before they are transferred, when they are really fine objects. There are many other sword-leaved plants, including Gladioluses and Irises, well adapted for the purpose. Nor should we forget the Acanthus.

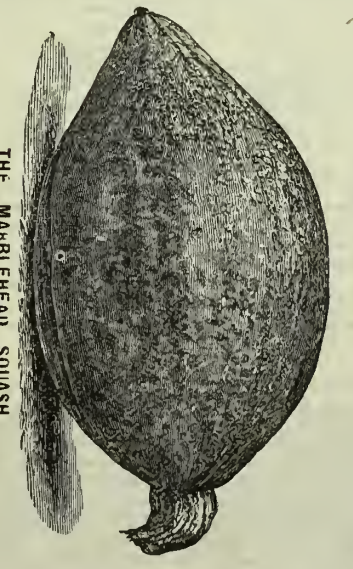
We will conclude by naming a few creeping plants adapted for planting round the principal: these will creep over the rim, and may then be left either to grow in their own way, or be trained so as to form festoons round the base. Lophospermums, two or three kinds, Maurandyas, blue, red and white. Tropaolum, Pentaphyllum and Speciosum, Calystegia Pubescens, Lysimachia Nummularia, white (Loosestrife), Campanula fragilis; Lobelias Erinus and Unidenta, and some others, although they do not grow so tall as the former, are useful for the smaller vases. But all the above effects cannot be accomplished well without water being convenient to supply them copiously, daily, with it in dry weather.

The "Marblehead" Squash.

The cut which we here present, is a new variety just being introduced by Mr. James J. H. Gregory, of Marblehead, Mass. He says, in speaking of it:

"This new squash, as a rule, is characterized by a shell of a more flinty hardness than the Hubbard. It is usually thicker and flatter at the top. It has a greater specific gravity. The flesh is of rather a lighter color than the Hubbard, while its combination of sweetness, dryness and delicious flavor is something really remarkable. In yield it equals the Hubbard, while its keeping properties are declared to surpass that famous variety. In the important matter of purity, it excels the Hubbard and every squash that I have ever raised.

Its outer color is a light blue; not to be confounded with the blue-colored squashes that come at times from the Hubbard seed—mongrels made by a cross of the Hubbard and a thin-skinned squash which we used to call Middleton Blue, which we were raising before we knew of the Hubbard, and raised for a few years after we had the Hubbard, side by side with it If the seed of these mongrels be planted, their hybrid character will be seen by a terrible sporting, so dreaded by every farmer; while, on the contrary, the crop from the seed of the "Marblehead" will be found to excel in purity any standard variety of squash." For further facts in regard to this new garden product, we refer to our advertising pages.



THE MARBLEHEAD SQUASH.

SPINACH was first cultivated in Arabia.
THE sunflower was brought from Peru.



FIRST VIEW OF THE SIERRAS BY CALIFORNIA PIONEERS.

California Pioneers.

In speaking of the early days of California, we are too apt to place our dates to correspond with that of the immigration incident to the discovery of gold, and thus the '49-ers, as they were called, bore off, to a great extent, the palm and credit really due to more adventurous spirits than themselves.

We should go back nearly a decade, or to '41, and crown with the laurel of adventure the really early pioneer—for it was in that year that the first company, headed by Robert H. Thomes, not as hunters or trapers, but as a company of adventurers, determined to see what they could see, and appropriate, if they saw fit and right, first traversed "the plains," crossing by the same route, via Salt Lake, Humboldt river, and the Sierras, that afterwards became the great highway of the overland immigration of 1849 and onward, and that only ceased when the iron rail had spanned the continent.

It is to the few who remain of that band of brave spirits composing the first overland company that we dedicate the engraving presented herewith; for now

All broken is that little band,
Patient of toil and strong of hand,
Who left Atlantic homes to rear
An Empire's proud foundation here.

We present in our illustration the company just as they are winding over the first rugged hight that brings to their view the distant Sierras. With what exclamations of joy and triumph they beheld the rounded peaks, lifting their snowy turbans to the skies can only be appreciated by those who in latter years made the same tedious journey, though to a great exent reft of the sufferings and dangers incident to this first adventurer, when

"The Indian from his lodge of bark,
The grey bear from his den,
Beyond their camp-fires' wall of dark
Glared on the mountain men."

We could give the names of men who composed this adventurous band, but as many of them now "sleep the sleep that knows no waking," it would seem like calling them from the tomb; and though our first interest is ever with the living, we are glad to do honor to the memory of the men of this pioneer band of 1841, who, when resting for the first time under the shadows of the mountains, that after 170 days of weary toil they had at length reached,—

"All night above their rocky bed,
They saw the stars march slow
The wild Sierra over head;
The desert's dearth below.

Still upward turned with anxious strain,
Their leader's sleepless eye,
Where splinters of the mountain chain,
Stood back against the sky.

They set their faces to the blast,
They trod the eternal snow,
And faint, worn, bleeding, hailed at last
The promised land below.

Behind, they saw the snow-cloud tossed
By many an icy horn;
Before, warm valleys, wood embossed,
And green with vines and corn."

PROF. SHEAFER lately delivered an address before the Scientific Department of Lafayette College upon coal, reviewing its importance as a fuel, and the effect it will have upon the strength and power of nations. He said: "Practical as well as analytical tests fail to supply an acceptable substitute for coal. England must soon yield to America in the great competitions of the nations. The strength of both is in their coal mines, and in England these have already reached nearly or quite their maximus while our anthracite is but partially developed, and our bituminous coals are scarcely touched.

"But though Pennsylvania's store of anthracite will last for many years, and long after it is drawn upon to supply England, it is useless to deny that there is a limit to the supply, and that after a time it will be exhausted. Then what shall we do?

"We shall proceed to open the grand reservoir, the bituminous coal fields, compared to which our anthracite beds are but as a millpond to the Gulf of Mexico. With a bituminous area of 12,000 square miles in Pennsylvania, and 197,000 in the United States, we can supply the world with fuel for ages to come."



The Songs My Mother Used to Sing.

BY MARY ANNIE E. REESE.

When Memory wakes her notes of cheer,
And through my heart their echoes ring,
How softly steal oe'r Fancy's ear,
The songs my mother used to sing!
It glads me to recall the day,
When folded gently on her breast,
She sang the low, sweet lullaby,
That hushed my infant woes to rest.

In childhood hours, when sickness came,
And paled my little brow and cheek,
She was beside me still, the same
Kind watcher, o'er the wan and weak.
Dear Mother, in that helpless hour,
What ceaseless tenderness was thine!
To guard so carefully the flower
That health and bloom might yet be mine.

And life, and bloom, and hope were given,
Once more my Mother sang and smiled—
Our home was like a cloudless heaven—
I grew a happy, healthy child!
O childhood's gay and laughing hours,
Why do ye roll so swiftly by,
When fairer bloom the summer flowers,
And stars shine brighter in the sky?

Old Time may spread his tireless wings,
And onward sweep with rapid flight,
Bearing earth's fairest, loveliest things
Beyond the ken of mortal sight;
Yet memory's harp shall still be near—
I'll bid her strike each golden string,
And once again shall charm my ear
The songs my Mother used to sing.

The flowers that round my pathway bloom,
The glorious stars that nightly shine,
May fade away in endless gloom—
But memory's gift shall still be mine;
And when the last dark hour shall come,
Her sweetest harmonies she'll bring,
While angels wait to bear me home,
With songs my Mother used to sing.

My Middle-Aged Valentine.

Methought, O, gracious Friend, that Destiny—
With cheerful visage, and no longer blind—
Did freely condescend to grant all prayers
Of discontented mortals; and the wish
Held silent in dumb hearts, was taught to speak
And find, in utterance, fresh hope and strength.
But could this mighty god undo the Past,
And pluck vain wishes from the fallen years?
My heart kept still; and doubting, held its prayer
For deeper burial with most solemn care.
Would'st know my Friend this wasted wish of mine?
—"To have my youth again—and be—thy Valentine!"

February 14th, 1873. M. J. L.

Dream Gifts.

Once, far away in the dim world of dreams,
I felt a kiss that pierced my soul with flame;
I looked in eyes that answered unto mine
And slaked my thirst of love in love divine.
Yes, love divine; for when the waking brain
Brought back my soul, it had this proof of gain,—
A warmer glow of sympathy for those who need—
A sweet and proud content—a broader creed.

M. J. L.

Bugbears.

EDITORS RURAL:—Many who have never seen a "real live bear," have had more or less experience with bugbears, or in other words, borrowed troubles. We remember to have read in our youthful days, a story entitled, "The Three Bears," which were classed, the great big bears" the middling sized bear, and the tiny little bit of a bear. We think "bugbears" might be divided into the same classes.

Many a bughear assumed a monstrous size, seen through a disordered vision, occasioned by dyspepsia or biliousness. Let the wheels and springs of the digestive organs be in good working order, and the hugbear or trouble disappears.

Things viewed from a distance do not generally appear their real size; so many a bugbear looked forward to with apprehensions when we march boldly up to it, turns into a very "tiny" bear if it does not vanish entirely.

We have but little patience with those people, who have a habit of constantly borrowing trouble, who never see a 'bright side.' We know that "every cloud has a silver lining," not now as in our earlier days, by being told so, but by experience. We can always discern the silvery edges, and, if we but have patience the whole lining will be revealed. We are satisfied that in every position however unpleasant, we may cull a few grains of comfort and happiness, if we choose to look for them in little things. We know also that the tiny little bears cause much discomfort.

Our attention has been called to this subject of bugbears more particularly of late, by the experience of a friend of ours who seems to have had remarkable success in slaying them. We often hear him say, "that's another bugbear out of the way," and we think he has won the victory by going straight ahead and boldly facing them, and have come to the conclusion that a difficulty ceases to be such when bravely met, and that it is better to wait patiently the fruit of our own best judgment, with firm trust in an over ruling Providence, than to heed too much the opinion of that class whom we may ever hear prophesying no "rain or too much:" there's not enough wind or too much or from the wrong direction;" "if it does not rain before a certain date we cannot sow," or "if the latter rains are witheld until after a certain time we shall not reap." Though they may be some reality about these bears, we are inclined to think they are not so formidable as they are made to appear, and if we go forward, having faith in God and ourselves, they will flee from our path. S. M.W.

The Beautiful Birds.

As we walk through the streets or stroll along the highways and around the farms, we are pleasantly reminded of the increase of civilized associations in the larger number and variety of birds to be seen. For years after this country was settled by the Americans few birds were found.

We have traveled whole days without hearing or seeing one. But we saw the reason then for their absence and now for their increase. Then eagles, hawks, coyotes, foxes, badgers, raccoons and skunks, that abounded in the country, with the miserable race of Indians that lived here, made common prey of the birds. They attacked them in the air and nestling, until few remained.

When the white man came he dug for gold or plowed for grain, always with his gun near by, and as is natural to him, he never missed a chance of killing one of these bird-destroyers when he could, always excepting the Indians, and they soon followed the game over the mountains. So that within a few years past nearly all the bird pests are killed out and gone, and the blue-eyed white man from his bounteous fields of grain has fed and protected them, till the landscape is dotted over with all the colors of the rainbow and the air is musical with the sounds of the little warblers.

Flocks of larks rise from the dewy grass of the roadside, or sing from the fence as we pass along. The bluejay flies stealthily from one live oak to another. The turtle dove coos its love lays from the dead limbs. The rare and beautiful Southern blue bird, in numbers unseen before, sports in the warm sunshine and ever and anon poising themselves in the air, show us how long and still they can stand on nothing.

The lithe linnets are here and will soon come to the shade trees and rose vines with the young of last year, to seek a nesting place, while the blackbirds sing all day long from the housetops or tules. Heaven bless the little birds, with their associations of traps in the fence corners and brier patches; with the cherry trees and shot guns; with the home of love and innocence that even now wells up tears from our stony hearts.—*Ledger.*

BE BRIEF.—Long speeches, long letters, long communications, are out of place in these stirring times. We have a whole world's news to look after, and put in order for our readers over night. Remember that, kind correspondents and contributors. Avoid parenthesis. Drop the semi-colons altogether. Make the spaces between the periods as brief as possible. Shake out the adjectives without reserve. Sacrifice the pet metaphors. Be not led away by the love of antitiresis, or alliteration. Be clear, and crisp, and pertinent, alike in your invectives, eulogies, and recommendations. Think of the Lord's Prayer, and then of the awful substitute served up by sensation mongers in too many pulpits. What fights of tawdry rhetoric, and volleys of expletives; what endless repetitions of tedious details, weary and disgust the hearer. It is frightful to think of the time wasted by these self-parading petitioners and long-winded inditers of many-headed sermons. Life is too short, too full of cares and duties, to be thrown away thus. The best advice, the brightest wit, the deepest wisdom, come ever in small packages.—*Boston Globe.*

THE BEST STIMULANT.—There are times when the pulse lies low in the bosom, and beats low in the veins; when the spirit sleeps the sleep which, apparently, knows no waking, in its house of clay, and the window-shutters are closed, and the door is hung with the invisible crape of melancholy; when we wish the golden sunshine pitchy darkness, and are very willing to fancy clouds where no clouds be. What shall make the heart beat music again, and the pulses dance to it through all the myriad-thronged halls in our house of life? What shall make the sun kiss the eastern hills again for us, with all his old awakening gladness, and the night overflow with "moonlight, music, love, and flowers?"

Love itself is the stimulant, the most intoxicating of all, and performs all these miracles; but it is a miracle itself, and is not at the drug-store, whatever they say. The counterfeit is in the market, but the winged god is not a money-changer, we assure you.

WHEN a man thinks that nobody cares for him, and that he is alone in a cold and selfish world, he would do well to ask himself what he has done to make anybody care for and love him, and to warm the world with faith and generosity. Generally those who complain the most have done the least.

CHILDREN AS CRITICS.— Mothers, you have little critics around you. They pass just judgment on your actions, and their respect for you is increased or lessened by this reading of your character; but the influence controls them all the same as if they did not read the signs so clearly, and thus you make them very much such as you are yourself.

The children know very well for whom you bring out your best things, to whom you speak in your blandest tones, and on whom you bestow your sweetest smiles. See to it that your best efforts are made for those you are in the habit of speaking well of, no matter how poor and obscure they may be. Be very cautious how you receive that individual of whom your children have heard you speak disrespectful words.

The children know when they are justly punished, and in what spirit. The evil caused by a hasty blow and unjust decree may never be eradicated.

Parents should be especially careful not to do anything themselves that they teach their children to be wrong. I remember, when a child, surprising a beloved aunt one Sunday afternoon making a cap. She called me to her and said: "Don't tell your uncle, and I will give you a penny." Her influence over me for good was lost forever.—*Hearth and Home.*

ELEGANCE DOES NOT MAKE A HOME.—I never saw a garment too fine for a man or maid; there was never a chair too good for a cobbler, or cooper, or king to sit in; never a house too fine to shelter the human head. These elements about us, the gorgeous sky, the imperial sun, are not too good for the human race. Elegance fits man. But do we not value these tools of housekeeping more than they are worth, and sometimes mortgage a home for the sake of the mahogany we would bring into it? I had rather eat my dinner off the head of a barrel, or dress after the fashion of John the Baptist in the wilderness, or sit on a block all my life, than consume all myself before I got to a home, and take so much pains with the outside that the inside was as hollow as an empty nut. Beauty is a great thing, but beauty of garments, house and furniture, is a very tawdry ornament compared with domestic love. All the elegance in the world will not make a home, and I would give more for a spoonful of real hearty love than for whole ship loads of furniture, and all the gorgeousness that all the upholsterers of the world could get gathered together. —*Ex.*

A MAN WITH GREEN HAIR.—A gentleman recently went into a Detroit barber shop to get shaved. During the course of this operation the barber, like the rest of his kind, ever on the alert for a stray quarter, made the timely discovery that his locks were turning gray, and at once suggested that an invigorator and a little dying would rejuvenate them beyond recognition. The gentleman consented to undergo this process. The dye was vigorously applied, and in a short time the half hoary locks were transformed into a luxuriant "chestnut" brown.

The barber was highly elated at the success of his efforts, and promptly applied a liquid generally used in the dying process for the joint purpose of taking off the superfluous dye and making the color fast. But unfortunately he rubbed the head with the contents of an acid bottle which had accidentally been placed on the stand, and turned the "chestnut cluster" into an ugly mottled green. The gentleman was ferociously indignant at the barbers mistake, and requested him to shave his entire cranium, but upon being told that he would have to wear a wig for some time he concluded not to have it done. Several weeks will elapse before his hair will again regain its natural color.

"TIP TILTED."—The poet Laureate of England has performed a feat by which he will secure the admiration and gratitude of a considerable section of the fair sex. In describing a nose he has actually brought the upturned snub within the range of poetical expression. Hitherto this nasal organ has not been more delicately described than as "celestially inclined," but now Tennyson, in the last published of his "Idyls of the King," denotes it thus:

"Lightly was her slender nose,
Tip tilted like the petal of a flower."

Tip-tilted" will henceforth take a prominent place in our language, and will come soon to the aid of those who wish to describe a certain nasal formation without offence to the wearer.

A MAN who will disinherit his wife because she marries again bears her the same kind of love that the Turk bears toward the women of his harem, and not the love which a free, true man bears toward a free, true woman. If he finds happiness in a maried life, what a cruel brute that he should deliberately provide that when he dies, and his widow, recalling the happy days of her married life, should consent to marry again, she shall be deprived of the fortune which he leaves her! Such men were married in body, but never in soul.—*T. Day.*

YOUNG FOLKS' COLUMN.

To the Boys.

[Written for the PRESS.]

I am an old man, and my business is to obtain subscriptions for the RURAL PRESS. I have sometimes to do a good deal of talking to prove that agricultural papers are useful to those who read them. There are some farmers who think they know all about it, and that agricultural papers are of no account; but such farmers don't live very well; they don't know the difference between breakfast and dinner. It is generally fried bacon and saleratus biscuits, from one year's end to the other with them. Yes, said an old man to me the other day, they are useful, I know, and I will tell you how I found it out. When I was a boy, I lived with one of my uncles away down East, on a farm; among his cows was a fine looking one, which would kick when anyone tried to milk her; she kicked over the pail, time and again, and she kicked my uncle over; do what he would, he could not make a gentle cow of her; she would kick. One day I read in an old number of the *New England Farmer* (which I believe was the first agricultural newspaper printed in America) an article, from which I learned that if I put a rope about a cow's horns, and made the rope fast over a beam, or something to keep her head up as high as possible, she could not kick, on the principle that she could not get both ends up at once; with my uncle's permission I tried it; it was a perfect success; when she found she could not kick, she stopped trying to do it, and in a little while I made her one of the gentlest cows in the yard; my uncle was so much pleased that he made me a present of her calf, a regular beauty of a red heifer, which I managed to keep until she had calves and grandchildren, or grandcalves, I suppose I should say; any way, when I got to be twenty-one years old, I had as handy a yoke of steers as there was in the neighborhood, and a couple of likely young cows; a fortune almost big enough to get married on in those days, so at least one of the neighbor girls said she thought, and I got it out of that old copy of the *New England Farmer.* Now boys, there will be more than one yoke of steers in the RURAL PRESS before New Years comes again, or I am mistaken. Keep a lookout for them. SENEX.

The Boy that was Not Remarkable.

Most boys who "get into the newspapers" are very remarkable boys.

Joe had nothing about his looks, or actions, or color, that attracted the particular attention of anybody,

He grew to boyhood, but he was only a common boy. He learned his A B C with difficulty, and was slow in learning to read. His teacher thought he never would "get through the multiplication table." But he never forgot it.

When the boys went a-fishing, Joe went, too; but he was slow in getting his his hook and line ready. The other boys were on, and in, and around the lake, before his hook was fairly settled in the water. "Too slow to move," the boys would say. "He'll sit there expecting the fish to come to him." It was even so; he remained stationary and fixed; but, when night came, somehow his basket was always full, while many of the bright-talking geniuses went home with the sad intelligence that the "fish would'nt bite."

When he grew to be a man, the bustling drive-aheads laughed at his plodding; but, by some means, he seldom made a mistake, and, though he did not seem to accomplish as much in a week as many others did in a day, yet, at the end of the year, there was always something tangible in his results, while the work of those who seemed to utterly outstrip him at first ended in demolished air-castles.

He has passed the meridian of life. Men eminent in the profession respect his judgment. Business men coming upon the stage of action long to learn the secret of his success. The bank leans upon him to carry it through the trying crisis; merchants and manufacturers lean upon him to save them from the bankruptcy. Steady, constant, and hard study made him a scholar; persevering industry, accompanied with economy, raised him to opulence; close observation and deliberate reflection cultivated a sound judgment, and honesty and integrity secured for him the confidence of all who knew him.

PADDLE YOUR OWN CANOE.—Judge S. gave his son a thousand dollars, telling him to go to college and graduate. The son returned at the end of the Freshman year without a dollar and with several ugly habits. About the close of the vacation the Judge said to his son:

"Well, William, are you going to college this year?"

"Have no money, father."

"But I gave you a thousand dollars to graduate on."

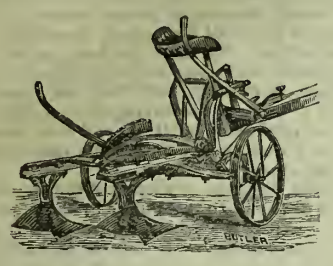
"It's all gone, father."

"Very well, my son; it was all I could give you; you can't stay here; you must now pay your own way in the world."

A new light broke in upon the vision of the astonished young man. He accommodated himself to the situation; he left home, made his way through college, and gradnated at the head of his class, studied law, became Governor of the State of New York, and entered the Cabinet of the President of the United States.

Agricultural.

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

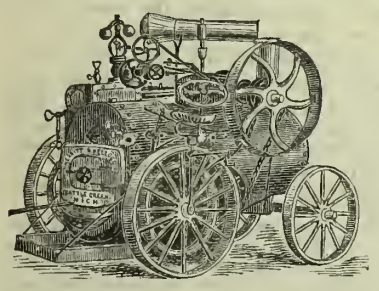
14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

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And also a superior Iron Axle Wagon.

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John Deer Moline Plow.

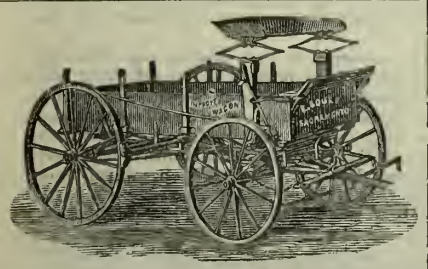
Also COLLINS' PLOW (Smith's Patent).

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Butter Caddies,		Strawberry Chests,
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☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

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Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

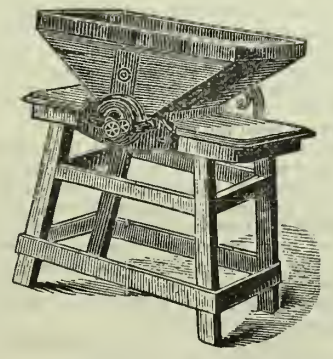
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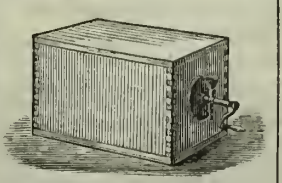
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Stock Notices.



SULTAN SECOND.

See description in Pacific Rural Press January 4, 1873

Address N. GILMORE,
2v5-eow El Dorado, El Dorado County, Cal.

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough-bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

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fe15-2m Oroville, Butte County, Cal.

THOS. BUTTERFIELD & SON,

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THE ANGORA GOAT.



Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

19v4-tf THOS. BUTTERFIELD & SON, Hollister, Monterey County, Cal.

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Will be sold at auction, on the Agricultural Fair Grounds, Sacramento, TUESDAY, February 25th,

The Entire Herd of Short-Horned Cattle

Belonging to R. M. SPARKS, of Marysville,

Consisting of Five (5) Bucks and Seven (7) Cows and Heifers; also, Twenty-five Berkshire Pigs from four to six months old.

Pedigrees of the above stock guaranteed.

Seven months credit on notes with approved security will be given. Interest, 1 per cent. per month.

ROBERT BECK.
Sacramento, February 5, 1873. f8-3t

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I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermout and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

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PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[Reported Officially for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Feb. 18th, 1873.

For Week Ending February 4th, 1873.*

Canteen.—Richard Kelly, Red Bank, Cal.

Car Stake Supporter.—Wm. H. Masterman & Wm. T. Hooper, Stockton, Cal.

Peg Rasp.—Jeremiah W. Foard, S. F., Cal.

Finger Bar for Harvesters.—Chas. A. Smith, Napa, Cal.

Curing Tobacco.—James D. Culp, Gilroy, Cal.

Railway Snow Plow.—W. Walker, Fort Bridger, Wyoming Territory.

Black Board Eraser.—Winfield S. Read, Oakland, Cal.

Harvester Cutter.—Warren Wasson, Phineas F. Powers, Geo. W. Dungan, of Genoa, Nevada.

Design.

Center Piece.—Samuel Kellett, S. F., Cal.

Trade Mark.

I. X. L. Metal Co.—Anti-Friction Metal and Journal Bearings for St. Louis, Mo., and Sacramento, Cal.

Following is a list of inventions patented in England by inventors in the Pacific States and Territories from Aug. 6th to Dec. 31st, 1872:

Washing Ores.—W. Rickard, Monitor, Cal. Dated Aug. 28, '72.

Utilizing Hydrocarbons, Etc.—Perry Franklin Goodrich, S F., Cal. Dated Dec. 3, '72.

Railroad Coupling.—H. Clay Kibbe, S. F., Cal. Dated Dec. 6, '72.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Vineyard Culture.

Editors Press:—An article from H. W. C. in your issue of Feb. 1st, relative to vine planting, attracted attention and causes my offering a few ideas and suggestions that may serve to interest if not benefit those of your readers engaged in or contemplating a vineyard. The subject is one deserving of more consideration than it is possible to give it in so short an article. Grape culture, now that we are competitors in the markets of the world, is quite a different thing from what it has been heretofore with a limited and home demand to supply. To do so successfully it will be found necessary to have an understanding of all things pertaining to the subject as well as improving the advantages conceded as belonging to the cultivation of the vine in this State.

Of the many things effecting this interest that of location comes first in order, as an unfavorable selection cannot be obviated or overcome. It will prove the source of successive disappointments and ultimate failure. Its careful consideration is well understood by all European grape growers, and practiced upon if possible. Experience proves that although the vine will grow in almost any location, no fruit is more susceptible to the influences of soil, climate and position, or is so radically changed by them as the grape. The present depression and universal complaint show conclusively that our natural advantages have not been improved upon; nor have we availed ourselves of the knowledge and experience of those coming from countries where the vine has been grown for centuries. Nevertheless it is the conviction of nearly every one that it is yet to prove the leading interest, and long after California ceases to be an exporter of the cereals and precious metals the vine will write itself *Direge*.

The variety of grape or grapes comes second in order; in this, however, there is a wide range for choosing, the purpose for which they are intended will, to a great extent, determine selections. An error here is not so important as in that of location, as it can be corrected by grafting, budding or resetting. An excellent plan, however, is to choose from those varieties only that are well known as thrifty growers and abundant bearers. The question has been well settled with practical and observant men that a vineyard stocked with a few and well selected vines is superior to one where all the varieties named in the catalogues can be found. It is not to be expected nor is it possible for any one at the outset to determine upon just the kinds that will be required. The want can be supplied from time to time, as stated above. There are some varieties, however, which from their well-known habits and established excellence render them popular and deserving a place in every vineyard.

The White Muscat of Alexandria heads the list for its general excellence as a wine, drying and table fruit. The Zinfindel, Black Malvoisa and Black Hamburg for Wine and the table; Johannisberg Riesling and Burger for the fine light wines, as well as hardiness and being abundant bearers. The list would not be complete without the Native or Mission. No vineyard should be without it. As a regular bearer and thrifty grower in almost every location; as a stock for budding or grafting upon also, it has no equal.

Cuttings should be from 18 to 24 inches in hight, taken from well-ripened wood of the previous years' growth; cut squarely and smoothly just below a bud. Cutting from the middle or top end of branches should be avoided; they are not as sure to root or as vigorous as those from the butts or ends nearest the old wood. Frequent disappointment and serious losses occur from carelessness on the part of those putting up cuttings, by exposing them to the action of the sun and the drying north winds, after pruning. It is claimed that changing from one district to another will destroy their vitality. The complaint was general throughout Napa Valley the past season from those purchasing cuttings in Sonoma on their proving worthless, the writer losing nineteen-twentieths of those obtained from that source. It is desirable to keep cuttings in a dormant state until they are ready for setting in the vineyard row, as the tender shoots are liable to be broken, which retards their growth, and oftentimes destroys them altogether. The best manner for keeping them back is to put them at the pruning into shallow trenches, top end down, covering the butts with loose earth, and over that throw some straw and boards. Care is necessary that the trenches are in dry ground, as excessive moisture rots and destroys the vines. Immerse the cuttings to within three or four inches of their top ends a day or so before setting, if the ground should not be wet enough or they appear dry or withered. A thorough preparation of the ground intended for a vineyard is necessary. This can be done with the ordinary mould-board plow, followed in alternate furrows by a bull-tongue (as it is termed), a style of sub-soil plow so constructed that it stirs and breaks the ground without throwing it over. It has much to recommend it; in being easy upon man and beast. Effective and economical, no plow equals it for working rocky or gravelly soils. Its cost need not exceed ten or twelve dollars, and any fair blacksmith can make one.

Planning a vineyard as it ought to be, very frequently requires calculation and study, for gaining all the advantages of the location, to satisfy the geometrical taste and eye, as well as considering economy in its future cultivation and working. To ensure accuracy in spacing as in the tangents, angles, etc., it is necessary to establish a base line as a starting point for all. A chain or measure of galvanized or annealed wire (with an occasional swivel to prevent kinking) is indispensable. This chain should be 208 feet 9 inches long, divided into 30 spaces of 83½ inches, each by 31 indexes, made of solder or copper buttons bent around it and firmly fastened. As an acre contains 43,560 square feet, it will be seen that a square measuring 208.75 feet on a side, approximates near enough for all purposes. Land laid off into squares and spaced as indicated, gives acre blocks with 31 rows on each side and room for 930 vines. A vineyard for working easily requires frequent open spaces, avenues double in width to the distance the vines are set, should be laid out on each side of the squares; the reason for this is to have the rows of vines range perfectly in all directions. When the ground has been properly prepared, there is no way for setting vines as economically, rapidly and with the certainty of their living as with the dibble.

This tool can be made, at a cost of from seventy-five cents to a dollar, from ⅜ to ½ inch round iron, five feet long, sharp pointed and tipped with steel at one end with a step or foot rest welded upon the side, eighteen or twenty inches from the pointed end.

That the hill sides and bench lands having the proper exposure are to be the chosen spots for our future vineyards is admitted by all understanding the nature of the grape; and especially those who by cultivation have proved the superiority of fruit grown on them to that produced on the alluvial and bottom lands. An illustration is given in the marked success of Messrs. Burrage & Tucker in their Glen Mountain Vineyard, near Yountville.

Yours, G. C. Pearson.

Letter From Washington.

Editors Rural:—I have to thank you for the Rural Press, which I find every week on my table. Although not even an amateur farmer I look carefully through every page, advertisements and all. There is an exotic flavor in it, and it seems hardly credible that this number should have been printed little more than a week ago, and for farmers who were bringing in their new crops of raisins, and putting in their wheat. It is as if the Old Farmers' Almanac were inverted, the snow had got into the July column and we were warmed all through the last two week of January, to "look out for thunder showers and hot weather about this time." I see by this number (January 25th) that you are "comfortable with a linen coat or no coat." Without turning my head I can look out over the snow-burdened roof and see the Virginia hills white with the same cool covering. I, too, am comfortable in a thin coat, but then I am within four feet of a half bushel of red hot anthracito. The Potomac is frozen over for miles below Washington. Above the Long Bridge there are square miles of ice. Some spaces are smooth and the boys skate over them, but for the most part, the masses of thick ice have been broken into blocks, and are piled up in hummocks and ridges, and cemented by snow and rain and the hardest sort of freezing, and not even Old Probabilities knows when it is going to thaw. There is a Philadelphia steamer frozen in, in a way that would astonish the ghost of Dr. Kane. An Esquimaux Indian would feel perfectly at home, so far as view could console him, on Gen. Grant's back door-step, and a white bear would not be out of order in the landscape. Indeed that animal might easily be imagined to take the place of the fabulous bull pups supposed to guard the entrance of the White House. Our thermometers have been as low as 16° below zero. Meantime my wife, (who is spending the winter at Santa Barbara), writes that the Santa Barbarians dare eat green peas and strawberries. Have they patriotism? How can they digest such luxuries, while the frosts at the Capital set glass walls at defiance and freeze the Presidential camelias, and then every member of Congress must content themselves with last year's potatoes and canned peaches from Maryland.

Old residents say that this is an exceptional winter, but, as almost every one of the ten or twelve winters I have spent here has been an exceptional winter, the assurance gives me small comfort.

You will understand then with what zest I turned by back on the dreary Arctic landscape, put my feet on the fender, to help out the illusion, and read in the Rural Press of "delicious sunlight and warm quiet air" around San Francisco. Next July, when our thermometers, if they stand the strain of this winter, will be at 100° in the shade, when the thinnest linen will be too thick, when nothing but fresh air requires more apparel than fans and umbrellas, and we can't eat anything but ice creams, then I shall look for items relating to the cool breezes that blow through the Golden gate. Oh twice happy Californians! never hot and never cold. But don't get proud, remember the earthquakes. Ellis Spear.

Washington, D. C., Feb. 1st.

Behind the Curtain.

Eds. Pacific Rural Press:—Perhaps the time has not arrived when it would be judicious to raise a doubt as to the infallibility of the Press. According to the present newspaper arrangement, it is the province of the reader to be enlightened and amused by his favorite journal, without reflecting back a single ray of sense or wit. He is daily advised on the most delicate, as well as the most ordinary topics; but no advice is required of him in return. He has no means of conveying even an admonitory hint to the editor, whose brain is perhaps becoming softened by its excessive labor in his behalf. But if the two parties *could* be brought together on an equality of communication, the newspaper reader might possibly remove the scales from the eyes of his guardian, in regard to the true relationship between advisers and the advised.

He might, to open the subject in an inoffensive way, assure his editorial friend that the country is prepared to bear the whole truth in regard to the actual condition of trade and industry; and the public would no doubt sustain him if he were to declare to the editor that he is by no means serving the interests of any calling by endeavoring to invest it with a charm, which it does not possess, or withholding facts of a sombre hue. And the journalist may possibly be made to realize that indiscriminate praise, or a too favorable estimate of the condition and prospects of any locality, or of any department of trade or industry, are of as little effect for good and are as unpalatable to the public, as his nauseous editorial "Personals."

In no case has this doubtful service been rendered more persistently, or with greater detriment, than in that of agriculture. The excessive praise which orators, and newspaper and other writers have bestowed upon the farmer and his calling, is offensive even to those upon whom it is lavished, and has really been an injury to the cause which it was meant to serve. The initiated look upon it as a silly romance, while those who have been induced by those unsubstantial views to enter upon agricultural life, have found them gross misrepresentations.

They meet at the very threshold of this land of promise, cares and annoyances for which they were entirely unprepared, and the comforts and pleasures of country life, when found, do not correspond with the popular notion in regard to them. Rural bliss is found to be a mere make-believe, and when anything beyond a mere living is looked for, it soon becomes evident that the risks involved are about as great as those connected with other enterprises, with scarcely more certainty of even a fair return.

The agricultural products of California, when arrayed before the public in the form of statistics, make a fine display; are supposed to excite the admiration of the world; and seem to warrant confidence in the resources of the State; but a review of the financial condition of the individuals who produce the wealth, would reveal the fact that in this field of industry the laborer does not receive his hire, no matter how worthy he may be of it.

Comparisons are frequently drawn between the condition of Eastern farmers, and that of the ranchmen of California; and a person visiting what are called the rich farming districts of the East, would very naturally conclude that here at least real prosperity, comfort and contentment are to be found. A brief residence in their attractive spots will disclose a state of things that is a sufficient explanation of the cause of the youth of the country seeking for employment in the cities. A large portion of these splendid farms are mortgaged to city money-lenders, and the more we become acquainted with the true spirit of these, seemingly, happy homes, the more evidence we see of discontent, discouragement, and failure. We find that here, as well as in the newer countries, crops are eaten before they are harvested; and that the rising generation of farmers are leaving their country homes from prudential motives, and not altogether from a wish to "rush into the vices and follies of the cities."

"Well, now," say the advocates of the spoon-victual diet dealt out to the public by the press, "of what possible use can an expose like this be to the community, even though it be the correct view of the existing state of things? In the first place, it should be given simply for its correctness; and leave it to work out its own good results. Some of these results may be easily foreseen. It would enable those who are about entering agricultural pursuits to go into them with some idea of the difficulties to be encountered; and, being partially prepared to meet the obstacles that are sure to come in their way, they will serve the cause and their own interests also more effectively than if their expectations were grounded upon the delusive representations of the press. Those who are permanently engaged in this calling would be more inclined to trace out the causes of the difficulties that surround them, and would be better able to apply the proper remedies, if the subject were divested of the popular delusions. At present the published programme of the public entertainment compels them, as it were, to bedeck themselves in tinsel garments, and assume a manner far from corresponding with their actual condition and feeling.

This paper-collar adornment has been adopted by every subject before the people, as well as by the people themselves. The neatness and economy of the article are sufficient inducements for its adoption in both cases; and we would by no means advise a return to their more costly but less neat linen predecessors. We would simply wish to have them considered, in the connection to which we have alluded, as no indication of the quality or cleanliness of the garments which they are supposed to represent. H. B.

Oranges at Home.

Some of the finest oranges and lemons ever seen in this market have been produced within thirty miles of San Francisco. Dr. Strentzel's orchard, near Martinez, has become famous for the size and quality of the oranges produced; and yet it is hardly more than two hours distant from this city. Of course, there are some advantages of shelter from high winds, and whatever other protection hills afford. But the proprietor has only done what might be done in other places. He has made, through intelligent industry and skill, a few acres of ground of more value than some of the largest cattle ranches in the State.

We have seen oranges just taken from the trees on the Vallejo ranch, in Sonoma Valley, superior in size and other qualities to those brought up from Southern California, and actually selling in the market at $1 50 a hundred more than the latter. The lemons from the same orchard were as handsome as one often sees in the market. The last mentioned orchard is not more than forty miles from the city. Very handsome oranges and lemons are also grown at the old mission San José, in the orchard owned by Mr. Beard. This point is not more than thirty miles from the city, and is actually in sight from the hills on a clear day.

We have never yet heard of any extensive damage to orange or lemon trees in this State resulting from cold weather. Small orchards have been planted as far north as Butte county, and the fruit has invariably come to perfection. Probably orange trees would thrive as far north as Red Bluff, in the warm and sheltered valleys.

The new crop is now coming up from Los Angeles, and the best are selling at from $5 to $6 a hundred, with a large advance by retailers. It may yet turn out to be a fact that there is as large an area suitable for orange culture north of the Bay as is found south of it. Given a sheltered valley, with a rich, warm loam, above the floods of winter, and where a partial irrigation can be secured, and one might expect orange trees to flourish with as much certainty as the peach, almond or apple. There are hundreds of these small valleys in Sonoma, Napa, Solano, Yolo, Butte, and other counties where every known condition of orange culture would be favorable.

Thousands of young orange trees are finding their way to this city from Los Angeles county, a large proportion of which are sold to go into districts north of the Bay. When one man makes a successful experiment, there are hundreds ready to take a practical hint from the results. The trees now in bearing in the small orchards north of the Bay are from seven to ten years old. They attracted little attention until a yield of superior fruit was brought to market. But this fact goes to the very bottom of the objection that oranges cannot be successfully grown north of the Bay. Here they are commanding a premium in the market over those grown 400 miles farther south.—*Bulletin.*

S, F. and Liverpool Average Prices of Whea

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡—Average monthly decrease.

¶—The difference here noted is that between the average price of average shipping wheat in S F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873	SAN FRANCISCO.							LIVERPOOL BY TEL.				
DATE.	COAST.	VA.	SHIPPING.	VA	MILLING.	VA.	CALIFORNIA AVERAGE.		CALIFORNIA CLUB.		DIFF. ¶
Jan 20	1 82½@1 92½	....	2 00 @2 10	....	2 10 @— —	....	3 03 @3 05	— —	@— —		1 09
21	1 82½@1 92½	....	2 00 @3 10	....	2 10 @— —	....	3 05 @3 09	3 15	@3 23		1 02
22	1 82½@1 92½	....	2 00 @2 05	†2½	2 00 @2 10	†5	3 05 @3 09	3 15	@3 23		1 01½
23	1 82½@1 92½	....	2 00 @2 05	....	2 00 @2 10	....	3 05 @3 09	3 15	@3 23		1 01½
24	1 80 @1 90	†2½	1 90 @2 00	†2½	2 00 @— —	†5	3 03 @3 07	— —	@— —		1 10
25	1 80 @1 80	....	1 90 @2 00	....	2 00 @— —	....	3 03 @3 07	— —	@— —		1 10
27	1 80 @ 90	....	1 90 @2 00	....	2 00 @— —	....	3 03 @3 07	— —	@— —		1 10
28	1 80 @1 90	....	1 90 @2 00	....	2 00 @— —	....	— —	— —	@— —		— —
29	1 75 @1 85	†5	1 90 @1 95	†2½	1 90 @2 00	†5	3 00 @3 03	— —	@— —		1 09
30	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	3 00 @3 03	— —	@— —		1 09
31	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07	@3 19½		1 07½
Feb. 1	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07	@3 19½		1 07½
3	1 75 @1 85	..	1 90 @1 95	..	1 90 @2 00	..	2 98 @3 01	3 07	@3 19½		1 07½
4	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98 @3 01	3 07	@3 19½		1 07½
5	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 96 @2 99	3 05	@3 18½		1 05½
6	1 60 @1 85	†7½	1 90 @1 92½	†1¼	1 90 @1 97½	†1¼	2 96 @2 99	3 03	@3 18		1 06¼
7	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 97½	....	2 96 @2 99	3 05	@3 18		1 06¼
8	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 86 @2 99	3 05	@3 18		1 05¼
10	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 96 @2 99	3 05	@3 18		1 05¼
11	1 60 @1 80	....	1 90 @1 92½	....	1 90 @1 92½	....	2 92 @2 97	3 05	@3 18		1 03¼
12	1 60 @1 80	†7½	1 85 @1 90	†3¾	1 85 @1 90	2¾	2 92 @2 97	3 09	@3 23		1 03¼
13	1 60 @1 75	....	1 85 @1 87½	†1¼	1 85 @1 90	....	2 91 @2 95	3 09	@3 23		1 03¾
14	1 60 @1 75	....	1 85 @1 87½	....	1 85 @1 94	....	2 93 @2 95	3 09	@3 23		1 07¾
15	1 60 @1 75	....	1 85 @1 87½	....	1 85 @1 90	..	2 93 @2 95	3 09	@3 23		1 07¾
17	1 60 @1 75	....	1 85 @1 90	* ¼	1 85 @1 90	.	2 93 @3 00	3 09	@3 23		1 06½
18	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93 @2 95	3 09	@3 23		1 06½
19	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93 @2 95	3 01	@3 17		1 06½
Extreme advance..		.....		.....		.....					.....
Extreme decline..		22½		17½		19					.....

Comparative Prices of Wheat.

1872 Dec	S. F. SHIP.	LIVERPOOL. TELEGRAPH*	LIVERPOOL. MAIL.†	DIFF. BET. S. F. and Teleg'h.	DIFF. BET. Mail and Teleg.
17	1 95	2 91@3 01	2 99@3 21	1 11	14
20	1 95	2 93@3 01	2 99@3 21	1 11	11
24	1 95	2 93@3 01	3 03@3 22	1 11	11
27	1 92½	2 95@3 01	3 05@3 6	1 13½	11
31	2 05	3 08@3 12	3 11@3 33	1 17	12
1873 Jan					
3	2 05	3 12@3 16	3 11@3 33	1 17	8
7	2 11½	3 12@3 16	3 11@3 33	1 10¾	8
10	2 08¾	3 10@3 14	3 07@3 29	1 09¼	6
14	2 02½	2 97@3 01	3 10@3 16	96½	14
17	2 05	3 03@3 05	3 12@3 18	1 10	11
21	2 02½	3 06@3 08	3 07@3 27	1 14½	10
24	2 02½	3 04@3 06	3 05@3 25	1 12½	10

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of said Associated Press Average California Wheat. In a few instances Club are given. These we have not d by the mark ‡, except on the 20th of December, when Club was quoted at $3.17, and the difference between the average of the hi hest quoted of Club and the lowest quoted of average by telegraph to the Merchants' Exchange, and the prices quoted in the *Mark Lane Express* was four cents.

†—The e are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—Telegraphic quotations of Club wheat.

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday M., Feb. 19th, 1873.

We may say nearly the same of the market for the past week as we did for the preceding one, to wit: that it was exceedingly dull—the Wheat market has now, however, assumed a slightly improved tone. Already all interested are beginning to look forward to the quantity, value and means of transporting the new Wheat crop to England, the immensity of which has been rendered certain by the late seasonable rains. The *Bulletin* thinks that allowing it to be 50 per cent. in excess of that of last year, that only 450 ships will be required. This, however, is a mistake, for taking the *Bulletin's* own estimates the crop would be 21,750,000 centals, for which deducting 4,500,000 for domestic needs there would remain a balance of 17,250,000 for export. Allowing that we only exported 16,500,000 in Wheat, the balance being Flour, we would require over 600 ships, as the cargoes of those which have left this year for England have averaged only 27,690 centals each.

RECEIPTS.—Receipts have been moderate for the past week. Flour has been nearly the same with the previous week, there has been a large increas of nearly fifty per cent. in the receipts of Wheat, those of Barley have increased, so also have those of Oats; of Bran we have received five times the amount of the previous week; Middlings have somewhat fallen off; the receipts of Potatoes have slightly increased; those of Onions and Hides have fallen off; those of Wool have increased, as also have those of Hay. Wine receipts have fallen off nearly one-half.

We summarise receipts of Bay Produce to date as 13,200 quarter sacks of Flour; 236,814 centals of Wheat; 4,386 do of Barley; 416 do of Oats; 14 do of Corn; 917 do of Beans; 14 do of Peas; 2,970 do of Bran; 511 do of Middlings; 2,759 do of Potatoes; 588 do of Onions; 18 do Mustard Seed; 268 Hides; 85 bales of Wool; 876 tons of Hay; 78 tons of Straw; 15,240 gallons of Wine; 400 do of Brandy; 82 tons of Salt, and 74 barrels and 76 half barrels of Beet Sugar.

Receipts of Wheat at Oakland wharf are still small being only 24,000 centals, or 120 car loads, during this week

Receipts from coast ports have been small during the week, there having been only four cargoes. We summarise 3,912 centals of Wheat, 115 do of Barley, 570 do of Oats, 477 do of Beans, 1,511 do of Corn, 79 do of Flax Seed, 79 Hides, 24 pipes, 7 puncheons, and 3 hhls of Wine and 4 bhls Brandy.

BARLEY.—Barley has not improved any during the week just closed, still remaining at nearly the same rates as those last quoted. We note sales of 250 sacks of Dark Coast at $1.15, 600 do at $1.20, 1,800 do Bay Feed at $1.22½, 2,100 do at $1.25, 550 do at $1.27½, and 2,400 do at $1.30.

FLOUR.—The market price remains stationary. Exports last week were smaller than during the week preceding. They aggregate 100 bbls, 3,402 half sacks, and 8,742 quarter sacks, sent to Honolulu, Punt Arenas, New York, Panama and Tahiti.

HAY.—Receipts last week have been freer than for some time past. We note sales of 15 tons of Fair at $16.50, a cargo of Mixed Wheat at $17.50, 15 tons of good Wild Oat at $18, 150 do of Volunteer Oat at $19, and 30 tons of fair Wheat at $20.

HOPS.—We have no sales to report. The Market is exceedingly dull. Latest English advices quote markets for best English from 25½ to 34 cents per lb.

OATS.—Oats remain firm at last week's quotations, but there are hardly any receipts or sales. We note sales of 200 sacks of Feed at $2.07½, 150 do choice Milling at $2.25 and 250 do at private rates.

POTATOES.—Receipts of Potatoes have fallen off during the last week, yet they remain almost a drug in the market. We note sales of 100 sacks of Sweet Potatoes, which are almost out of the market, at 75c to $1, 350 do of Punt Arenas at $1.10, 200 do of Bodega at 70 to 75 cents, 350 do of Petaluma at 70 cents, 350 do of Bodega and Petaluma at 70 to 75 cents, 1,700 do of Humboldt at 95 cents to $1, 300 do of Common at 75 cents, and 900 do at 50 cents.

WHEAT.—Receipts last week were average though much behind those of many previous weeks. They aggregated 264,726 centals. Exports were very large last week, and sufficient, were they equally as large for six weeks more to carry away all the balance of last year's crop available for export. Prices have improved a little towards the close of the week. Average Wheat in Liverpool has improved slightly, being quoted to-day by Merchants' Exchange and Associated Press at $2.93@$2.95. Club is quoted at $3.08@$3.17, a decline of from 6 to 8 cents, but we need hardly say that we regard the Club quotations as entirely fictitious. We note sales of 570 sacks of common and fair at $1.70, 2,000 do inferior at $1.72½, 200 do common at $1.75, 2,000 of medium Coast at $1.80, 3,700 do of fair at $1.82½, 1,600 do of shipping and milling at $1.88, 15,000 at $1 87½ and 2,780 do at $1.90.

Exports have included per "Annie W. Woston," to Liverpool, 23,756 centals; per "Two Brothers," to Liverpool, 40,089 do; per "Elmstone," to Queenstown, 22,025 do per "Sancta Bega," to Cork, 15,250 do; per "D. C. Murray," to Honolulu, 37 do; per "Volunteer," to Queenstown; 34,541 do; per "Locksley Hall," to Liverpool, 40,313 do; per "Stephaine," to Queenstown, 9,156 do; per "Pactolus," to Liverpool, 34,582 do; per "Colombo," to [illegible], 39,250 do; per "Vancouver," to Liverpool, 33,025 do; per "Cooringa," to Liverpool, 26,508 do and per "Nautilus," to Tahiti, 40 do; making a total of 11 cargoes and 2 shipments of 3 8,646 centals worth $633,260.

WOOL.—The market is very dull. Buyers are offering 22 to 25 cents for Spring. We note sales of 18,300 pounds of Fall and 30,000 pounds of Spring.

GENERAL MERCHANDISE.

Our exports for the past week have been very large, being carried in 15 vessels, and aggregating a value of $795,087. Besides the cargoes of Wheat there have been general cargoes to Honolulu by the "D. C. Murray;" to Punt Arenas by the "Chocola;" and to Tahiti by the "Nautilus." The "Costa Rica" carried amongst other exports, 1,106 gallons of Brandy, 8,269 gallons and 80 cases of Wine, and 4,270 gallons of Whale Oil to New York, 200 flasks of Quicksilver to Panama, and 39,045 pounds of Coffee, 35 bales of Cotton, and 15 packages of Leather to England. These last exports are of peculiar importance as showing how the area of our commerce is extending. Imports have included per the mail steamer "Japan," from Hong Kong, 10,416 packages of Tea, of which 6,436 were for San Francisco; 2,346 bags of Rice, and 50 boxes of Opium, also for San Francisco; the "Prince Alfred" from Victoria, brought a miscellaneous cargo, and the "Carmsinne" from Hong Kong, brought 23,595 bags of Rice, as well as a large general cargo.

Business of all kinds has been exceedingly dull. Canned Goods and Bags have been very dull, as is usual at this time of year. Pig Iron has an upward tendency. Fish and Provisions in general are dull and prices are nominal. Eastern Bacon has declined. Oils are dull. There is a better feeling in Rice. There is more movement in Lumber than there has been for some time past. Eastern Lumber is very dull. Walnut is now fetching only $100, and Oak only from $90 to $100. The market for Teas is weak; that for the new season Japan Teas will not begin again till May. Sugar has been reduced in price. We note sales of 10,000 barrels of Refined Sugar during the week. The stock of Coffee is light. Prices remain unchanged, though they are very high at the East. Tobacco is quiet. Metals remain unchanged.

LUMBER MARKET.

CARGO PRICES RED-WOOD.		PUGET SOUND PINE—Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	30 00
Rustic, ₱ M	35 00	Laths, ₱ M	4 00
Rustic refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00		
Flooring refuse, ₱ M	20 00	REDWOOD—Retail Price.	
Beaded flooring, ₱ M	32 50	Rough Pickets, ₱ M	18 00
Beaded floor, refuse, M	22 50	Rough Pickets, p'd, M	20 00
Half-inch Siding, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch siding, ref. M	16 00	Siding, ₱ M	27 50
Half inch, Surfaced, M	25 00	Tongued and Grooved,	
Half inch Surf. ref., M	18 00	surfaced, ₱ M	40 00
Half inch Battens, M	22 50	Do do refuse, ₱ M	27 50
Pickets, rough, ₱ M	14 00	Half-inch surfaced, M	40 00
Pickets, rough, p'nted	16 00	Rustic, ₱ M	42 5
Pickets, fancy, p'nted	22 50	Battens, ₱ lineal foot	5
Shinglee, ₱ M	3 00	Shingles ₱ M	3 00

DOMESTIC PRODUCE.

Wednesday M., Feb. 19, 1873.

BEANS.			
Beans sm'l w ite	3½@	3¾	
do. butter	4½@	—	
do, large, do	4¾ @	5	
do, b'yo	3½ @	3½	
uo, pink	4 @	4½	
do, pea	3 @	3¼	
BROOM CORN.			
Per ton	$40@120		
DAIRY PRODUCE			
Butter, Cal. fresh	—	@ —	
do, ordin'y roll	37½@	42½	
do, choice	45	@ —	
do, new firkin	45	@ —	
do. packed	—	@ —	
do, New York	25	@ 32½	
Cheese. Cel new	15	@ —	
do, Eastern	15	@ 18	
Eggs. Cal. fresh	30	@ —	
do Oregon	—	@ —	
do, Eastern	—	@ —	
FEED			
Bren per ton	18 00	@ —	
Middlings	26	@27 50	
Hay	16 00	@23 —	
Straw	10 00	@ —	
Oil cake meal	30 00	@ —	
Corn Meal	$3 00	@40—	
FLOUR.			
Alviso Mills, bbl.	4 25	@5 00	
California	4 25	@6 00	
City Mills	4 50	@6 00	
Commer'l Mills	4 50	@6 00	
Golden Gate	4 50	@6 00	
Golden Age	4 50	@6 00	
National Mills	4 50	@6 00	
Santa Cla aMille	4 50	@6 00	
Genesee Mills	4 50	@6 00	
Oregon	4 50	@6 00	
Vallejo Star	4 50	@6 00	
Venus, Oakland	4 50	@6 00	
Stockton City	4 50	@6 00	
Lombard. Sac.	4 50	@6 00	
FRESH MEAT.			
Beef, fr quality	9	@ —	
do, second do	7	@ 8	
do. third do	6	@ 7	
Veal	9½	@ —	
Mutton	7½	@ 8	
Pork, undressed	6½	@ 6⅝	
do, d essed	8¾	@ —	
GRAIN, ETC.			
Wheat Cal. coast	1 60	@1 80	
do, shipping	1 85	@2 90	
do, milling	1 85	@1 94	
do, Oregon	1 85	@1 90	
Barley, Dark Coast	1 17½	@1 25	
do, Light	1 20	@1 30	
do, Brewing	1 30	@1 35	
Oats, Coast	2 00	@2 12½	
do, Light	2 12½	@2 25	
Corn, White	1 20	@1 25	
do, Yellow	1 20	@1 25	
Buckwheat	1 62½	@ —	
Rye	2 00	@ —	

HOPS.			
California, 1871, ₱	—	@ —	
do 1872	45	@ 50	
Eastern, 1872, ₱	62½	@ —	
MISCELLANEOUS.			
Beeswax, per lb	30	@ 37½	
Honey, choice	12	@ 14	
Los Ang. Honey	15	@ 20	
Onions	2¾	@ 3	
Flaxseed	2	@ 3	
anary do	4½	@ 6	
Mustard do, white	1½	@ 1¾	
do, brown	2	@ 2½	
Peas, Chili	25	@ —	
Alfalfa	35	@ —	
Ky. Blue Grass	50	@ —	
Timothy	18	@ —	
Italian Rye	35	@ —	
Perennial do	55	@ —	
NUTS.			
Peanuts per lb	5	@ 6	
Pecan nuts	10	@ —	
Hickory do	10	@ —	
Brazil do	16	@ —	
Prince Almonds	—	@ —	
Cocoanuts, $100	100 00	@ —	
Almond's hell	—	@ 15	
do, soft	23	@ 25	
POTATOES.			
Sweet, per lb	—	@ —	
Humboldt	1	@1 12½	
Monterey	1	@ —	
Tomales	1	@ —	
POULTRY AND GAME.			
Live Turkeys lb.	20	@ 21	
Hens, per dz	9 00	@10 00	
Roosters	9 50	@10 50	
Chickens	7 00	@8 00	
Ducks, tame, doz	12—	@14—	
do, Mallard	4	@5 —	
Geese, per pair	2 75	@3 75	
Quail, per doz	2 25	@2 50	
Hare, per doz	4 —	@4 50	
Rabbits, each	1 50	@2 00	
Snipe, Eng., doz	—	@3 50	
do, small, doz.	50	@ 75	
Venison, per lb	—	@ —	
PROVISIONS.			
Cal. Bacon, per lb	12	@ 13	
Eastern do	11½	@ 41½	
do sugared	12	@ 15	
Cal. Hams	13	@ 15	
Eastern do	14½	@ 15	
Cal. Smoked Beef	11	@ 12½	
WOOL, ETC.			
Choice Nor'n fall	20	@ 21	
do spring	23	@ 31	
Sandy	15	@ 18	
Burry	12	@ 14	
Oregon	—	@ —	
Hides, dry	20	@ 90	
do green	9	@ 9½	
Tallow	7	@ —	

FRUIT MARKET.

Oranges are in good supply, coming from Los Angeles. Some are expected from the north of the State. The supply of lemons is only medium. Limes are very scarce. Dried apricots are also scarce.

FRUIT MAKRET.			
Mex. Oranges per 1000	—	@ —	
C. I. do	25	@10 —	
Limes, ₱ M	25 0	@50—	
Cal. Lemons, 100	$ 50	@4 —	
Messina do., bx	—	@ —	
Bananas, ₱ bunch	—	@ —	
Pineapples, dz	—	@ —	
Apples, eat'g, bx	1 50	@2 50	
" Cooking	1 25	@1 75	
Pears, Eating	1 75	@3 00	
" Cooking	1 00	@1 50	
Pomegran's, ₱ 100	—	none	
Grapes, Mission	—	none	
Rose of Peru	—	@ —	
Blk Hamburg	—	@ —	
Black Prince	—	@ —	
Muscat of Al'r	—	@ —	
Flame Tokay	—	@ —	
Black Morocco	—	@ —	
Wine Grapes	—	@ —	
DRIED FRUIT			
Apples, ₱ lb	6	@ 8	
Pears, ₱ lb	5	@ 8	
Peaches, ₱ lb	10	@12½	
Apricots, ₱ lb	—	@—	
Plums, ₱ lb	5	@ 8	
Pitted, do ₱ lb	18	@22½	
Raisins, ₱ lb	8	@12½	
Black Figs, ₱ lb	8	@12½	
White, do	15	@20	
VEGETABLES.			
Cabbage, ₱ dz	50	@62½	
Garlic, ₱ lb	5	@—	
Green Peas	12½	@ —	
Green Corn ₱ doz	—	@—	
Marrowfat Squash per ton	7 50	@8	
Artichokes, ₱ lb	3	@—	
Tomatoes L. A. ₱	12½	@15	
String Beans, ₱ lb	—	@—	
Lima Beans	8	@—	
Peppers dry	25	@—	
Okra	35	@40	

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	15¼	@ —	
Flour Sacks ½s	16¼	@ —	
" ¼s	8½	@ 9¼	
Stand. Gunnies	17	@ 17½	
" Wool Sacks	—	@ 70	
" Barley do	16	@ —	
Hessian 9-in gds	12	@ 12	
do 60	17	@ 17½	
CANNED GOODS.			
Asst'd Tutti Frutti Pie Fruits, in 2½ lb cans	3 75	@ —	
Jams & Jellies	4 —	@ 4 25	
Pickles ½ gl.	3 25	@ —	
COAL—Jobbing.			
Australian	15 00	@ —	
Coos & Bel. Bay	15 00	@ —	
Seattle	16 00	@ —	
Cumberl'd, ckd	25 00	@ —	
do bulk	22 00	@ 22¾	
Chile	—	@ —	
Lehigh	22 00	@ —	
Liverpool	12 00	@ —	
West Hartley	16 00	@ —	
Scotch	15 00	@ —	
Scranton	18 00	@ —	
Vancouver's Isl	14 00	@ —	
Charcoal, ₱ bk	00	@ —	
COFFEE.			
Costa Rica per lb	19	@ —	
Guatemala	16	@ 18	
Java	22	@ —	
Manilla	17	@ —	
Rio	—	@ —	
Ground in can	24	@ —	
Chicory	9	@ —	
FISH.			
Pac. Dry Cod, new bundles, ₱ lb	7	@ —	
Salmon in hbls	7 50	@ —	
do ½ bbls	4 50	@ —	
do 2½ lb cans	—	@ —	
do 2 lb cans	—	@ —	
do 1 lb cans	—	@ —	
Pick. Cod, bbls	8 00	@ —	
do ½ bbls	4 50	@ —	
Pug. Sd. Smok'd	—	@ —	
Herr'g, bxs ₱ lb	—	@ 50	
Mack'l, N. 1, ½ bls	—	@11 50	
" Extra	—	@12 00	
" in kits	2 25	@3 00	
" mess	—	@3 50	
" ex. mess	—	@5 00	
NAILS.			
Assorted size	5½	@ 8 —	
OILS.			
Pacific Glue Co.			
Neat F't No. 1	2 50	@ —	
Pure	1 20	@ —	
Cocoa Nut	60	@ —	
Olive Plagniol	5 00	@ —	
do Peerless	4 75	@ —	
Palm	9	@ —	
do Bagicalupi	—	@ —	
Linseed	1 05	@ —	
China nut in cs	75	@ —	
Sperm, crude	1 25	@ —	
do bleached	1 90	@ —	
Coast Whales	55	@ —	
Polar, refined	60	@ —	
Lard	95	@ —	
oal, refined Pet	40	@ 42	
Olephine	40	@ —	
Devoe's Brilt	44	@ 46	
Long Island	42	@ —	
Eureka	42½	@ —	
Downer Kerosene	55	@ —	
Gas Light Oil	37	@ —	
PAINTS.			
Stand. Wh. Lead	—	@ 10	
Whitening	—	@ —	
Chalk	—	@ 2	
Paris White	—	@ 2½	
Ochre	—	@ 2½	
Venetian Red	—	@ 2¾	
Red Lead	—	@ 10	
Litharge	—	@ 10	
RICE.			
China No. 1, ₱ lb	6	@ 7	
do 2 do.	5½	@ —	
Japan	6	@ —	
Patna	6¼	@ 6½	
Hawaiian	8	@ —	
SALT.			
Del. Bay, per ton	8 00	@ —	
Carmen Island	16 00	@ —	
Liverpool fine	26	@ —	
do coar	25 00	@ —	
SOAP.			
Castile, ₱ lb	12	@ —	
Local brands	5½	@ 7	
SPICES.			
Allspice, per lb	17	@ 18	
Cloves	30	@ —	
Cassia	30	@ —	
Nutmeg	1 00	@ —	
Whole Pepper	22	@ —	
Ground Allspice	22½	@ —	
do Cassia	37½	@ 22	
do Cloves	30	@ 45	
do Mustard	25	@ —	
do Ginger	25½	@ 27	
do Pepper	22½	@ —	
do Mace	1 20	@ —	
do Coffee	23	@ —	
SUGAR, ETC.			
Cal. Cube per lb	—	@ 11	
Circle Aranulated	—	@ 11	
do granulated	—	@ 10½	
Golden C	—	@ 9	
do Extra	10	@ 9½	
Hawaiian	20	@ 22½	
Cal. Syrup in bls	32½	@ —	
do in ½ bls	35	@ —	
do in kegs	40	@ —	
TEA.			
Oolong, Canton	19	@ 25	
do Amoy	28	@ 50	
do Formosa	40	@ 80	
Imperial Canton	25	@ 35	
do Pingsuey	45	@ 80	
do Moyune	60	@1 00	
Guapo'der, Cant.	30	@ 42½	
do Pingsuey	50	@ 90	
do Moyune	65	@1 25	
Ying Hy., Canton	28	@ 40	
do Pingsuey	40	@ 70	
do Moyune	65	@ 85	
Japan, ½ chests, bulk	30	@ 75	
Japan, lacquered bxs, 4½ and 5 lbs	45	@ 67	
Japan do. 3 lb bxs	45	@ 90	
do pl'n bx, 4½ lb	35	@ 65	
do ½ lb paper	30	@ 55	
TOBACCO—Jobbing.			
Bright Navye	52½	@ 60	
Dark do	50	@ 55	
Dwarf Twist	60	@ 85	
12 inch do	60	@ 87½	
Light Pressed	65	@ 75	
Hard do	60	@ 70	
Navy, Wrap'r	40	@ 50	
Penn. Wrapper	35	@ 45	
Ohio do	30	@ 40	
Virgi'a Smok'g	60	@ 95	
Fine cut chewing, hot's	70	@9 25	
Fine cut chewing	75	@ 90	
Banner fine cut	70	@ —	
Eureka Cala	$ 50	@ —	

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, Feb. 19 1873.

The price of sole leather continues the same. French stocks have advenced 5 per cent., and importers are firm in their prices.

City Tanned Leather, ₱ lb			26@29
Santa Cruz Leather, ₱ lb			26@29
Country Leather, ₱ lb			25@28
Stockton Leather, ₱ lb			26@29
Jodot, 8 Kil., per doz			$60 00@
Jodot, 11 to 19 Kil., per doz			66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			55 00@ 70 00
Lemoine, 16 to 18 Kil, ₱ doz			75 00@ 77 50
Levin, 12 and 13 Kil., per doz			68 00@ 70 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Females, 12 to 13			60 00@ 64 00
Cornellian Females, 14 to 16 Kil			66 00@ 72 00
Ogerau Calf, ₱ doz			54 00@
Simon, 18 Kil., ₱ doz			60 00@ 62 00
Simon, 20 Kil. ₱ doz			65 00@ 67 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Calf, 7 and 8 Kil			35 00@ 40 00
French Kips, ₱ lb			1 10@ 1 30
California Kip, ₱ doz			55 00 to 70 00
French Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13 00
Sheep Roans for Linings, ₱ doz			5 50@ 10 50
California Rueeett Sheep Linings			1 75@ 5 50
Best Jodot Ca f Boot Legs, ₱ pair			5 25
Good French Calf Boot Legs, ₱ pair			4 50@ 5 00
French Calf Boot Legs, ₱ pair			4 00
Harness Leather, ₱ lb			30@ 37½
Fair Bridle Leather, ₱ doz			48 00@ 72 00
Skirting Leather, ₱ lb			34@ 37½
Welt Leather, ₱ doz			30 00@ 50 00
Buff Leather, ₱ foot			18@ 23
Wax Side Leather, ₱ foot			20@
Eastern Wax Leether			26

San Francisco Retail Market Rates.

WEDNESDAY NOON, Feb. 19, 1873

FRUITS, VEGETABLES, ETC.

Supplies of fruits are rather scant. Apples and pears are going out of the market. Oranges are getting plentiful. Wild mushrooms are 25 cents to 50 cents per lb. There is some new rhuharb in the market at 20 cents to 25 cents per lb. Vegetables of all kinds are plentiful. We notice some new Italian chestnuts in the market. They retail at 50 cents per lb.

Apples, pr lb	5	@ 10		Celery, ₱ doz	75	@ —
Pears, per lb	5	@ 12½		Cucumbers, †	—	@ —
Grapes	6	@ 25		Tomatoes, ₱ lb	25	@ 25
Apricots, lb	—	@ —		Green Peas	20	@ 25
Pine Apples, each	50	@1 00		String Beans	—	@ —
Bananas, ₱ doz	75	@ —		Cress, ₱ doz bun	20	@ —
Canteloupe	—	@ —		Dried Herbs, lb	25	@ 35
Watermelons	—	@ —		Garlic	10	@ —
Cal. Walnuts, lb	20	@ —		Green Corn, doz	—	@ —
Cranberries, ₱ g	—	@1 00		Lettuce, ₱ doz	25	@ 35
Strawberries, lb	—	@ —

DOMESTIC ECONOMY

Economy in the Household.

Mrs O. T., of Missouri, writes sensibly regarding economy in the house and on the farm. Housekeepers should not go in debt to the storekeepers just because they will trust them for a few months. When one cannot pay for table luxuries, it is not wise to use them three times per day. It is not right to give children tea and coffee just because it may look stingy to outside people, when we know that the children are better off without them. Trying to keep up with the fashions is extravagance on the part of the farmer's wife and daughters, unless wealthy. To dress neatly and comfortably is all that is required. Use more fruits and vegetables. The finest flour is not the best; mix the shorts with the flour and the food is more palatable and healthful. She prepares the mixture as follows:

Take about one-fourth fine flour and three-fourths shorts, raise with yeast and bake on a griddle. The cakes are to be eaten with molasses or butter, or both, the same as buckwheat cakes.

Her letter closes as follows: "It is the duty of every housekeeper to see that nothing goes to waste in or about the house that she can make use of, and it is the duty of every farmer to see that nothing goes to waste on the farm that he can make use of. If we will attend to these things we will get along better, and we shall like farm life better. We let too much of labor come to naught."—*Prairie Farmer.*

A new form of prepared meat juice is now in the market, extracted by pressure, and solidified by gentle evaporation. This prepared meat contains the juice of the muscular tissue, together with an amount of albuminous matter. When the extract is submitted to the action of boiling water the albuminous matter coagulates, leaving the meat juice in the form of a clear, light amber soup, from which the coagulated albumen can be strained off if desired.

DOMESTIC RECIPES.

Breakfast Puffs. — Take two eggs well beaten and stir into a pint of milk a little salt, a piece of butter and a pint and a half of flour. Beat the eggs and stir the milk. Add the salt, melt the butter, and stir in. Then pour all into the flour, so as not to have it lumpy. Stir up thoroughly, and grease the cups into which the batter is poured filling them two-thirds full. Eat with sauce.

Apple Float.—To one quart of apples, partially stewed and well mashed, put the whites of three eggs well beaten, and four heaping tablespoonfuls of loaf sugar; beat them together for fifteen minutes, and eat with rich milk and nutmeg.

Bohemian Cream.—Take four ounces of any fruit you choose, which has been stoned, soft and sweetened; pass the fruit through a sieve, and add one and a-half ounces of melted or dissolved isinglass to a half-pint of fruit; mix it well together; then whip a pint of rich cream, and add the fruit and isinglass gradually to it. Then pour it all into a mold, set it on ice or in a cool place and when hardened or set, dip the mold a moment in water, and turn it out ready for the table.

Marble Cake—White.—One cup of butter, three cups of white sugar, four cups of flour, one-half cup of sour milk, a little soda, and the whites of nine eggs. Flavor with lemon. Dark.—One cup of butter, two cups of brown sugar, one cup of molasses, one cup of sour milk, one teaspoonful of soda, five cups of flour, yolks of nine eggs, one whole egg, and spices of all sorts. Put in pans, first a layer of dark, one of white, and so on, finishing with a layer of dark. Bake in a moderate oven.

Arsenic in Carpets.—Hallwachs asserts that not only green but also red carpets contain arsenic, particularly those brilliant dark reds now so much in vogue. Samples of these carpets burned with the blue arsenic flame, and gave off the characteristic garlic odor. Enough color to give a distinct arsenic re-action could be rubbed off with the finger. A solution in hydrochloric acid produces, with copper, the usual greyish precipitate of metallic arsenic.

Chicken Patties.—Chop very fine all the dry, poorest bits left from baked chickens; season carefully with pepper, salt, and a little celery cut in small bits; make a light puff paste, roll a quarter of an inch thick, cut with a neatly shaped paste-cutter; lay a narrow strip of the paste all round, then put some of the mince on the paste; cut another piece of the same size and lay over. Bake fifteen minutes. This makes a neat dish and is good.

Astor House Rolls.—Into two quarts of wheat flour put a piece of butter the size of an egg, a little salt, a tablespoonful of white sugar, a pint of milk previously boiled and cold, and a half teacupful of yeast. When the sponge is light, mould for fifteen minutes. Let it rise again, and cut into round cakes; when light, flatten each cake with a rolling-pin; put a bit of butter on top, and fold each over on itself. Put in pans to rise, and, when light, bake in a quick oven. If the edges of the rolls are dipped in melted butter, they will not stick together when baked.

Honey Gingerbread.—One cup of butter, two cups honey, one of sour milk, one teaspoonful soda, flour as stiff as can be stirred.

Who took the Profits on our Wheat Crop.

Eds. Rural Press:—It has been repeatedly stated during the past season by those gentlemen who do up the market reports for the various newspapers, particularly by the one who reports for the Sacramento *Union*, that the last year has been a very prosperous one, that the profits of grain raising have been large, and that farmers generally were able to make up for the losses of the previous year of drouth.

I do not propose to dispute the fact that there was a vast area sown in wheat, or that the yield was good, giving a grand surplus for export which in the aggregate is immense, bringing a sum total of dollars which might deceive men of more practical knowledge than the majority of newspaper reporters. But the statement is erroneous, creating a false impression both at home and abroad, which perhaps, is of little consequence, yet knowing that it is a mistake, and believing that I know why it has not been a prosperous year for the farmer, (and I presume most everybody else knows too,) I would like through your paper not only to show that it has not been a year of profits to the farmer, but to enquire who has realized the profits, certainly they have been large enough if the producers could have realized them, to have placed them in comfortable circumstances and make good some of their losses for the preceding year. England has stood ready to take all our surplus at a good price, thirteen shillings being not far from the average price of California wheat in Liverpool during the last six months with no prospect of a decline, which as I figure it, is sixty-three dollars per ton, or within a very small fraction of it. But let us look at the profits, to the producer, of the last harvest.

Take the farmer with 160 acres of land, he cannot one year with another, harvest more than 100 acres of grain annually, (he must use some land for pasture, some for hay, etc.,) it will be conceded that twenty-five bushels per acre (1,500) is a good yield even for last year, the cost of seed, feed and labor of putting the crop in was not less than five dollars per acre, (it will cost that on an average any year) the usual price for harvesting here is five dollars, sacks to contain 1,500 pounds of wheat at last summer's prices was two dollars; the prices paid for wheat at Dixon during the months of July, August, September and October, during which time the farmer was compelled to close up his year's business, pay his bills, etc., to do which ninety-nine in every hundred must either sell a good portion of their wheat or borrow money, ranged from $1.37½ to $1.52½ per cental, say an average of $1.45, though I believe there was more wheat sold at $1.42½ than any other figure. The account would stand about as follows:

Cost of seeding 100 acres	$500 00
Cost of harvesting 100 acres	500 00
Cost of sacks	200 00
Total Cost	$1,200 00

The product at 1,500 pounds (25 bushels) per acre, 75 tons; 75 tons, $29 ($1.45) per ton, $2,175; deduct cost, $1,200, thus you have the pitiful sum of $975 as the result of the year's operations out of which the family must be supported, taxes and repairs paid, and interest on capital. Will some kind market reporter tell us where the profit comes in? Now let us see where the profits went to, for certainly there were large profits.

It will be seen by the above figures, that the cost of production is twelve dollars for 1,500 pounds, or sixteen dollars per ton of two thousand pounds. Add cost of freight and commission, from this place to San Francisco along side ship, three dollars, and you have nineteen dollars as the total cost of the wheat along side the vessel.

Let us present it in this way, value of wheat in Liverpool per ton $63, cost of the same in San Francisco $19, leaving a difference of $44. Now the question is, who gets the forty-four dollars? The farmer gets the difference between the cost nineteen dollars, and the price paid in San Francisco, thirty-two dollars, which is thirteen dollars; suppose the ship gets four pounds sterling freight, a pound I believe is $4 84, four pounds would be $19.36, that is, $19.36 freight per ton of 2,240 pounds, equivalent to $17.28½ per ton of 2,000 lbs.; let us allow for loading, interest and insurance, say three dollars and seventy-eight cents, the account stands as follows:

Difference between San Francisco and Liverpool prices $44; of this, the farmer receives $13, the vessel $17.28, loading interest and insurance $3.78; balance $10. Thus you see the wheat ring has pocketed the lion's share of the profits of the last crop leaving many a farmer barely able to plant another crop. They did not kill the goose that lays the golden eggs but they have stolen all the eggs. Is there no means by which the farmers can extricate themselves from the grasp of those heartless speculators and monopolists? Five more years just like the last will bankrupt or freeze out two-fifths of the present grain raisers.

The amount of rainfall in this locality for the present season, has been nine inches as I have measured it, no surplus yet, and unless we get some pretty good spring rains the crop will not be extra, yet the prospect is favorable. The amount of grain sown this year will fall short of last year, in this locality. Farmer.

Dixon, Feb. 4th, 1873.

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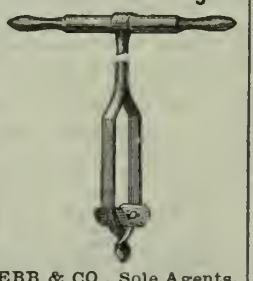
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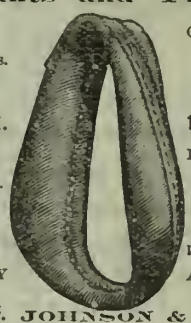
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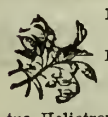
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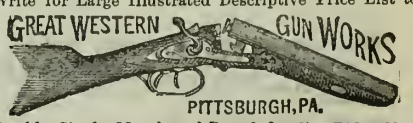
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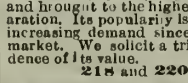
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T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Meins', Youths' and Boys' Fine Custom made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. 519 Sansome street, S. F. All orders promptly attended to.

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 724 Market st., S. F.

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Jacob Schreiber, Dealer in Live Geese Feathers Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

A. Greenebaum & Co. (Successors to Herman Heuck), Manufacturers, Importers and Dealers in Havana and Domestic Cigars, Tobaccos, Snuffs, Pipes, Matches, etc. 233 Kearny st. cor. Give them a call.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns out and Teacher of her system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 34 Third St. JOHN D. GODEUS, Proprietor.

Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

R. D. Mowry, Poultry and Game Dealer, Wholesale and Retail Dealer and Commission Merchant. Stalls 103 & 104 California Market. Orders solicited and promptly delivered free in the city.

Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. List and Rag Carpets for sale. Send for Circular. Address, ALEX. MACKEY.

The White Stall.—E. O. Andrews & Co., Retail Dealers in Butter, Eggs, Cheese and General Assortment of Fancy Groceries, No. 23 Occidental Market, San Francisco. feb22-3m

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American and Foreign Patent Agents, Publishers of the Mining and Scientific Press, S. F.

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FROM
THE FINEST BRED FOWLS IN AMERICA.
Twelve First Premiums
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LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

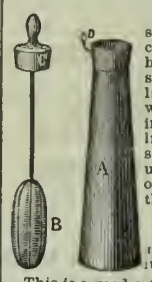
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Apply to THOS. E. FINLEY, Manager,
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An Invention of Practical Utility---A Convenience demanded by Every Family in the Land.

It will kindle wood or coal, coarse or fine, in an incredibly short space of time. One Kindler will last a life-time.



In the accompanying cut *A* represents a can for the purpose of holding coal oil. It is usually kept about one-half full. *B* is a fire-proof porous substance, which when not in use is immersed in the oil can. *C* is a cork which prevents the oil from evaporating or being spilled. The ball *B* being saturated with oil it is only necessary to apply the match and place it under the wood or coal. When the oil is all burned out it is returned to the can for future use.

One kindler will be sent by mail to any address on receipt of one dollar in currency.

This is a good article for agents.

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The Twenty-Second Session commenced January 20th, 1873.

For circulars address

MRS. A. M. GATES, or
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fb22-3m

ÆTNA MOWER AND REAPER
The Latest and Best in the Country.
HAS A DOUBLE MOTION.

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

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Sole Agents Pacific States, San Francisco.
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A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character

From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,
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PURE BRED IMPORTED FOWLS.
"Heggs for Atching."



White Bald Face Black Spanish, $2 per dozen; Light Brahma, $3 per dozen; Dark Brahma, $4 per dozen; Buff Cochin, $5 per dozen; Silver Spangled Hamburg, $6 per dozen; carefully packed and shipped free of extra charge. All kinds of fowls bought, sold or exchanged,
7v5-3m T. W. HAYNES, 418 Post street, S. F.

BEST SHADE IN THE WORLD!
The Rustic Window Shade.

This New and Elegant article of manufacture
Is Fast Superceding all other Styles of Window Shades in Use
Wherever it has been introduced and its merits tested.
It is made of Wood, is Light, Strong and Extremely Durable.
It Lowers from the Top or Raises from the Bottom,
And forms a complete and the only substitute for Inside Blinds.

When soiled it can be cleaned with water without the slightest injury.

Its fixtures are simple, work to perfection, and never get out of order.

Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

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No. 413 Mission Street, (Mechanics' Mill,) by
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☞ For sale by all Furniture and Carpet Dealers.
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SPRING TRADE—1873.

China, Glass and Crockery Ware
COAL OIL LAMPS.
Fine Silver-Plated Ware,
Choice Table Cutlery,
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O. LAWTON & CO.,
(Successors to Haynes & Lawton,)
Having Reduced Their Prices,
ARE PREPARED TO
OFFER GOODS IN THEIR LINE
Cheaper than any other House on the Pacific Coast.
O. LAWTON & CO.,
Market Street.....Under Grand Hotel,
SAN FRANCISCO.
4v4-1am3m

A NEW SQUASH.

Eighteen years ago I introduced the Hubbard Squash to the public. After testing scores of new kinds from every section of the United States, I have at last found one (see reading matter of this paper) well worthy to be added to our list of standard varieties. It is a very late keeper, and remarkably free from admixture with any other sort. In size it averages with the Hubbard, but has a more flinty shell of a blue color; the flesh is of a lighter hue, while in its combination of sweetness, dryness, fineness of grain and delicious, chestnut-like flavor, it stands alone—unequalled. I have named it the Marblehead Squash. In my Catalogue (free to all) will be found letters of recommendation from Hon. Marshall P. Wilder and other gentlemen. Packages, with seed sufficient for six hills, with full directions for cultivation, 25 cents each; five for $1. Dealers supplied at the usual discount.

JAMES J. H. GREGORY,
feb22-2t Marblehead, Mass.

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The TEACHER—CANNOT USE A MORE THOROUGH OR EFFECTIVE METHOD.

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It Costs No More to Keep Good Fowls than Poor Ones!



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Corner Sixteenth and Castro Streets, Oakland, Cal.
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Eggs for Hatching from the largest and best bred fowls in the world, carefully packed in Patent Boxes, and guaranteed to carry safely any distance.

The varieties comprise Dark and Light Brahmas, Buff, Black, White and Partridge Cochins, White Leghorns, Houdans, Silver and Golden Spangled Hamburgs, Gold and Silver Spangled Polish, Black Spanish, Crevecœurs, Rouen and Aylesbury Ducks, Bronze Turkeys, and Sebright and Game Bantams.

Send stamp for Illustrated Circular to GEO B. BAYLEY, Importer and Breeder of Choice Poultry, P. O. Box 659, San Francisco; also agents for the POULTRY WORLD, a monthly illustrated journal, devoted entirely to Poultry; tells how to keep Fowls for PROFIT; a complete repository of information on the subject. Subscription only $1.25 a year. Agents wanted in every town in the state. Address P. O. Box 659, San Francisco.

☞ Please state in what paper you saw this advertisement. fb22

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ALSO,
Grass and Clover Seeds
ALFALFA.
Trees, Plants, Roots, Etc.,
For Sale at Wholesale or Retail by
GEO. F. SILVESTER,
No. 317 Washington Street,

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GUANO.
100 Barrels Guano for Sale,
In quantities to suit purchasers.
6v2-1y-16p GEO. F. SILVESTER.

Fruit, Shade and Ornamental
EVERGREEN TREES AND
Plants for Sale,

At the old stand, corner Oregon and Battery streets, Directly opposite Post Office, SAN FRANCISCO.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants

Ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

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Promptly attended to and packed with care.
Send for Price Catalogue.
AGENT FOR B. S. FOX'S NURSERIES, SAN JOSE.

Address, THOMAS MEHERIN,
516 Battery Street,
SAN FRANCISCO.
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THE LARGEST STOCK IN THE STATE AT
H. ALLEN'S NURSERY,
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Wanted at 338 Montgomery Street,
NOS. 1 AND 2 OF THE
American Artisan for 1873.

ARCHITECT J. J. NEWSOM No. 430 MONTGOMERY ST. S.F.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MARCH 1, 1873. [Number 9.

The Grizzly Bear (Ursus horibilis).

Not agriculturally do we introduce our illustration of the grizzly bear; but it is, that by offering it, we are enabled to show, to our young readers particularly, how marked the contrasts that may pertain to the conditions of a new country, in a very brief period of years. Only twenty years ago, California was known almost entirely as a mining country, with a population of adventurous spirits scattered throughout the length and breadth of the lower Sierras, and oftentimes disputing the right of domain with the native lord of the forests, the Grizzly.

But those early scenes, with all their excitements, dangers and "hairbreadth 'scapes," are now seldom heard of but in the records and history of the past, for now the more peaceful pursuits of agriculture are dominant. Our cut presents us with one of those scenes incident to that in which a trio of miners had for a day turned hunters, and had found game "worthy of their steel," or rather their leaden balls, and whilst one of the party finds himself unexpectedly taking an inside view of a Grizzly's face, under circumstances of startling interest, his comrades, at an exceedingly short range, are about to pour in a broadside volley, that if anything saves the half prostrate, hat and gun-forsaken miner and hunter, from a bad chawing-up, that volley must. And thus we leave him—as is sometimes said—"in the hands of fate," but to our eye looking more like the paws of a grizzly. The natural history of the grizzly iu very few words is this: It inhabits the Rocky Mountains and the mountains to the west of them, to the Pacific ocean. Is of all the bear tribe the most savage and ferocious, aud the most to be dreaded for size and strength.



HUNTERS FIND A GRIZZLY.

Moles.—Will some one inform us of the surost and best mode of catching the common ground mole? Residents of Oakland are troubled to a considerable extent by their presence.

We think, however, that the old maxim of "out of the frying-pan into the firo," may apply in some instances. Moles are most inveterate destroyers of insects and worms, which they devour in great quantities; and on account of their voracious appetites they are almost constantly employed in searching for food, and where insects abound in the soil, the mole is sure to be found, and there their labors are of the greatest value. Unlike the gopher, they never devour the roots of plants; but their passage beneath and among the roots—in search of insects—is sometimes injurious to them.

Woolly Aphis and Scale Insect.

These insects, injurious to all trees subject to their attacks, are found more or less in nearly all the orchards of the State, and have been made the subject of inquiry and discussion in farmers' clubs and among horticulturists everywhere. To divest trees of these pests various remedies have been proposed, but as all applications to be effectual must be of easy application to the small limbs as well as large, it is difficult to accomplish a complete extermination.

A great deal can be done, however, by persistent application of remedies. Strong lye of wood ashes, and strong lime-water are recommended as a wash to be applied to the limbs infected; but the strongest lye or lime-water will not always kill them, and particularly the woolly aphis; but kerosene will, and without injury to the trees as might be supposed. We give as authority for this, Mr. E. W. Garvitt, who assures us that he is at liberty to refer to Mr. E. B. Mastick of Alameda who has made frequent application of kerosene with excellent results. The limbs infected being completely sponged with the kerosene over their whole surface.

Instead of filling the pores of the bark or forming an impervious coating to the injury of the tree, it almost immediately evaporates, producing no injury whatevor.

Rhubarb.—This excellent material for pies, is now on the markets, of good size and fine quality.

Whalebone Asparagus.

We have large quantities of blanched asparagus on our markets, tough and tasteless as whalebone. In all the markets of the East, people seem to know what good asparagus is, and they know that none but the green portion of the cutting is fit to eat; and those here, who have ever tried asparagus grown above and below ground, cooked at the same time and in the same manner, know the green to be infinitely more delicate, tender and rich, iu everything that constitutes good asparagus than any which has been blanched or whitened.

Celery needs to be blanched, simply because it improves it. Asparagus should not be blanched, simply because it injures it; and it is strange that people will not make a simple trial of the two conditions, by ordering a few pounds grown above ground, with which to make the test. A large expense is incurred in blanching asparagus which the gardener would gladly dispense with, if he could; and he could, if it was simply fashionable to eat good, rich, tender and juicy asparagus, instead of white, stringy and tasteless stuff, because it is white. Four-fifths of the entire cutting should be grown above ground and of course green, then four-fifths will be found tender and delicious.

Turkish Muskmelon.—Through the New York seed warehouse of R. J. Trumbull, S. F, we were this week in receipt of a muskmelon of the above named variety. We have tested its merits, and pronounce it a melon a good deal better than common, and considering the season of the year, excellent.

Our Foothill Lands.

Every few weeks we hear of something to strengthen our belief that the foothill lands along the whole length of the Sierra Nevada, adjacent to the placer mining districts of the early days, and the quartz and deep-hill diggings of the present, will eventually become the homes of thousand upon thousands of those who can be content with health, prosperity and moderate gains, in distinction from those who only measure their happiness by the number of broad acres they may possess in the broader valleys or great, lower, arid plains.

We have at this moment another letter in hand, this time from Mr. M. F. Gregory, of Jenny Lind, Calaveras county, who speaks favorably of lands in that section, alluviums formed by the Calaveras river, as being finely adapted to the growth of corn, barley, wheat, fruits and vegetables, aud gives the yield at 25 centals of wheat and 30 centals of barley per acre.

Mr. G. sends to us for cotton seed, being quite certain that cotton will succeed equally well with other products. As lands adapted to vineyard culture the fact has been established, that there are none in the State that can excel those of the foothills, and immigrants would do well to give this vast range of almost unappropriated foothill lands a caroful examination before paying double or quadruple prices for the low valley lands, which are no better, for all the purposes of vineyard and general fruit culture.

Just now on the first of March, go into the markets of San Francisco and on inquiry it will be found that the thousands of boxes of choice, well-kept apples of all the winter varieties known to any country, are almost to a box, Oregon apples; and they are Oregon apples because California does not yet supply her own market with this fruit. Now there are no better lands or climate in Oregon for winter apple production, than are the foothill lands and climates of this State. We speak from a positive knowledge of the fact, and yet there are ten thousand acres of these lands awaiting entry at $1.25 per acre.

Lectures for Working Men.—The Wednesday evening lectures of Dr. E. S. Carr in the Chemical Lecture room of the State University, Oakland, are highly appreciated by full and attentive audiences. We have never before noted so valuable a course of free lectures delivered by one lecturer. His practical and interesting lessons will prove of much benefit, and be long remembered by his intelligence-seeking auditors.

CORRESPONDENCE.

Sonoma and Mendocino.

These counties have been the scene of a very hurried visit from our correspondent. Everywhere he hears the same complaint, "hard times and no money." In too many places he finds a strange carelessness regarding any means of agricultural improvement. Yet, men are very ready to assert that every brother about them "has a mote in his eye." It is easier to say "there are not two good farmers in this county" than to be a good farmer yourself. It is to be expected that the attention and labors of the press will be most strongly directed to those sections where it is best supported and where the greatest disposition for improvement exists.

From Healdsburg to Cloverdale.

This is a distance of about twenty miles through the narrow valley of the Russian River, surrounded on both sides by hills, in some places clothed with grass, and in others with a dense growth of brush. This county is thoroughly stocked with cattle and sheep. The valleys raise good corn and wheat, still it is a general practice among farmers to burn their straw. When the range was only partly fed down, the cattle used to find enough grass on the hills to bring them out in good condition in the spring. Now when there is but little dry enough to support them through the summer they adhere to the old practice. If a hard storm had come just before the grass started this spring, farmers tell us that half the cattle in the northern part of Sonoma would have perished; we see them upon the hillsides mere walking skeletons; a cattle buyer was gathering them up to drive to mountain pastures near the coast. His scale of prices was for yearlings $5; for two year olds $10; and for cows $20. The butcher told us that stall-fed beef cattle were worth $4 per cwt. on foot; we don't know where he gets such, for we did not see any.

From what the farmers tell us of the corn crops that are raised in that valley and what we have known of the condition of the cattle in the fall and the results of feeding elsewhere, we obtain by a few figures this result. The product of twenty-five acres of corn properly fed, in connection with the straw that is now burned would support an average herd of a hundred cows, two year olds and yearlings, for a hundred days and bring them out in good condition for beef; they would then be worth three times as much as those left on a poor range.

We have made in this calculation large allowances for an unthrifty stock of cattle, but have figured on ground or cooked feed and careful feeding. We suppose the experiment will be too much trouble for any one to try.

Cloverdale.

This is the present terminus of the railroad from Donahue. It is a thriving place of 400 to 500 people, and enjoys the prospect of a very large trade, extending away north over hills and through rich valleys for a hundred miles and more; almost to Eureka. There are stage lines running to Ukiah and to Lakeport. The town has a beautiful location and many evidences of taste are manifest in its surroundings. Its name was derived from the luxuriant growth of native clover which made it seem almost a paradise to the first settlers.

Railroad Prospects.

It is amusing to listen to the plans of different towns regarding the continuance of the railroad. Cloverdale people think it has gone quite far enough, and picture the proposed route as leading over the roughest hills by grades and curves and tunnels, that are fearful to see. Then it would lead through a hilly country with a sparse population devoted to stock growing, and in no way to be benefitted by a railroad. Reverse the picture and view it from the Ukiah standpoint.

Here is the Russian River valley with its gentle grades and fertile fields, just the place for a road; and away to the north stretch those magnificent forests of redwood. A large share of it already belongs to the railroad company, and they are only waiting to get control of enough of it to put the line through and have the most extensive business in through freight of any road on the coast.

The case has certainly two good sides as viewed from our standpoint, but Mr. Donahue will relieve us of judging the question as the road has recently been transferred to him. It seems to be the old story of people anxious for a railroad until it is built, and then making it the scapegoat of every misfortune forever afterwards.

Hop Growing

Has been a very profitable business about Ukiah. They have soil very well adapted to hops, poles near at hand to be had for cutting, labor of Indians at fifty cents per day, and no trouble from insects or frosts. Mr. Cowsert tells us that he had nearly 6,000 pounds of hops from two and a half acres this year. He sold at fifty cents per pound. Mr. Long and Messrs. Burke are noted hop growers.

Taking land, labor, poles and freedom from insects into account, we think these valleys offer the best inducement to hop-growers of any country we have visited. Land is worth about $40 to $50 per acre, and freight to San Francisco averages about $30 per ton.

Ukiah.

Here is the county seat of Mendocino, rejoicing in a fine new court house. Things seem quite lively here, and the hotels are crowded. There is a daily stage to Cloverdale and there is a petition circulating for a tri-weekly line to Round Valley and intermediate points.

Potter Valley

Is situated twenty miles from Ukiah, and has 8,000 to 10,000 acres of very rich bottom land. Its 1 000 inhabitants support two rival villages, three school houses and one church. They have to send to Ukiah for a physician, and pay twenty-five dollars per visit. A physician would find this valley a desirable location and would find a good practice awaiting him. A merchant tells us there is no place where people pay their debts more promptly than in Potter Valley. Sixty miles north of here is

Round Valley.

This contains the well known Indian reservation. From the accounts we receive, we should judge that it contained about 30,000 acres of very fine land. The management of the reservation is very badly spoken of by the settlers. They accuse managers of growing suddenly rich, and leaving the Indians under their care to starve to death. If they are innocent they ought to demand an investigation and save their reputation. The climate throughout this section is very desirable, and it looks like a very paradise for goat fanciers. More of Lake county in our next. C.

Placer County.

EDITORS PRESS:—If you have space in your valuable RURAL PRESS for a few periods, these are at your disposal.

There is no other county in the State, that has such a variety of soil and climate as Placer. It extends from the great Sacramento valley on the west, to beyond the crest of the Sierras on the east. Throughout its whole length it is traversed by the Central Pacific railroad, which affords a quick and ready means of transportation to a market, for the surplus of its varied products in agriculture. In less than a day's ride by rail, the traveler from the east, on entering the State, drops down from the region of eternal snow under the shadow of Mount Lincoln, through every class of vegetation, to the Boiseville Junction, where there is no winter but a premature spring, and no autumn but an extended summer.

The melting snows of the Summit start the waters of the South Yuba and Bear rivers, which are taken up into artificial canals or ditches, and then brought along down the mountains on the divides between the Yuba and American. The Bear River Ditch has its main channel, and also lateral branches which furnish water to nearly every mining camp in the county.

The placer or surface mining having quite come to an end by an act of legislation, the water of the ditch is used in extensive hydraulic diggings, and also to propel quartz machinery. But, in addition to serving the last two classes of mines, the lateral branches of the ditch are now used to furnish water for irrigating gardens, berry plantations, fruit orchards, and grain and clover fields. Indeed, it is everywhere apparent that agriculture and horticulture have taken the place of surface mining. Only the stone chimney, lone and desolate, marks the place where twenty years ago was the cabin of the "honest miner." Now, the sound of the pick and shovel, and of the gurgling water through the sluice, is seldom or never heard; but the farmer has an inheritance of weighty heaps of tailings in each ravine and gulch.

Nearly two miles below Auburn a mineral belt crosses the American and follows a serpentine course in a general northwesterly direction towards Bear river. This mineral belt assumes the form of a ridge in its line of direction; which is broken through in places by ravines from the north and east. At different localities it is called Bald Hill; but, with more propriety, it should be called Bald Hill Ridge. The geologist or scientific miner can easily trace the line of this mineral belt, by the outcropping trap-rock, together with volcanic scoria and gold-bearing quartz. Wherever thorough prospecting has been made along its course, the miner in quartz has been invariably rewarded. There are several quartz mills at work on rock that has been quarried from lands which have either trap and slate walls, or trap and granite. Within a month two valuable leads have been unearthed, making their possessors rich after years of prospecting, and at the present time there are probably a hundred men traveling up and down the ridge with pick and hammer, pecking off bits of quartz wherever they can find an out-cropping that is untouched, or an old prospect shaft of a half dozen or more feet in depth.

But, in addition to quartz mining, this trap-rock belt has great significance in an agricultural point of view. It is the dividing line between the granite bed-rock on the southwest and the slate bed rock on the northeast; and, consequently, it separates two classes of soils which are entirely unlike and distinct in their analysis and composition. The soil on the granite bed-rock is a dark sandy loam which has been formed from disintegrated particles of granite united with decomposed vegetable matter. Its depth is from one to ten feet, varying from hill to valley. It is a quick and warm soil, especially adapted to the cultivation of the strawberry plant, the raspberry, the blackberry, and all the products of garden culture.

From two to ten miles below Auburn, along the line of the C. P. Railroad, there are many well-cultivated gardens, vineyards and orchards, which supply the mining camps and mountain towns with fresh vegetables during every month of the year; and, at the proper season they send to the State of Nevada the most delicious mountain fruits, which always sell at an advanced price over that of its kind, which is cultivated in the large valleys of the State. These plantations in the foothills, in the vicinity of Ophir, Newcastle, Penryn and Pino, are supplied with water for irrigation from the lateral branches of the Bear River Ditch, at a certain price per inch of miner's measure. Yours, T. S. MYRICK.

Auburn, Feb. 15th, 1873.

The Grain Sack Problem.

EDS. PRESS:—I propose to offer for the consideration of the farmers of this State, my ideas concerning a solution of the grain sack problem, which now stands about as follows:

Insurance men have decided that the shipment of grain in bulk, in vessels not specially built or prepared for the purpose, so increases the danger of loss of both vessel and cargo, that they either decline absolutely to insure grain so shipped or vessels so loaded, or demand premium rates which are in effect prohibitory. Consequently one of two things becomes necessary, viz:

1. That vessels shall be fitted up with suitable sheating and bins or partitions to prevent shifting of the cargo and choking of the pumps in case of accident or rough weather.

2. The sacking of the grain. No vessels comes here prepared expressly for the shipment of grain in bulk and the preparation of such bins or partitions being more expensive than sacking the grain, and it being impossible to saddle their cost quietly upon the farmers the latter course is preferred by shippers of grain. If safe and suitable partitions, sheatings and bins were here built in ships that come to load with grain without them, their cost would probably be added to the freight charged the exporters, and by them to their customers in England, but would have to be paid directly by the shippers. By adopting the sacking system, however, the lowest possible freights are secured, both on cars and boats and shipboard, and the original cost of the sacks is now shifted to the shoulders of the farmers without any inconvenience to the shippers. This arrangement now compels the farmers to raise just so much more cash at this time when their other expenses are heaviest and when it is hardest to do so. The farmers are in the country, away from the money center, where the cost of sacks is high and rates of interest heaviest; and as a class far less able to raise the cash to pay for the sacks than the exporters of grain.

It is therefore desirable if possible to shift this (as I believe unnecessary) burden from the shoulders of the farmers who are least able to bear it, to those of the exporters of grain who can far more conveniently do so, or, as is far more likely, would soon find the means of avoiding it altogether by abolishing the sacking of grain.

The question is, can this object so desirable for the farmers be accomplished? I hold that it readily can and I will proceed to tell how:

The farmers of this State are just now commencing to organize for the purpose of protecting themselves against the actions of the middlemen and transportation companies, and this enormous expense for sacks, now thrown upon them, is one of the main grievances they complain of. If the farmers of every county in the State will now, before the next crop is reaped, form an effective organization, and pledge themselves not to sell a pound of grain in sacks, but hold it until buyers will take it from them delivered at the nearest railroad depot or steamboat landing in bulk, the whole question will be satisfactorily solved in thirty days from the time this determination is arrived at and the power and the disposition manifested to maintain it. Foreign nations must have our grain; ships must have cargoes and our grain dealers must buy it. If they don't foreign buyers will come here to take their places and they know it. Most farmers would rather take a slightly reduced price for their grain in bulk, than be compelled at harvest time to raise the money to pay for the sacks now necessary to enable them to market it.

The immediate result would therefore be, that grain dealers would be as ready to buy the grain in bulk, as they now are to purchase it in sacks. Every farmer here, as in the Eastern States, would become the owner of good, strong, heavy sacks, enough to load perhaps half a dozen teams, when filled. These he would use in hauling his grain from his farm to the warehouse at which he had agreed to deliver it to the buyer. When his grain was delivered he would take his bags home again, and so continue to use them until his whole crop was thus delivered, when they would be carefully laid away and serve the same purpose annually perhaps for half a dozen years or until worn out.

The grain buyer would either sack the grain at once at their own expense or build their store houses to receive and store the grain in bulk. They would then eventually compel the railroad companies to provide suitable wooden cars, or thick sheet iron cars for the transportation of grain in bulk similar to those in which coal is transported in the Eastern States, and from there it would be emptied into their store houses until ready for shipment. They would then fit up the grain-carrying vessels with the necessary sheathing and partitioned bins to enable them to carry in bulk and obtain insurance at the lowest rates. Perhaps these two results could not be accomplished by the grain buyers in a single season, but the grain buying and freighting business is a permanent one, and that it will in a few years be conducted on this plan is unquestionable, and the expense necessary to make the change will pay. Meanwhile, as long as sacks are considered a necessity, the grain buyers would provide them at their own expense at the interior warehouses where the grain was delivered by the farmers, until the railroads provided cars for the transportation in bulk, and after that, if still necessary, at their warehouses from which it was taken on board the ships.

So far as the farmers are concerned, I claim that the above plan offers a complete solution of the whole grain sack question. They need not any longer have to raise the money to pay for their sacks before they could sell or store their grain. This would be an immense pecuniary relief to them, and competition among buyers of grain would soon, at least, prevent the price they received for it being any less than what they now receive when the cost of sacks is deducted. To enable the poorer farmers to hold their grain as readily as the richer ones, the latter or the interior banks would at first have to be ready to assist them either personally or through their organization with the money absolutely necessary for the purpose secured on their crops.

Doubtless the grain buyers and exporters, the warehouseman and the railroad companies, would all at first attempt to resist such a movement on the part of the farmers. But the farmers acting together would have the upper hand, since neither of these classes could stop their business, and the grain will not lack buyers in any shape in which the farmers determine to sell it, if the price they ask is reasonable.

I believe the result of such concerted action on the part of the farmers would shortly lead to the disuse of sacks altogether, for the shippers and vessel men would find a way to dispense with them, as soon as it was to their interest to do so. Vessels would be constructed expressly to carry grain in bulk, and yet not interfere with the carriage of general cargo (or passengers and their baggage as has been suggested). Large quantities of lumber are now profitably shipped to England and Europe, and sheathing, partitions and bins would be built of lumber in such a way that the planks would, after the grain was discharged, be saleable for enough to pay for its cost and freight. The risk would thus be obviated and insurance kept at a figure quite as low as at present.

The business of importing and manufacturing sacks would probably fall off materially for a while, but as it is now transacted wholly at the expense of the farmers without any corresponding benefit to them, they would not object to this, and would listen to the complaints of the importers without being disturbed thereat.

At all events, the foregoing ideas are submitted to the Farmers' Clubs and Granges throughout the State for their consideration, as pointing out a practical way in which they can make their organized and united power felt for their own benefit and their relief from one of the heaviest burdens they are now called upon to bear. As to heavy freight and storage, charges, etc., these will be remedied just as soon as competition is secured, in consequence of the natural expansion of the various branches of business to which the grain growing industry gives rise. C. S. CAPP.

Curing, Sorting and Handling Tobacco.

EDITORS PRESS:—For some time past I have read, with much interest, in your paper, the various discussions and experiences upon the culture of tobacco. I am, you may say, a "new-comer" to these parts, having arrived in California last June only, but, nevertheless, have seen enough, both of the soil and climate, to be convinced that tobacco *can* be successfully cultivated, by any one who has had any experience in growing the "weed." For many years past I have been very successful in raising tobacco in Maryland, and my experience teaches me that there is much more science in the handling and conditioning of tobacco *after* being *cured* than there is in the curing of it; in other words, a crop of tobacco badly cured but nicely sorted, handled and conditioned, command in market a better price than a nicely-*cured* crop poorly sorted, handled and conditioned.

I find here the best of soil for such crop, and feel sure that the climate is sufficient without the aid of any patented method for any one of any experience to put a good, saleable article into the market of San Francisco. Our beds are made, and we intend to try a small crop this present season. Please insert this in your paper, as I am afraid some who are desirous of trying the cultivation of this crop may be scared off by the "patented methods of *curing* it."

D. M. K.

St. Helena, Napa Valley, Feb. 17th.

The Swine Yard.

Spaying Sows.

Eds. Press:—I have never seen, in any book or publication, any instructions with regard to spaying sows. It is a matter of much importance to husbandmen; a great many fine animals are lost by spaying for the want of a proper knowledge of the right, and best manner of performing the operation. It is a wonder to me that nothing should be printed in the publications of the times, and that so little, or no notice, should be taken of so important a matter.

It appears to me that you could do your farming subscribers no greater favor, than to procure and publish the best instructions to be had with regard to spaying sows, heifers and fillies. J. Mco.

Scott Valley, Jan. 30th, 1873.

In reply to your note we give the following, extracted from the *Rural New Yorker:* "I have seen it often and invariably successfully done. Insert two pins in a tree, abont six feet from the ground, and ten or twelve inches apart. Take a small rope, about three feet in length, with a slip-knot on each end, and fasten to each hind leg of the pig, and raise her (back to the tree), and put the rope over both pins. Then, with a sharp knife, make an incision about three inches long in the back part of the belly. Insert your fingers and find the ovaries two small lumps, very much like a blackberry in form, though not in color, attached to the vagina. Carefully cut these off, and then with a needle (a crooked one is best) and strong, coarse thread, sew up the opening. Carefully take the animal down, and let her go; but don't shut her away from water or mud. It is better to not feed her for twelve hours before spaying."

Feeding Hogs.

The quality of pork is greatly owing to the feed. The dairy makes poor pork—flabby and soft—pork that will fry away much, and what is left will be worth little. This is the case whether milk or whey is fed. But it is remunerative to make this pork; it is therefore made. If you want pork for your own use, solid, bearing the heat and a sweet morsel when cooked, you must feed the grains. Old corn makes perhaps as good pork as anything. Peas are excellent and pay well. Cold water to cool the heated body of the animal in hot weather, is necessary, that is, access to water. Plenty of litter and absorbants are wanted, when kept in pens any dry material will do, partially dry muck, or the cooling saw-dust, or dust from the road. When will farmers of California avail themselves of this, and thus increase largely the manure piles, and improve the quality of their pork?

In reply to the statement that "the dairy makes poor pork," another writer, with whom we entirely agree, says: "The above statement is too strong in reference to the quality of pork from the dairy. The refuse of a butter dairy, skimmed milk, etc., makes very sweet pork; but, being in a liquid and soluble state this food is easily digested and absorbed by the system, and the hogs grow so fast upon full feed of it that the pork is soft. But this defect is remedied by feeding a few weeks previous to killing upon corn or other solid food. The dairy is a great resource for pork making, and needs only to be properly managed to produce the best quality."

The Most Perfect Hog.—At the National Swine Breeders' Convention held at Indianapolis, Ind., last fall, the following standard as to what constitutes the most perfect hog was adopted: It must have a small short head; heavy jowl; short, thick neck; ear small, thin and tolerably erect, but not objectionable if slightly drooping forward; bottom straight from neck to flank and well down to the knees in brisket; of good length from head to tail; on the back broad; ribs rather barrel shaped, and must be slightly curved in the back from the shoulders to the setting on of the tail; the tail small; the ham long from the hock to letting off at the loin, and broad and full shoulders, not too large, but enough to give symmetry to the animal; hair smooth and evenly set on; skin soft and elastic to the touch; legs short and small, and well set under and space between, broad; good depth between bottom and top; good, quiet disposition; weight, not to exceed from three to four hundred pounds gross at twelve to eighteen months. Such a hog should measure as many feet from the top of the head to the root of the tail as he does around the body, and will measure as many inches around the leg, below the knees, as he does in feet around the body, and the depth of the body will be four-fifths of the hight.

Overgrown Hogs.—There is not one single advantage to be claimed in favor of big hogs. There never was a monster hog which did not make the man who raised him pay for every pound he weighed. They do not furnish an ounce of meat gratis, but charge full price for every atom of their carcass. When slaughtered, it takes a long time to get one cool to the marrow in the bone, and when the hams are put in salt, it is troublesome to finish them to the centre. Four hundred live weight, is as large as hogs should be in order to make good bacon. Beyond this size there is a loss somewhere. Either the feeder, butcher or consumer is cheated, and as a general thing every one who has anything to do with the big hog will find, if he observes closely, that they are not so profitable as the smooth nice hog of only 350 pounds weight. A small head, with little upright ears, and legs and ears delicate to perfection are marks which indicate the greatest amount of food consumed; and it will always draw more readily the attention of every butcher.

Ammonia for Cleansing and Other Uses.

The uses to which ammonia can be put are extending daily, as its value becomes better known. This is the case not only in the arts but in domestic economy where its varied applications are beginning to make it recognized as a valuable article. Tho liquid, ammonia, plentifully diluted is found to increase the growth or house plants, and as a cleanser and purifier it stands paramount. The fact that fatty and greasy matter saponifies with ammonia is taken advantage of in many ways. By adding a little to warm water, paint can be washed thoroughly and much easier than with soap alone. By the addition of a teaspoontul to a basin of water for bathing, it is softened and imparts a delightful sense of coolness after washing. It will clean hairbrushes, etc., most effectually by dipping them in a solution of warm water and ammonia; will cleanse cutlery, carpets, crockery, glass and floors. A few drops on a window-pane will clean it as bright as possible, and much better than water alone.

From whatever place grease spots are to be removed, whether from the floor, paint, woolen or other fabrics, it is very convenient. Ammonia has been used with good effect in curing poisonous bites, such as those of snakes, etc. Mixed with oil it is used as a soap, under the name of soap liniment. Experiments are being made with it as a motive power from the fact it only employs 126 units of heat in its expantion, while water absorbs nearly five times as much heat. The common liquid boils at 122° and affords a pressure of six atmospheres at 232° F., while steam requires a heat of 320° to produce the same results. It is said that ammonia prevents iron from rusting although it acts on copper and brass. We understand that ammonia for washing and cleansing purposes is being manufactured in this city in quantities and is being sold by the retail grocers, so we hope there will be no future necessity for further importation. When people become more accustomed to use it, they will realize the benefit to be derived from it to a greater extent. The article made here is intended in a measure to be used for washing purposes, and there is every reason to be assured that it will aid materially in cleansing clothes. It is universally used in Europe for every-day family use and if offered at proper prices here, so as to bring it within reach of every household, will rapidly come into favor as it has elsewhere.

Trade-Marks.

"Any person or firm domiciled in the United States, and any corporation created by the authority of the United States, or of any State or Territory thereof, and any person, firm, or corporation resident of or located in any foreign country which, by treaty or convention, affords similar privileges to citizens of the United States, and who are entitled to the exclusive use of any lawful trade-mark, or who intend to adopt and use any trade-mark for exclusive use within the United States, may obtain protection for such lawful trade-mark."

The foregoing is an exact copy from the Patent Laws of 1870. In accordance with the Patent Office rules established by authority of the law, a *trade-mark* may be patented for thirty years, and renewed for a term of thirty years.

A legal trade-mark, properly registered, becomes personal property that can be sold and assigned. The law says: "Any person or corporation who shall reproduce, counterfeit, copy or imitate any such recorded trade-mark, and affix the same to goods of substantially the same descriptive properties and qualities as those referred to in the registration, shall be liable to an action on the case for dam ges for such wrongful use of said trade-mark, at the suit of the owner thereof, in any court of competent jurisdiction in the United States, and the party aggrieved shall have his remedy according to the course of equity to enjoin the wrongful use of his trade-mark and to recover compensation therefor."

The *American Newspaper Reporter* makes the following sensible remarks:

"Every person, or firm, doing business, no matter of what kind or nature, so long as it is honorable, should have a trade-mark. It serves as an advertisement, and the first mere nominal cost is a trifle. Yet in a year's business the same amount of circular advertising would cost hundreds of dollars. The trade-mark is a distinction, which cannot be imitated, as the law protects it. Americans, who excel in the manufacture of certain classes of goods, and place their goods in European markets, soon discover that they are not only in competition with the best makers of the same line of goods, but find that their trade-mark protects them from imitation and counterfeit. Ingenuity can be called into exercise by the use of trade-marks. Some use an almost indescribable monogram; others are eccentric or unique ones, but the most appropriate is the concentration of aptitude for the especial business in which parties are engaged. If a pyrotechniat, he would not use for a trade-mark a fire engine engaged in putting out the flames of a building. There should be an eternal fitness of things. There are many people engaged in the same business, yet it would not be at all difficult to have an especial originality in their designs. Let manufacturers put a trade-mark upon all their productions, and let dealers do the same to all the wares they send out. It is a protection to the former, and of vast business benefit to the other."

Designs for trade-marks are taken out by Dewey & Co. of this city, for $15, including Government fees.

Conservation of Force.—Dip the hand in a finger-glass until the temperature of the water therein is raised one degree. An amount of energy is withdrawn from the hand sufficient to project that water to a hight of 772 feet above the earth's surface.

Miscellaneous.

Value and Utilization of Water Power.

During a late speech at Louisville, General Butler said, on the subject of the utilization of water privileges for manufacturing purposes: "There is one bond-servant that we have in Massachusetts which you have not yet captured and made work for you. You have a river 500 miles in length with falls of 26 feet. We have a river in Masachusetts—the Merrimac—of only 90 miles in length, and we have captured it, and made it do the work of 65,000 horses. In adding to your industry that power—you have it right here—you will find that you are using a power which will increase your facilities with the least cost. It is the secret of Massachusetts' prosperity—a state with a sterile, rocky soil, and eight months of winter."

We never look at the rivers of California, without wondering that so little is done to utilize them, either in the way of irrigation, or in harnessing them to machinery. The remarks quoted above are quite as applicable to this State as to Kentucky. At a single locality on the Merrimac river at Lowell—10,000 horse power has been utilized, which has been the means of collecting a population of 40,000, producing an annual value in manufactures of $24,000,000. Fall River has a population of 23,000, and a valuation of $17,000,000. Lawrence, with a power nearly equal to Lowell's, has already a population of 30,000. It has been laid down as a safe proposition that a population of 1,000 may be looked for to each 166 horse-power employed in textile or equivalent manufactures, whether that power be derived from water or steam.

Moreover it is not absolutely necessary that our rivers should plow over dams or down rapids to utilize their power, to at least a moderate extent.

At any point in a stream of reasonable depth, large paddle-wheels may be attached to an anchored boat, or to a staging built across or out into the stream, which may be turned by the water that flows incessantly beneath, and which would thus catch a vast deal of power, which, for the want of such similar contrivance, we now extract from coal at a cost of from $10 to $15 per ton. Such wheels are largely employed by our California miners for pumping purposes; but we have no recollection of ever seeing such wheels employed for any other purpose, either in California or the Atlantic States.

At Mains, on the Rhine, all the grain is ground by mills located on boats, like those above described, notwithstanding the inconvenience of their presence to the crowded commerce of the river. The barges are located in a line straight out from the shore, one beyond another, and perhaps a dozen in number. In the dearness of coal prevalent in England, ingenuity is racked to find new sources of power, and a Mr. Bramwell proposes to erect dams across narrow inlets of the sea, and when the tide comes in to shut it in and make it work a turbine wheel and pump water into a system of accumulators, when it would be transmitted to neighboring manufacturing districts. This is possible from the fact that a very small pipe, if strong enough, will transmit hydrostatic pressure to any distance or depth, as perfectly as though it were a canal.

Fires and the Atmosphere.

The question why fires at certain times spread so much more rapidly, and are so much more difficult to check, than at others, possesses a very high degree of importance and interest. After all the reasons that can be given for the spread of most of our great fires, nearly or quite all the causes assigned, both by practical and scientific men, could generally be found to exist in cases where the conflagration was comparatively slight, and where the means of extinguishing it proved no less effective than usual.

Every one who regularly attends to an ordinary grate or stove, has frequent occasion to observe that a fire, which burns brightly at certain times with a certain draught, will often require, at other times, a much greater draught to keep it from going out. In some cases this is readily understood; but in many instances it is in a very great degree owing to causes which neither science nor practical observation knows anything about.

The simple fact in regard to the whole matter is, that the different states of the earth's atmosphere are a subject concerning which, like a great many other things, science is able to tell much less than scientific men are generally willing to acknowledge. There are certain philosophic truths, indeed, in regard to the atmosphere, which are well ascertained, and respecting which no one capable of understanding them can have any doubt. But there are others in reference to which we are as ignorant as the ancient Romans. There are very many phenomena connected with the subject of the air we breathe, for which science utterly fails to account, and among these the numerous phenomena produced by the action of fire, occupy no unimportant position.

There is sometimes, in case of a very destructive conflagration, a kind of criticism heard, in respect to alleged want of efficiency in the firemen, which is unreasonable, as the blame often attached to a doctor when a patient dies of a disease from which an individual has, under the care of another physician, recovered. The cases of the two patients—although, so far as could be seen, exactly alike—may have been, in reality, entirely different. So with fires. The skill and energy which will effectually check one, will not always prevent the spread of another, although the circumstances may be, apparently the same.—*N. Y. Times.*

Interesting Chemical Experiment.

An experiment involving a molecular change in the condition of an element, can be performed as follows:—Let a copper and platinum strip form respectively the negative and positive terminals of a galvanic circuit; immerse these in a hydrochloric solution of chloride of antimony. The result of the galvanic action will be the precipitation of the antimony in form of a fine impalpable powder upon the surface of the copper, from which, when enough has accumulated, it may be readily removed by bending the copper strip back and forth. The metal thus obtained, if placed in a mortar, and vigorously triturated in with the pestile, will detonate with some violence, the explosions being at the same time accompanied with the evolution of light and heat. This curious phenomenon appears to be purely the result of a molecular change, induced in the metal by the mechanical force employed; the consequence being the conversion of the amorphous powder to a crystalline condition. It would be of some interest to note whether the same result would follow the application of heat to the powder, since, from the announcement of Bunsen, made some years ago, the metals rhodium and iridium, when deposited from solutions of their salts in an analogous manner, manifest this property in an extraordinary degree; so much so, indeed, that the scientific world came very near losing the invaluable services of its illustrious discover in consequence of a severe accident which befel him from this very unexpected source. It would be a matter of no little interest to trace the analogy here indicated, to one of positive identity in kind, by investigating the behavior of such precipitated antimony when heated, as was the case with the platinum metals experimented upon by Bunsen.

A Fatal Flaw in the Darwinian Theory.

Muller recently delivered a lecture before the Liverpool Literary and Philosophical Society on the phase of Mr. Darwin's theory which deals with the possibility of animals acquiring the faculty of articulate speech. Mr. M. maintained that the true barrier between man and beast was language. He gave various illustrations of the essential difference between the expressions of emotions—the language of beasts, and the expressions of ideas or abstract conceptions—the language of man, and argued at length on the impossibility of mere emotional signs or sounds being developed into articulate speech. He ridiculed the idea of the possibility of a gradation from the neigh of a horse to the poetry of Gothe! Man and animals possess emotional language in common, because man is an animal; but brute animals do not possess rational language, because they are not men.

Rational language is traced back to roots, and every root is the sign of an abstract idea, and not the demonstration of an emotion. Mr. Darwin has seen the importance of overthrowing this bar to the maintainance of his theory, and has assumed to find savage languages which contain no abstract terms; the fact that such have been found is denied. The lecturer holds that until Darwin finds a language containing no terms expressive of the abstract ideas of father, mother, brother, etc. he fails to maintain his position.

Biela's Comet.—Astronomers do not universally indorse the idea that the object discovered by Mr. Pogson, on the 2d of December, was without donbt the lost comet of Biela. All that is certain is that Mr. Pogson turned his telescope on the track of the retreating meteors of November 27th, and saw an object of cometary appearance. If really Biela's comet, something very extraordinary must have happened to that body, which, according to the very accurate calculations of its path, would have been in perihelion on the 14th of October, whereas the group of meteors which produced the shower seen here on the 27th of November, did not arrive at its nearest distance from the sun until the 25th of December. The earth crossed the orbit of that comet, with which the meteors appear to have so remarkable a connection, on November 27th, but the comet itself was far away, unless some catastrophe had occurred to it since last seen, concerning which speculation is quite at fault. It is more likely that what Mr. Pogson saw was another concentration of cometary matter in the orbit of Biela. —*London Athenæum.*

The copper product of the mines in the Lake Superior region, for the year 1872, was about 15,175 tons.

Farmers in Council.

Farmers' Club of Sacramento.

The Club met at the Pavilion, Saturday, February 22d.

Jute — Co-operative Winery.

Johnston moved that the subject of "Jute," which was chosen for discussion at this meeting, be continued for a week, as the Secretary, who was to read a paper on the subject, was absent. The motion prevailed.

Johnston said that Ames Adams, Chairman of the committee to select a site and make arrangements for the establishment of a co-operative winery, was present and prepared to make a formal report.

Adams said he was not prepared to make a formal report. The farmers had been so busy during the last six weeks or two months that it was thought impracticable to pursue the matter any further. In conversation with grape growers he was satisfied that the winery would be a success. We could get up one either on the joint stock principle or on the incorporative plan.

On motion, the committee, and all parties interested in the establishment of the winery, were requested to meet at the Pavilion March 15th.

Cultivation of Nut Trees.

The question of the cultivation of nut trees was brought up.

Williamson said that the pecan tree was an easy tree to raise from a nut, but hard to raise by transplanting, as it sends down a large tap root which has to be cut Some think that a tree that has been transplanted is better than one that has been raised directly from the nut. A transplanted tree will bear earlier and is more prolific. It will send down a tap root and also lateral roots, while a tree naturally has only a tap root. The butternut tree can be grown in this country, but it does not grow so readily from seed as the black walnut. It grows very slowly in this climate. The sun seems to affect it considerably. In San Jose they do quite well. He had never seen a tree here over four years old, and they were all comparative dwarfs. They never grow higher than six feet. The California walnut will grow twelve feet high in a few years.

Murphy asked information in regard to the almond, what kind of soil is best for it, what size tree is best to transplant, and what kind is best for the California market?

Williamson said that, as regards soil, the almond will succeed on almost any soil we have. It will succeed on drier soil than any other tree, if it is on its own root, and if on a peach root it will succeed where it is too dry for the peach itself. He considered the Languedoc the only variety that is worthy of cultivation. We have many kinds of seedlings, but he had never seen anyone that will compare with this variety. The paper-shell almond is comparatively worthless. The tree is scrubby, ugly and crooked, to begin with. Then it is not very prolific, and not only that, but the nuts are so soft-shelled that the birds destroy them all. There are risks in growing almonds in this valley because of the spring frosts There is less risk on the high lands than on the low lands; in fact, he thought, there was very little risk on highlands. The tree is not more liable than any other tree to be injured by excessive water. They will stand more exposure, either wet or dry, than the peach tree. The raising of the nut is very profitable, and is destined to become a matter of importance in this State.

The Malva Tree.

Major Beck wished to call the attention of the club to a tree called the malva. He presented a scrap from a newspaper, reprinted from an editorial in the *Alta*, describing the wonderful tree. The tree grows leaves in profusion and the cattle are very fond of them. Bees make honey from the flowers, and the body of the tree is so fibrous that it requires but little labor to convert it into ropes, coarse cloth, etc. The article advocated its introduction into this State, as it is found to thrive in our climate and soil. Major Beck moved that a committee be appointed to consider the matter and report at the next meeting. He said he had experimented on the mulberry tree, on jute and ramie plants, and a thousand other kinds of trees and plants that we suppose were valuable. He did not know anything of the facts in this case, except that he cut it out of a respectable paper. If this is a correct report of the qualities of the plant he thought this club should take it into consideration.

Several members expressed themselves acquainted with varieties of the tree, which grew in this vicinity.

The matter was referred to a committee composed of Johnston (Chairman), Aiken and Williamson.

Production of Chestnuts.

Williamson said he had expended about $300 in trying to grow the American chestnut, and had signally failed in every instance. Still he thought there were localities in the State where it would flourish. It is said to thrive in the mountains, say in the altitude of Dutch Flat. The Spanish and Italian chestnuts will succeed well here. He did not know why the American chestnut would not succeed, but thought it was due to the presence of alkali in the soil and the extreme heat of the sun. He failed in trying to make the hickory tree grow.

Manlove and Aiken said they also had failed in their endeavors to raise hickory trees.

Hoit said he obtained four or five years ago, some chestnut trees called "Italian," and planted them in sandy soil, and succeeded in raising about fifty trees; but in transplanting them to a low sediment soil he lost all but about ten or twelve, and they have grown very vigorously, and show no signs of decay.

Major Beck said that in his travels down the coast he stopped at a dairy farm. The warm water in which milk-pans, pails, etc., were washed was run out into a ditch, and on the side of this ditch a row of trees was planted. The tree nearest the house was fourteen or fifteen feet high, and the other trees were smaller, gradually downward as they were further away from the house. He wanted to know why it was so.

Rutter thought it was the heat of the water, for the reason that nature requires heat. The tree nearest the house received the most heat, and grew faster on that account. Besides, the nutritious elements contained in the milky water might have contributed to the growth of the tree.

Hoit thought the soap in the water had something to do with it, as it was a great fertilizer.

Club adjourned for one week.

Napa County Farmers' Club.

The Club met Feb. 22d, President Fisher in the chair, and quite a large attendance of members.

The President presented a "memorial," adopted by the Sacramento Farmers' Club, setting forth the grievances to which farmers are subjected by the high rates of transportation over the C. and U. P. Railroads, and the dangerous prominence which this matter has assumed in our politics, and urging upon Congress the importance of a thorough investigation of the subject, and such action as will protect the people against imposition. The memorial was read by the Secretary, and its substance approved by the Club.

On motion of Mr. Gridley, the Secretary was directed to correspond with the Secretary of the Union with the idea of promoting facilities for disposing of the prospective grain crop.

Mr. P. Van Bever, Treasurer, presented his report to date, and tendered his resignation in view of his departure to the East and Europe. No action was taken.

The Secretary, by request, read the Constitution of the Patrons of Husbandry, and the National Grange.

This is an organization of farmers, for the purpose of mutual benefit and of united action, in all matters that interest farmers. It is secret in so far as is necessary for the successful prosecution of its business. The wives of farmers are admitted to membership. The organization is bound to assist such of its members as may need assistance through misfortune. In its objects it is precisely the same as the Farmers' Clubs; differing from them only in that which is calculated to make its working more efficient.

Mr. J. M. Thompson suggested that action be deferred until next meeting, that we might secure a more general attendance.

Mr. Nash said it had become evident that we did not start right. It is better to go back and start again. Thinks this is the right way. Here is an organization with a body and soul.

Mr. Gridley thought that the Granges meant business. They were so organized that they could do something. He heartily approved of the proposed change of the Club into a Grange. Every one present added his indorsement.

Mr. W. A. Trubody exhibited to the Club his rain-gnage, which is the same as adopted by the Smithsonian Institute. He also made a report of the amount of rain which had fallen during the last seven years, respectfully, as follows:

Years.	Inches.
1866-7	26.36
1867-8	30.34
1868-9	19.84
1869 0	15.61
1870-1	10.92
1871-2	30.28
1872-3 to date	14.08

The average amount for the fist six years was 21.31 inches. He infers from the average of the past that the amount yet to fall this season will be about six inches. The difference in amount of rainfall between his place six miles above town and Mr. Thompson's, six miles below town as about ¼ more in his favor. The rainfall at Mr. Thompson's to date has been only 12.11 inches.

Club adjourned to meet again in two weeks —March 8th.

G. W. Hennino, Sec'y.

—*Napa Register*.

Farmers' Mass Meeting.—A mass meeting of the farmers of San Joaquin valley is called to take place at the Court House in this city, on Saturday, March 1st, at 1 o'clock P. M., for the purpose of organizing a co-operative association for the protection of their interests. By joint effort and unity of action they hope to succeed in removing many of the evils with which they have had to contend in the past, and which have afforded just and reasonable cause for complaint. The movement is more extensive and the spirit of earnestness much stronger than we have at any time heretofore known to be manifested. The farmers have thoroughly resolved to take the sole and complete management of their own business and conduct of their own affairs into their own hands.—*Independent*.

Sonoma Farmers' Club.

The Club met at 2 P. M., Vice President Davis in the Chair. There was less talk and more business transacted than at any previous meeting. The Committee on obtaining stock subscription for the Sonoma County Farmers' Union, made a favorable report. In addition to the stock already subscribed, over $2,000 was taken at the meeting. Mr. Coulter, of the Committee, in answer to questions by Mr. J. J. McClellaud, explained that the first object of the Union would be to obtain sacks for the present crop at reduced rates by uniting together and purchasing them in quantity at less rates than heretofore. All members of the Club and farmers generally, interested in procuring cheap sacks were cordially invited, by resolution, to attend the next meeting of the Club, which will be held at Agricultural Hall, 2 o'clock P. M., on Saturday, March 1. As wheat is to be our main staple this year, and all accounts agree that the quantity of land seeded and probable product will double that of any previous season, the question of sacks becomes one of the first importance. It is hoped that farmers will generally look at it in that light and unite with the Club in securing them promptly at low prices. It will result in the saving of many thousands of dollars to the country.

Mr. J. De Turk made a most important suggestion in regard to an experimental farm, supporting the proposition with many strong and ably presented reasons. He was in favor of putting it at once into operation. It is one of the most practical schemes yet presented before the Club. It was made the order of the day for the next meeting. Our report is less full than usual, owing to the absence of the gentleman who usually furnishes them. The crop repots given by members is still of the same favorable character as heretofore published. Imported Silesian beet and other valuable seeds, were distributed to members. There is still a supply on hand, which will be supplied at the next meeting to those who desire it.—*Democrat*.

San Joaquin Farmers' Club.

The Club met at Pioneer Hall, Saturday, the 22d. Captain Ketchum in the chair, and W. G. Phelps acting as Secretary.

Mr. Phelps, from the Committee on Reorganization, reported amended constitution and by-laws:

The by-laws embrace nineteen rules for the guidance of the Club in the preservation of decorum, deciding questions, order of business, prescribing the time to which each member shall be limited in debate, etc., etc. The three last rules prescribe that no motion or question shall be debated or put to vote unless the same shall be seconded and reduced to writing, if any member desire it; also, the reports of committees must be in writing; likewise every member of the club present at the meeting shall vote unless excused.

Mr. Phelps recommended the adoption of the amended constitution and by-laws, as reported by the committee. After some discussion, adoption of the same was, on motion of Hon. Samuel Meyers, postponed until the next meeting of the club on Saturday, March 1st.

A communication received by the Chairman setting forth the advantages of an improved harrow, was presented to the club, but no action was taken thereon.

Mr. Hitchcock exhibited a sample of young wheat from his farm on the sand plains. The wheat is volunteer crop and is twenty-two inches high. After a prolonged conversation upon several topics bearing upon the interests of the club, the meeting adjourned until Saturday, March 1st, at 1 o'clock P. M.

Another Farmers' Club.

The farmers of Bridgeport and vicinity met at the Bridgeport Schoolhouse on the evening of Feb. 13th, for the purpose of forming a Farmers' Club. J. C. Wilkins, was called to the chair, and M. Stinchfield was elected Secretary.

The Chairman, in an able address, stated the object of the meeting—reviewing the wheat market for the past season, quoting the ruinous prices received by grain-growers for their produce—all caused by the reign of grasping monopolies whose power could be broken by the proper organization of the farmers for the protection of their interests and the insurance of the profits derived from the soil, that rightfully belong to the producer.

Speeches were made by Davis, Earp, Pollard, and others advocating the organization of clubs for the protection of farmers' interests. A committee, consisting of Davis, Earp and Stinchfield, was appointed on permanent organization. Also a committee on correspondence, consisting of Wilkins and Earp.

It was resolved that the procedings of the meeting be published in the Colusa *Sun*, and that a cordial invitation be extended to the farmers to be present at the next meeting, to further discuss the propriety of the movement.

The meeting then adjourned, to meet at Bridgeport, February 26th, 1873.

Moses Stinchfield, Secretary.

—*Colusa Sun*.

Duty on Grain Sacks.

Editors Press:—The Farmers of Dixon and vicinity met at Dixon last Saturday, and partially organized a Farmers' Club; the organization will be completed next Saturday. A petition to Congress for the repeal of the duty on sacks was presented and numerously signed, a copy of which I will send you herewith. I hope you will publish it and recommend that the various Farmers' Clubs throughout the State take it in hand and secure as many signatures as possible and *as soon* as it can be done. If the form of the petition is objectionable give us a better one. I feel sure that if all concerned in the agricultural interests of California will as one man ask for the repeal of the duty on sacks, something might be accomplished.

J. M. D.

Dixon Feb. 17th, 1873.

The Petition.

To the Honorable, the Senate and House of Representatives in Congress assembled.

The undersigned petitioners, citizens of the United States, of the State of California, respectfully represent—

That all taxes should be as equally borne by all the people of the United States as possible. That a tax which reaches one part of the country and leaves the rest untouched, or nearly so, is manifestly unjust.

And your petitioners would further represent that in their opinion the import duty collected by the United States, of thirty to forty per cent. on our grain bags, and the material of which they are manufactured, is a tax which has almost entirely a local bearing, that it is unjust to, and discriminating against, the agricultural interests of the Pacific Coast, that while the grain surplus of the Atlantic States is moved to the seaboard, and thence to Europe in bulk, we, under an inexorable custom are compelled to put ours in sacks for which we get no adequate return; that the import duty on the sacks used in California the past year amounts to over one-half million of dollars, which is equivalent to a "direct export tax" of that amount upon the wheat crop of California, that said tax is burdensome and unjust, and we pray your Honorable Body to repeal the import duty on all burlap bags and all material of which they are manufactured, that they may be admitted free of duty, and your petitioners will ever pray.

Patents & Inventions.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[Reported Officially for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Feb. 25th, 1873.

For Week Ending February 11th, 1873.*

Railroad Track —Alexander D. Rock, Hamilton, Nev.

Straw Feeding Attachment for Furnaces.—David Morey, Watsonville, Cal.

Trade Mark.

Medicinal Compound.—Emil Frese, S. F., Cal.

*—*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

State Board of Agriculture.—At a recent meeting of the Board of Directors of the State Agricultural Society, Messrs. Cox, Ross and Carey were appointed Committee on Stock Grounds. The privilege of selling pools at the next State Fair, was given to Chase and Covey for $2,500. Committee on Speed programme as appointed by the President, are Messrs. Boruck, Green and Mills; Committee on Agricultural products, Implements and Machinery—Messrs. Hamilton, Chamberlain and Briggs; on departments Nos. 3, 4, 5 and 6.—Messrs. Ross, Green and Boruck. Board adjourned to meet on Tuesday, March 18th, at 7 P. M.

The Averill Chemical Paint, in addition to its cheapness and durability, is said to possess another admirable quality—the capability of being washed without injury to the paint. J. W. Tucker & Co.'s building, on the corner of Sutter and Montgomery streets, painted in December 1870, by Sweet & Gadsby and washed this month, is referred to by the company as one among the numerous instances of its merits in all respects as claimed above.

Sacramento Seed Stores.—Among the most reliable seed stores in the State are those of W. R. Strong and A. H. Cummings & Co., of Sacramento, and they both do a large wholesale and retail trade. Their advertisements will be found in our columns.

Agricultural Notes.

ALAMEDA.

Transcript, Feb. 20: Winter Pears.—The writer of this item plucked a number of pears, on Wednesday, from a tree in the garden of Hotel de France. They are in prime edible condition, and in color closely resembling the New England russet apple, rather dry, but toothsome.

Agricultural College. — The very last brick was laid in its place at the new Agricultural College at Berkeley on Friday, but before completing their labors, there are some few improvements to be made—in brick work, etc. The lathing, plastering and plumbing will come next, and we are assured by the superintendent that the work in all departments is proceeding thoroughly and satisfactorily.

Silk Manufactory. — Home industries in Oakland are steadily and surely increasing in numbers, variety and valne. Within a few weeks past we have had occasion to chronicle the establishment of artificial marble, jute, rope, carriage and other manufactories, and now we have the pleasure of informing our readers of another for the manufacture of silk. This establishment was visited a day or two ago by "one of ours," who found it on the corner of Market and Twenty-second streets. The proprietor, Joseph Green, is a native of Warwickshire, Englaud, and has been a resident of California during the last two years. He had been engaged in the manufacture of silk in Coventry since his boyhood, and returned to his native land one year ago last November to purchase machinery. This was greatly delayed on the long passage, and only reached here last month. Since then, Mr. Green has been incessantly occupied in putting up his machinery and getting it in working order. The factory has been in operation but a few days, but the specimens of the black and other colored silks turned out exhibit a high order of workmanship.

CALAVERAS.

Citizen, Feb. 22: Good Times Coming.—This coming summer promises more prosperity to the county at large than any for several years past. The snow fall in the mountains is almost unprecedented in quantity, assuring miners of an abundant supply of water until late in the fall. The crops look finely, considering the extra cold weather of the past two weeks. The hills are already thickly covered with a mantle of green, and lively times are anticipated by all. Who cares? Let them come.

CONTRA COSTA.

Ledger, Feb. 25: Rain.—It rains when least expected. One hour sunshine the next rain and hail. The farmers are delighted, though by common consent enough has fallen to satisfy all present demands. By Abbott's gauge, we have had during the season thus far 12.63 inches.

FRESNO.

Expositor, Feb. 19: In Blossom.—Peach trees in this section have commenced blossoming.

The weather during the past week has been quite showery, not a day has passed without more or less rain falling.

From all we can learn about one thousand acres of land will be planted with cotton this year in this county.

The crops are coming on fairly and bid fair to excel those of last season. In an agricultural point of view times are prosperous in Fresno county.

This has been one of the coldest winters ever felt by the residents of Fresno county, yet it has been exceedingly mild. As an evidence, in the garden of Mr. C. A. Hart is now growing, and in blossom, a migonette plant, which has stood out throughout the entire winter unprotected, and subjected to all its rigors, and has during the entire time been covered with fragrant flowers. The plant is known by every gardener to be an annual of a most delicate character, but here we have an instance of its being transformed into a perennial without care or attention.

HUMBOLDT.

Times, Feb. 8: Immense.—We understand that the quantity of logs in, and on the banks of Elk river, awaiting high water in that stream, aggregates between twenty-six and twenty-seven million feet.

Arcata.—The late rains have put our streets and roads in a shocking condition, there is consequently very little travel. Owing to this there is not much doing in the business world, hereabouts, and our town is dull.

The farmers have got along bravely with their work, but during the rainy weather but little can be done. Large crops will be planted this year.

LOS ANGELES.

Southern Californian, Feb. 15: Tree Planting.—We counted during the past week, twenty-three wagons loaded with vine cuttings and every variety of fruit trees, all to be set out by farmers around Anaheim.

The rain-fall to date, although one-half of an inch less than at this time last year, has proven much more beneficial in its effect upon the crops. The rain, occurring in December and January and continuing through a period of ten days, was thoroughly absorbed by the dry earth. Since that time, there have been no hot-parching east winds to dry up the moisture and blight the young grain. Just at the proper season came the hard, soaking rain of the past week. In a few days, the grain will be of sufficient hight to shade and keep moist the ground. With favorable seasons from time to time, even without more rain, the crop of small grain will amply repay the farmer for his labor.

The rapid and almost instantaneous growth of vegetation in the valleys and on the hillsides of Southern California can scarcely be imagined. As if by magic, the Earth has donned its holiday attire—

"Over the moistened fields
The bladed grass shoots forth exuberant,"

And the dry, sterile-looking plains of yesterday, are to-day clothed with a garment of the brightest green. To the lover of Nature, no more beautiful sight can be presented than the little town of Anaheim, encircled by its twelve hundred acres of budding vines and nestling at the foot of the snow-clad peaks of the Sierra Madre; to the practical man, no better proof of our future prosperity can be offered than the broad fields of grain, springing up in a day.

MONTEREY.

Democrat, Feb. 22: How it Fell. — Twelve inches of rain to have fallen by this time of the year is perhaps not extraordinary, but it is seldom that the rain falls in so beneficial a manner as it has done this season. There have been no downpours to flatten or pack the earth by their weight, the rain has not run off through the water channels as it sometimes does, but nearly all which has fallen has been absorbed into the earth and is retained by it.

The Crops.—The general understanding is that about one-half the grain lands of the county were seeded previous to the last rains.

SACRAMENTO.

Folsom Telegraph, Feb. 22: Snow.—The weather about this latitude has been decidedly wintry for a week past. Cold rain, a sprinkle of snow, and heavy white frosts have been the variations, with a few days of bright sunshine, peach blossoms and heavy emerald grass. On the hillsides, within two miles of Folsom, two or three inches of snow fell on last Sunday night, at Lathrope three inches, and at Placerville, about twelve inches. No damage done however to the fruit.

SAN BERNARDINO.

Argus, Feb. 6: Midwinter Peaches.—Mr. A. G. Perdew, whose ranch is situated one mile from the hydraulic mines, on Lytle Creek, has a number of fine peach trees which bloomed four months ago, and the young peaches now upon them are healthy and growing fast. One of the most remarkable growths of which we have ever heard is that of a peach tree in the garden of Mr. W. P. Perdew, corner Utah and Second street. The tree is only nine months old and already measures five inches at the butt, main stalk eight feet one inch. Total number of feet in branches upon the main stock, one hundred and eight. Where can San Barnardino be beaten on peaches.

Big Run.—Mr. B. F. Mathews of the Southern Pacific Flour Mill in this city, with a head of 130 inches of water, and with only one set of burrs, ground 167 sacks or 15,000 lbs. of barley in 2 hours and 45 minutes on last Friday.

SAN DIEGO.

Union, Feb. 6: Green Peas.—In the rear of the County Jail there is a piece of ground tilled by the prisoners. On this piece of land quite a variety of garden vegetables are raised. There are at present growing on it several rows of pea vines, all of which are loaded down with pods. Several crops of pods have already been picked, and judging from the quantity of blossoms still on the vines the prospects are good for at least another.

Beds of Mammoth Oysters.—Yesterday we were shown an oyster shell measuring 22x9 inches, which had been found by Chinamen on the coast of Lower California. Quite a number of other mammoth oyster shells were brought up by the same parties from the same locality. It is said that extensive beds of these shellfish exist there.

SANTA BARBARA.

Press, Feb. 15: Strawberries.— "Gus" Dinsmore brought in a fine supply of strawberries yesterday, fresh from the vines.

What Grows Here.—To give our distant readers an idea of what grows here, we copy the following list of fruit, nut, and ornamental trees, etc., which we find in the circular of O. L. Abbott's nursery: Lemons—Sicily, Chinese, Sorrento, Sweet, budded on Chinese stock; citron, limes, oranges—Mexican, budded on Chinese lemon, Havana sweet, Mammoth Chinese, wild, sour, Florida, ornamental, Los Angeles; Shaddock—budded on Chinese lemon; Loquat, Palm—Assyrian Date, Egyptian, Fan, Dragon tree; Olive, Pomegranite, Liquorice, Plum, Cherry; Apple—different varieties; Fig—Small white, Large white Currant—Cherry; Blackberry—Lawton, seedling; Raspberry — Red Antwerp, Yosemite; Strawberry — Jocunda, Wilson's Albany, Longworth's prolific; Barberry.

Nuts—Almonds — Languedoc; Walnut English, American black; Butternut; Hickory—Shellbark; Pecan.

Ornamental Trees—Pepper trees; Poplar—Lombardy; Maple—Soft; Acacia—six varieties; Osage Orange—Hedge plants.

SAN JOAQUIN.

Argus, Feb. 8: The Rainfall.—The amount of rain which fell at this place during the late storm, according to the observations of Joseph Leeson, Esq., who keeps the rain gauge, was 2.81 inches. The whole amount of the rain for the season thus far, commencing on December 22d, 1872, is 11.20 inches. It is probable that the rain-fall of February, March and April will bring the season up to an average of past winters, and that the people will be blessed with another good harvest. Farmers are now quite jubilant over the prospect for crops.

Independent: A Valuable Grass.—Experiments tried in the southern part of the valley in cultivating Hungarian grass have proved very successful, and it is ascertained that it is far superior to other kinds of hay for stock in winter, and the stubble on the fields upon which it is raised affords fine pasture for stock.

SANTA CLARA.

Mercury, Feb. 20: Jute.—We understand that there is quite a disposition on the part of our farmers to see what can be done in the way of raising jute in this county. The estimated profit per acre from this crop is from $200 to $400, but this is probably an exaggerated statement. However, jute is of more importance to our wheat raisers than as a mere marketable commodity, and we suggest that the Committee on Experiments of the Farmers' Club, put jute on their list for a trial.

Our Wheat Crop.—From the best figures we can get, we make the value of the wheat crop of Santa Clara county for the last season one and a half million dollars. This is a pretty large sum, but it does not fairly represent our grain-producing capacity. This estimate is based upon the low prices at the commencement of the market season, and if our farmers had obtained a fair valuation for their crop, the showing would be much larger.

Large as was the area sown last season, it will be much larger this year. The acreage, as accurately as it can be estimated at this early day, will be from twenty-five to thirty-three per cent. greater than last year. With a season which promises to be the most productive ever known in our valley, the value of next season's crop will not fall much short of two and a half millions of dollars.

SANTA CRUZ.

Sentinel, Feb. 22: Fair Weather.—Thursday morning the sun shone out full and fair, on the oceans of mud in our streets, and with a brilliancy quite dazzling on the white snow, as seen on distant mountains. The contrast is wonderful; just around us may be seen pear trees in full bloom, and the hills, within eight miles, are covered with snow eight inches deep.

The annual return to the Cowlitz river of that delicious little fish called the smelt commenced a couple of weeks ago, and the river is literally alive with them. With a scoop-net of about 15 or 20 inches in diameter, it is practicable to stand anywhere on the bank and scoop a barrel full in ten or fifteen minutes. The run will last about a month longer, but toward the latter end of the season they are pronounced inferior and the catch is abandoned. A few days ago, the steamer "Rescue" transported seven tons of the fish at once to fill orders from Portland.

STANISLAUS.

News, Feb. 21: Weather.—The weather for the past week, at this place, has indeed been variable. The wind has blown at times almost a hurricane, nor has it been particular from what quarter it came; at other times it blew softly, gently and occasionally lively, say a ten-knot breeze. We have had it warm, moderate, and severely cold. In fact, for a February spell it was at times exceedingly cold — mercury running down to 28°. The little lakes of water were slightly frozen, and a severe frost was visible on the ground. Rain has also fallen at times lively, others gently.

In Bloom.—The warm weather of the eight or ten days past, has caused a few of the apricot and almond trees to bloom. It is thought that the late frost has killed all them that was not protected.

TEHAMA.

Independent, Feb. 22: Crops.—From all parts of the country we have the encouraging report that crops promise better than any previous year. The season of planting has certainly been one of the most favorable ever known, both for plowing and seeding, and an immense amount of ground will be summer-fallowed. The fruit-crop may be somewhat injured by frost, but not enough to make a short crop.

SUTTER.

Banner, Feb. 22d: Snow.—On Monday night the snow, the "beautiful snow," came down from its mountain home and threw its white mantle over the unconscious and guileless inhabitants of the valley, some of whom, doubtless, thought from the looks of things, when they got up next morning, that they had either unknowingly emigrated during the night, or that Dame Nature had been on a wild spree. Tuesday was cold and cloudy and dismal, and the winter of our discontent was not made glorious summer by the sun from New York or any other place else, to the discomfiture of those who had fondly hoped their wood piles would hold out a few weeks longer, till spring, and it was not till Wednesday morning that a view of the Buttes could be obtained. They were covered from about half-way up with snow, which must have been at least a foot deep, and looked not more than four or five miles away; but the sun made sad havoc with it, and before night the snow had nearly all disappeared from the south slopes. This is the first snow that has visited the valley since 1868, when the snow was some six inches deep in the valley. The most severe and disastrous snow-storm that ever visited this section was in the winter of 1862, when large numbers of cattle, that had been driven to the Buttes by the flood, perished, and their bones can be seen bleaching on the hillsides and in the cañons to this day.

YOLO.

Democrat, Feb. 22: Crop Prospects.—Farmers throughout Yolo are feeling jubilant over the remarkably fine prospect for crops. An unusually large area has been put in and they are still crowding in every spare acre as the weather permits. The frequent rains having just the effect desired upon the wheat already up, while by adding more moisture to the soil the late sown is tolerably sure to make a crop. If the season continues as favorable till harvest time as it has been thus far, Yolo county will this year astonish the world by the immensity of its wheat crop and other productions.

Fine Poultry.—Dr. Prather received from Ohio, on Tuesday last, three Buff Cochins and three Dark Bramahs, by Wells, Fargo & Co's. Express. They are really splendid fowls, and arrived in fine condition. The first cost of the lot was fifty dollars; expressage twenty-seven dollars and five cents. Several lots have been received at this place recently by overland express. On one of the boxes was marked "feed me well, and I will lay you an egg." True to promise the egg was laid while at the express office, and doubtless they had done the same every day during the journey.

Mail, Feb. 20: The weather for the past week has been extremely coquettish. Snow, frost, rain, and sunshine have alternated, and we opine the fruit trees that have been blushing into bloom have felt the effects of Sunday night's frost. The Coast range mountains disclosed a thin fall of snow yesterday morning, which scented the gentle northwest zephyr with a chilly breath. The rains of the past week have not been very copious, but they have been very cold and wet. If any Yolo county farmer, of the least faith in Providence, had been placed upon the clouds, clothed with full power, could he have guided the rain so as to have done better service?

OREGON.

Oregonian, Feb. 15: Snow a few inches deep on the hills, and grass a few inches high in the valleys, are to be seen around the Dalles.

But very little wheat has changed hands at Harrisburg within the last two or three weeks, and money is scarce as ever.

It is proposed to have a course of lectures on the Fair Grounds at the next State Fair, on agricultural subjects exclusively.

Mutton sheep are selling at $4@$5 per head at the Dalles at this time. Sheep-raisers are looking forward to high prices for wool.

Linn county has a number of Farmers' Clubs. They meet frequently for discussion The drift of their purpose may be seen in the following resolution, proposed by one of the Clubs: "*Resolved*, That the farmers of Oregon should unite and build warehouses of their own, in order to do away with the class of middlemen or grain speculators who, at present, control prices and reap the only profit:" Another Club is going to discuss this question: "In what way can we procure means to ship our surplus to Astoria?"

The *Plaindealer* says: "As a proof of the mildness of the climate in this valley, we can state that last week we received from P. B. Smith a supply of celery, lettuce, onions, and tongue-grass, raised in his garden this winter. The celery was over two feet long, very white and crisp; in fact, the best we have ever seen raised in Oregon."

According to an order of the Society, at the next State Fair "special premiums of $75 for the first, and $50 for the second, are offered for the largest and best collection of not less than five head of cattle, for breeding purposes, brought from and exhibited by any person residing east of the Cascade mountains; and a further special premium of $65 for the first and $40 for the second, to the person exhibiting the largest and finest collection of cattle for breeding purposes, not less than five head, owned and brought from south of the Calapoola mountains; said cattle from both sections allowed to compete with each other, and for all cattle premiums offered by the Society."

Reporter, Feb. 13: Oregon Farmers' League. An association of the above name has been formed. We have before us a copy of the Constitution which we would be glad to publish were it not for its great length. It has for its purpose the rendering of farmers "more efficient cultivators of the soil and raisers of stock; and to secure fair and equitable prices for the production of fields or flocks." It has an object of procuring seeds, bulbs, roots and cuttings from other regions, of such plants as give hope of adding to the variety of field, garden, orchard or vineyard, and distributing the same among the members of the League for trial and report.

Agricultultural Machinery for 1873.

If the demand for agricultural implements the coming harvest is to correspond with the increased number of acres under cultivation, there will be lively times among the San Francisco dealers in such implements during the season. Several firms, it is understood, have anticipated this demand, and have prepared themselves accordingly by early shipments. It is said that one firm, Treadwell & Co. (still at their old stand), have contracted for above twenty-five car loads of their new harvesting machines, thus early in the season, to secure low rates, besides a large amount of smaller implements. It would seem at this rate, with what shipments they probably have already made around the Horn, and with the stocks of other houses, that there ought to be a sufficiency. Yet, there are good judges in such matters who still predict that the supply will not be ample for the demand.

Home and Farm.

Geology as a Branch of Education.

Without underrating in the least the value of mental and moral science, we propose to speak of Geology as an instrument of education. We believe it has a fitness in this respect not possessed by any other single science. Astronomy may have a more majestic sweep, but geology dives deeper and brings up the key to God's older revelation. It is a great feat to measure a planet, but to tell its genesis and genealogy is a greater. "Geology, in its highest sense, is not so much one science, as the application of all the natural sciences to the examination and description of the creation and structure of the earth. It is not a geographical mineralogy, for paleontology is its most interesting feature. It does not consist in the mere collection of fossils for show or classic baptism; it has a far higher mission than to label phenomena. It is no more a 'heap of facts' than literature is a heap of words; it is an intelligible sentence. Nor does its importance rest upon its practicality. It does indeed unlock the treasures of the mineral kingdom. It is the farmers' and miners' and builders' best friend. It has to do as much with dollars and dimes as the calculation of the banker. Never was anything more clearly made than the intimate relation between the lowest province of political economy and the loftiest reach of scientific investigation. "How effectual and sublime the education of such a science, when the very stones are gifted with a power of exhaustless meaning, and call into action our highest and holiest energies! Not only does geology yield directly a rich harvest of wonderful truth; it also disciplines the mind in a new and living way. He who will follow out the logos of the earth in all its bearings, will reach the full strength and stature of an intellectual man. Who has not felt that the humblest flower asked him questions he could not answer. A host of questions still flock around us as we turn over the rocky leaves of the book of Nature, and put our finger on the very print of that hand that laid the foundations of the earth. Nor does the stream of knowledge stop here; it swells till it spreads itself into heaven Like the rill which by and by becomes a brook, a river, a gulf, an ocean,—so every attainment promises more. The only positive apology for the man who derides geology as a study is, that he has never taken the first lesson. We repel the charge that it is a visionary pursuit. Like every other truth—like the sun itself—it did rise amid the mists of the morning; but now it shines unclouded from the zenith. Geology, said Hugh Miller, no longer journeys amid the waste of chaos; it has got firm footing on the continent of fact. It is a philosophy of ascertained laws. Types, classes, orders, families, genera and species, are not mere artificial devices to facilitate study; they are founded in Nature. It is an unfinished science, but for that very reason it is admirably adapted to rouse the whole energy of the student. It presents the finished outline of a laudscape of untold wealth.

We ask for geology a prominent place in the curriculum of our colleges and schools. How wofully ignorant of nature are many of our graduated men. Nature—the very book whose letters are largest and the only gospel now preached to every creature, is the one in which the mass of mankind read not a lesson, and see not a line. Like Hamlet's ghost, they have "no speculation in their eyes." The sun, coming forth from his chambers and fulfilling his circuit, excites no feeling but that of warmth and convenience. A fossil—the symbol of a divine thought—the sepulchre of a creature that was over the lord of creation—is tossed into a stone-wall without the slightest notice. And yet this lack of observation and reflection is not owing to any deficiency of intellect or taste, but to a neglect or perversion of their powers. The native tendency of the mind is strangled at its birth; the greenness of the Spirit is dried up in the hot race for riches or rank.

Water for Ale Making.

Eds. Press:—As an English brewer, will you allow me to make a few remarks upon ale brewing in California, in reference to your article on "Barley," in the Pacific Rural Press of Jan. 11th, 1873. I fully endorse your opinion that ale can be made with Californian materials as fine as English ale, always providing that suitable water can be obtained for the purpose. It is a well known fact amongst brewers, that the reason of Messrs. Bass and other Burton brewers' success, is owing to a great extent to the abundant supply of peculiar and excellent water. This water is strongly impregnated with gypsum or sulphate of lime, the principal geological feature of its environs being described as a tolerably perfect gypsum, occasionally interspersed with carbonates. If such water as this is obtainable in California, I believe that even more durable ales can be brewed in this equable climate, than in the very changeable one England. W. J. Sanderman.

Glenmark Ranch, Mendocino Co.

A Few General Remarks on our Domestic Animals, and the Horse in Particular.

Editors Press:—Since the Epizootic has made its appearance in this country, I hardly ever take up a paper that I don't see an article on the disease of the noble animal the horse, and in late numbers of the Rural Press, may be found various thoughts on the normal and abnormal condition of our domestic animals. But so far as my observation has been directed to the above matter, I find better information of a positive nature, imparted to the people whose interest it is to look to the welfare of the horse; here and there a writer will call your attention to what form the animal should be in order to produce a viable progeny, whilst another will call attention to hereditary disease of the animal, all directed in the right channel but nothing of a positive nature, not "going at the root of the matter."

The writer of this don't propose to enlighten your readers, only so far as it may be the means of directing attention to the subject and lead abler minds to investigate.

It is known by a number of breeders of our domestic animals, that it is proper pairing of the respective sexes that renders them viable or unviable; it is also known to physiologists that their is a certain peculiarity of constitution the crasis or temperaments of man, but why or how this is so no human genius will know. But the condition and manifestation may be certainly known; now this condition or manifestation in man may be known by the temperament or temperamental compatability. bility. Now there is no doubt in my mind that this law of compatability or incompatibility obtains in the lower animals as in man and hence if there is a compatability of the respective sexes, their progeny will be viable, and on the other hand. if there is an incompatibility the progeny will be subjected to all the epidemics and epizootics in the land. Then there is too much forcing done by breeding incompatibles. We hardly ever see a diseased animal in a natural state, not so in domestic conditions. Why is this so? Because the law of procreation is not understood, or if so, not attended to. Nature never forces, art does. If you force incompatibility, degeneration is the consequence and death the result, but on the other hand if compatable with each other the progeny will be viable and give power to the constitution to throw off disease that they may be subject to.

For in all epidemics or epizootic every person or animal is liable to be influenced by the disease, and as all are not affected, then there must be a law that governs in the case, for there is nothing without law in Nature, and hence the above law of procreation governs, and it should be the aim of breeders of animals to determine the laws that govern in the selecting of the respective sex in procreation, so that the progeny may be viable.

It has been held by physiologists that it was requisite to a sound progeny that the progenitors should be sound, but in all cases this is not so, and here you see there would be an exception if it was a natural law, and hence is not true. But in the law of compatability there is no exception, and is the true law that governs the case.

So far as man is concerned it would be a great improvement in the course of years, if our public teachers would instruct the rising generation those great natural laws which govern in the selecting of partners for life, it would be the means of rendering a more viable race, and more happy, they would then know how to live as good citizens; it is the non-compliance of this law that has produced the degeneration of the greatest nations of which history gives an account. But Mr. Editor I will not say any more at this time. S.

The Railroads of the Golden State.

Their Wonderful Growth.—Their Length in Miles.—The Regions Tapped by Them.—Their Future Devlopment.

It has often been truly said, that there is nothing new under the sun; but to every rule there are exceptions, and moderns may boast exclusively of the four great instruments of civilization, the railroad, the steamship, the electric telegraph, and the printing press. The railroad in particular is the great civilizer; it performs now the same service that the rough and hardy pioneer did a hundred years ago. It penetrates the deepest forests, reaches the remotest wilds, crosses the most tremendous mountain chains, and bridges the broadest, swiftest and deepest rivers. Population and wealth follow in its train, the forest recedes before it, the plain smiles with waving grain, towns and cities spring up as if by enchantment, States are founded. Population used to precede it, now it follows. From the mountainous character of the Pacific coast, much of it would have been doomed to remain in a state of nature for another half century but for the railroad. But now the progress being made in covering it, particularly California, with a network of railroads, is fast fitting it as a home for the poverty-stricken and landless millions of Europe and the East. And over our roads in the future, the current of the world's commerce will flow. The

Growth of Our Railroad System

Though late, has been extremely rapid. It was six long years before the hardy forty-niners grew tired of mule teams, and began to think it was high time for them to be abreast of other communities in the matter of railroad communication, and fourteen before they seriously entered on the work of railroad building. Then, the excitement occasioned by the war of secession and by the fear that California might be invaded from Texas, or annexed by some country with which we might be at war, impressed on the nation the necessity of connecting San Francisco and New York, the East and the West, by the iron band of a railroad. Finding that they were about being brought into connection with the great centers of American civilization and commerce, our people took the hint, and began the construction of the Sacramento and Folsom line, their first railroad, in 1855 This was finished in 1856, at a cost of $1,100,000, and we had then 23 miles of railroad to boast of. A small beginning but one that was after some years followed vigorously and in a manner characteristic of California enterprise. The San Jose road, connecting with the beautiful city of the same name, was begun and finished in 1863, seven years after. And now may be said to have begun the period of railroad building in California. The project of building a grand trans-continental railroad had been mooted almost ever since the first rail was laid in the United States, but it was not till 1862, that a bill for its construction passed Congress. Immediately on the bills being passed, the builders of the road set to work with unwonted vigor For the first three years 20 miles a year were built, in 1866, 30 miles, in 1867, 46 miles and so on till it was finished on the 10th of May, 1869, when the glad tidings were flashed over the wires, that the golden spike, that was to unite the East and West, was driven. From the time of the beginning of the work on the Central Pacific, railroad enterprises sprang up on every side. All the great towns of the State were anxious to be connected with the trans-continental line and already San Francisco was looking forward to the practicability of building another trans continental line by the 32d or 35th parallels. The Western Pacific to connect San Francisco and San Jose with Sacramento, and this with the Central Pacific was chartered in 1862, but very little vigor was shown in its prosecution and it was not finished till September, 1869, a year and a half after it was begun, and four months after the completion of the Central Pacific. During the last three years, the following important railroads have been begun or have been pushed forward with vigor: The California and Oregon, the Northern Pacific, the Southern Pacific, and the San Joaquin Valley Railroad. The line from Los Angeles to San Pedro was finished in 1869. Our two greatest years of railroad building have been '69 and '70. During the former, we built 234 miles, and during the latter 223. In 1871 we only built 99 miles. In '63 we built 20 miles, in '64, 94 miles, in '65, 67 miles, in 66, 91 miles, in '67, 74 miles, and in '68, 85 miles. The

Existing Lines

Will make up when completed a grand total of 1,918½ miles in length. This shows that we are already acquiring the right to claim the reputation of being a railroad people. Yet, even a cursory examination of the map, will show how miserably inadequate our present system is, and what we have to do before we can afford to rest on our laurels, even for a short space of time. Three-fourths of California is as yet in a state of nature, not one-twentieth of the cultivable land is under cultivation, and as for our mines, we have hardly yet begun to know the extent of their riches. Hundreds of thousands of tons of ore that might be made to yield a profitable return, must be allowed to remain untilized for want of cheap methods of transportation to this city. And the farmer will not settle down on land remote from a market, or shut off by bare and inaccessible mountains from the outer world.

The Central Pacific,

Two hundred and seventy-six miles of which are in this State, is, whether considered in respect to the mighty energy employed in overcoming the obstacles both of nature and of lack of means, by its promoters, whether as a triumph of the highest exhibition of engineering skill afforded in our century, as evidenced by the rivers and chasms bridged, mountains tunnelled and almost perpendicular hights scaled, or whether regarded as one of the grand sections over which the commerce of the world must flow, is one of the greatest wonders of our age and time. Starting from Oakland it pursues its way through the centre of the richest mining, agricultural and vine growing regions perhaps in the world. Leaving Oakland and passing by Brooklyn, Alameda, San Leandro and Decoto in a most beautiful and fertile country, it ascends the Mount Diablo range and passes through the bowels of the mountains in the tunnel of Livermore Pass, emerging on the other side in the hills that skirt the San Joaquin Valley. From Niles about half way between Oakland and this pass is the junction of the branch line that coming from San Jose girdles the bay.

At Lathrop we come to the junction of the great arterial line of the centre of the San Joaquin Valley, and at Stockton to that of the Coyperopolis road, destined to skirt the whole of its western side. Crossing the 1,400 feet wide bridge over the Mokelumne, we arrive at the great inland railroad centre, Sacramento. Leaving this and crossing the comparatively level lands of the valley, and the pretty towns of Auburn and Colfax, the line enters the foothills of the Sierra Nevada, and soon climbs the mighty mountains themselves. Nothing for beauty, sublimity and terrific grandeur like the scenery from here to the borders of Nevada, is to be found in the world. The line climbs up and down hills and winds around them, spans terrific canons, and as in the case of Cape Horn, seems from the valley below to be almost suspended in the air from the summit of the mountains. A little beyond the great lumber depot of Truckee, it leaves the State. Over this line will pass the trade of China, Japan, India, Australia and the islands of the East, the commerce of half a world. The cost of building it was $91,378 per mile. In 1871 nearly half a million tons of freight passed over it and its income was nearly $10,000,000.

The California Pacific Railroad

Will be,—whether we consider the want of it, in conjunction with its branches, to supply a large extent of country, or the probability of a branch line from it being built to do the carrying-trade west of the Sacramento River,—one of the most important inland railroads in the State. Beginning at Vallejo and ending at Marysville, it passes through one of the richest agricultural districts in the State. Vallejo itself, an adjunct of San Francisco, must in the future become a great and important commercial, manufacturing and ship-building city. At present, through the California Pacific and its connecting lines, all the wheat of the western Sacramento Valley is poured into it. This road passes through one of the principal wheat-growing regions of the Coast—one of which is now one immense field of waving grain. Northeast from Vallejo this line leads by a tunnel through the Suscol grain-covered hills; then past the thriving town of Woodland, through Davisville,—a wheat-shipping centre,—and eventually crosses the Sacramento by a splendid bridge, 600 feet long. From Davisville to Marysville,—one of the most flourishing towns in the State,—its whole length is 95 miles. There is also a branch line 7 miles long connecting Vaca Station with Vacaville. At Marysville we find

The California and Oregon Railroad,

Which will reach from Roseville Station to Portland It is now being rapidly pushed on, so as to reach the latter city and secure the trade of Oregon for the Central Pacific before the Northern Pacific is finished and is able to compete with it, and will soon be on the borders of Oregon. It will then have a length within California of two hundred miles. The section which it traverses is as fertile as any in the State, and its upper part, which comprises the counties of Shasta and Siskiyou, possesses, on its mountains, inexhaustible forests, the produce of which will at no distant day, when carried down by rail to San Francisco and shipped thence by sea, supply all parts of the world with lumber. The railway will, too, open up the numerous and fertile valleys to be found in Northen California and Southern Oregon to the agriculturist, and conduce to their speedy settlement. This line passes, after leaving Marysville, through Chico, Tehama and Red Bluff, by Shasta and Yreka, to the borders of Oregon. Probably the most important of the internal lines is

The San Joaquin Valley Road,

Now completed to a short distance beyond Visalia, and which is 167 miles long—the largest road yet built in California. The valley is in parts 140 miles wide, and contains over six millions of acres of rich agricultural lands. Besides these, there is a vast extent of as yet unreclaimed rule lands, and the hilly and mountainous country bordering is capable of sustaining millions of sheep and cattle and of growing fruit and wine enough to supply all America. The whole western side of the San Joaquin Valley for more than one hundred miles, is now one vast wheat field, and it has been estimated that it would take four trains a day, of twenty cars each, to bring all the grain to market. And this is nothing to what it will be in another year or two. Cotton, sugar, hemp and rice will be reckoned amongst the products of this valley, which will find an outlet over one or other of the many projected lines. The present one passes within six miles of Visalia, leaving that town to a certain extent out in the cold. But already are the Visalians bestirring themselves to take revenge, and inviting the approach of competing lines.

The North Pacific and Humboldt Railroad

Opens up the greatest lumber region of the Coast. Beginning at Donahue, it passes through Sonoma Mendocino and Humboldt counties ending at Humboldt, a distance of about 300 miles from the starting point. It brings Petaluma, Santa Rosa, Healdsburgh, Ukiah and Eureka, the centre of the lumber region of Humboldt and Del Norte counties, into quick and easy communication with this city, facilitating settlement, particularly in Russian River Valley, and has increased the value of the lands on the route, in some instances, as much as fifty per cent. Those mountains that skirt the Coast are covered with magnificent forests, which will for another half century supply the manufacturing needs of San Francisco and the ship building ones of Vallejo. The scenery of the Coast range and Coast valleys along the route is of the most picturesque description. The road has been opened to Cloverdale, 56 miles from Donahue; and the track is being laid down beyond that town with the utmost expedition. The first part of the line has cost $13,000 per mile.

The Southern Pacific,

Intended to connect with the Texas or Atlantic and Pacific Roads has been finished as far as Hollister, 94 miles from this city, connecting by a branch line with Pajaro, and about to be connected by another with Santa Cruz. It passes through the beautiful and fertile valley of Santa Clara, connecting with San Francisco, San Jose, one of the largest cities in the State, Gilroy the center of what promises to be an important tobacco growing district, and Hollister one of the most thriving towns in the southern section. Crossing the Mt. Diablo range probably through Pacheco Pass, it is proposed to run it in a southeasterly direction through the lower San Joaquin Valley, approaching the San Joaquin River at Firebaugh's Ferry, then near Fresno City and north of the Tulare Lake to a point 20 miles below Visalia, then southward to Tejon, and through the range bounding the San Joaquin Valley to the South Tehatchapah Pass, thence nearly on the line of the 35th parallel to a point on the Colorado south of Fort Mohave, there forming a junction with the Texas Pacific. Twenty miles of it have already been built opposite Visalia beginning at Goshen.

Other Lines

Already built, but not of such importance as the foregoing, form the outlets to fertile and well cultivated districts, or necessary connections between other lines. They are, the Napa Valley Railroad starting from the California Pacific at a point seven miles northeast of Vallejo, and following the beautiful and tertile valley of the same name to Calistoga, 34 miles long; the San Rafael and San Quentin Road, connecting the two towns, 4 miles long; the Marysville and Oroville Road, 26 miles long; the Sacramento Valley Railroad, connecting Sacramento and Folsom, and Folsom and Shingle Springs, passing to within 12 miles of Placerville, 49 miles long; the Stockton and Copperopolis Railroad conveying the product of the valuable copper mines of that section, to the Central Pacific line, and thence to this city, finished to Milton eleven miles from Copperopolis, and 30 miles long; the connecting line between Niles Station and San Jose, 12 miles long; the Los Angeles and San Pedro line 22 miles in length, connecting the future capital of the south with its port; the branch line from Gilroy to Salinas, 34 miles in length; the San Pablo and Tulare Railroad graded from near Antioch to Bantas, 50 miles long; two roads each seven miles in length from Nortonville and Summerfield to New York and Pittsburg on the Sacramento, bringing down the coal of Mount Diablo; the Alameda and Haywards line 17 miles; a short line from Sacramento to Freeport; the first section of the Stockton and Visalia railroad, which will run from Peters by Cotton Ferry to Visalia, now finished to Oakdale, a distance of 19 miles; and a line beginning 3½ miles west of Banta Station on the Central Pacific, intended to run down the western side of the San Joaquin Valley. The total length of all the lines which we have noticed in this article, is at present 1,131½ miles, when completed it will be 2,058½ miles. Besides there are numerous

Projected Lines,

And one, the Texas Pacific, which entering the State near its southern boundary on the Colorado River, will terminate in San Diego, opening up an immense extent of agricultural and mining country in Arizona and Southern California. Of the projected roads the most important to the State, and to our citizens generally is the Atlantic and Pacific from this city to St. Louis, 2,000 miles long, 300 miles of which runs through what will be in the future one of the richest parts of the State, which will not be effected by snow blockades. It is proposed to run it southerly along the coast to San Buenaventura, and thence by a route passing through Los Angeles and San Bernardino, to a point below Fort Mohave on the Colorado. Other projected roads are a coast road from San Francisco to San Diego, the North Pacific Coast Railroad from San Rafael to the Walhalla River; the California and Pacific extension to Red Bluff; the connecting line between the California and Pacific and Sancelito; the Bay shore line from Antioch to Oakland; the Sacramento Valley Railroad extension to Placer; the Copperopolis and Visalia Railroad; the Antioch and Visalia Railroad; a line from Visalia to Owens River; the extension of the San Pedro and Los Angeles road to San Bernardino, and south into Arizona; a line connecting Visalia and Los Angeles, another connecting San Diego and San Bernardino; and one from San Francisco by Sancelito, through Mendocino and Humboldt counties to Humboldt Bay, with branches leading into Napa and Sonoma counties, etc. The total length of these various lines would be upwards of 1,950 miles. The

Railroad Future of California

Is most brilliant. We may predict that within the next decade there will be 4,000 miles in operation, and thus every part of our State with its magnificent resources, will be brought within easy reach of a profitable market, and thus afford inducements for the settlement of tens of thousands, who have hitherto been debarred seeking their fortunes by the broad waters of the Pacific. And the immense trade that will center in San Francisco from both the East and West, and in San Diego from Mexico, Arizona, Colorado and Texas will be something which is even now undreamt of.

Useful Information.

The Primary Colors.

If we look steadily for a considerable time upon a spot of any given color, placed on a white or black ground, it will appear surrounded hy a border of another color. And this color will uniformly be found to he that which makes up the harmonic triad of red, yellow and hlue; for if the spot he red, the border will he green, which is composed of blue and yellow; if blue; the border will be orange, composed of yellow and red; and if yellow, the border will he purple, making in all cases a triunity of the three primary colors.

With a view to throw such a light upon the subj-ct as my limited opportunities would permit, I tried over the experiments by which Sir Isaac Newton came to the couclusion that there were seven primary elements iu the solar spectrum, and the same results occurred: I could not separate any one of the colors of which it seemed composed, into two. The imperceptible manner iu which the colors were bleuded together upon the spectrum, however, and the circumstance of the colors which practical people called compound, being always found hetween the two of which they understood it to be composed, together with my previous conviction induced me to continue my experiments; aud although I could not, by analysis, prove that there were only three colors, I succeeded iu proving to my own satisfaction, syuthetically, in the following manner:

After having tried every color in succession, and finding that noue of them could he separated into two, I next made a hole in the first screen, in the center of the blue of the spectrum, and another in that of red. I had thereby a spot of each of these colors upon a second screen. I then, by means of another prism directed the hlue spot to the same part of the second screen on which the red appeared, where they united aud produced a violet as pure aud intense as that upon the spectrum. I did the same with the blue and yellow, and produced the prismatic green; as also with the red and yellow, and orange was the result. I tried, in the same manner, to mix a simple with what I thought a compound color, but they did uot unite; for no sooner was the red spot thrown upon the green than it disappeared.—*Hay's Interior Decorator.*

A Velocipede Race.—A fifty mile race on bicycle velocipedes recently took place at Wolverhampton, Eng., hetween two experienced riders, Moore and Johnson. Moore, the smaller man of the two, agreed to allow his opponent an advantage of two miles in the fifty. The first fourteen miles were run in 59 minutes aud 23 seconds, the advantage being in favor of Moore. At the end of the twentieth mile the race seemed to be over, as Johnson was evidently suffering from having repeatedly to force his high wheel with short crank up hill against the wind. Moore, on the other hand, with small wheel and long crank, had no difficulty in making the asceut. On the twenty-seventh mile Moore passed Johnson for the sixth time, who could scarcely now move his vehicle up the short hill, and, on the twenty-eight mile, Johnson gave up the race Moore finished the remainder alone, making the fifty miles in three hours 56 minutes and 40 seconds, and running the last mile quite as quickly as the first.

The above practical trial appears to show an advantage in the small wheel and long crank over a large wheel aud short crank in velocipede driving.

Foaming in Boilers.—The *Scientific American,* in reply to the queries of a correspondent, "What causes foaming in an engine boiler? Is it dangerous or apt to cause an explosion of boiler? Does steam ever descend under the water in a boiler aud force the water up and then take its place?" answers as follows:—"Foaming is caused by the generation of steam more rapidly than it can discharge itself from the mass of water within which it is formed It may give rise to inconvenience, aud even danger, either by carrying water out of the boiler more rapidly than the feed pump can replace it, or by entering the steam cyliuder of the engine and creating a liability to accident, when the pistou strikes upon it, at the end of its stroke, by breaking crank pin, connecting rod or cylinder head. Steam does not get under the water but is sometimes so rapidly disengaged, at points on the heating surface under water, as to almost or quite displace the water.

For Lubricating.—It is stated that a preparation, consisting of one part sulphur to twenty parts of refined colza oil, after undergoing a heat of from 130 to 140 deg. for an hour, furnishes an excellent lubricating material for machinery. The sulphur, being a poor conductor of heat, is thought to assist to a considerable degree in preventing heat from friction.

To Remove Nitric Acid Fumes.—Whenever nitric acid pollutes the air by its vapors, as in sundry branches of industry, all injurious consequences may be obviated by the free use of ammonia. The vapor of the latter, combining with that of the nitric acid, forms a compound which is inodorous and innocuous.

Change the Law of Process.

Reader, did you ever reflect that all you can do in the physical, mental or moral world is simply to direct pre-existing forces to accomplish change?

To illustrate this proposition, let us follow the history of any article of common use, say the shoes on your feet.

Long ago, in the pre-historic ages, the manufacture of those shoes was begun, and only through ages of progress and infinite change have they been wrought. In the time when "the earth was without form and void," volcanic forces were at work upheaving, degrading, plowing miles deep to prepare a soil for the growth of nutritious plants to support animal life. Then, through slow successive stages, animals and men appeared.

Then followed that curious round of intrlcate and, as yet, very dimly comprehended processes, whereby crude inert matter is converted first into coarse organic forms of life, and through these into such finely organized, complicated structures as the skin of a mammal.

The tanner takes such a skin, and, by directing chemical affinity in his vats and other physical forces in subsequent operations, transforms it into leather. Then the shoemaker follows, directing, by his skill, muscular power and the operation of machines. At last appears the finished fabric, to subserve the comfort of man.

In this simple illustration is obtained a glimpse of the vastness of all cycles of change, only through which can their he any progress, even in little things.

How much more, then, ye impatient for the time to come, must mental and moral progress be slow; sometimes so slow that the onward march seems stopped, or, perhaps, to retrograde? But this is only the view of cursory observers. When the foundations of society are shaken by war, by the abandonment of long-established usage, when almost anarchy prevails, people are often wont to become pessimists, and to exclaim that the world is getting worse instead of better. But all these disturbances are but the settling of the moral crust of society. By and by the disruptive forces will have expended themselves, and the sides of the chasms shall he transformed into gentle slopes blossoming with verdure, and the mountain peaks shall stand never more to be shaken, only we must wait.—*American Artisan.*

Newspapers.—More copies of newspapers are printed in a year in the United States than in all the rest of the world together. England and France come next, and the two together have half as many as the Yankee Nation. Asia, Africa and European Turkey, according to "Hudson's New History of the Newspaper Press," together do not publish so many newspapers and periodicals as San Francisco alone. We imagine, however, that his information about Asia must be incorrect, for there is considerable intellectual activity among the Hindoos. It cannot be denied that in this great branch of progress, the Americans have taken the lead in a most remarkable manner.

How to Insert Screws in Plaster Walls.—It often becomes desirable to insert screws in plaster walls, without attaching them to any woodwork; but when we turn them in the plaster gives way and our effort is vain. And yet a screw may he inserted in plaster so as to hold light pictures, etc., very firmly. The best plan is to enlarge the hole to about twice the diameter of the screw, fill it with plaster of Paris, such as is used for fastening the tops of lamps, etc., and bed the screw in the soft plaster. When the plaster has set, the screw will he held very strongly.

Setting Tires.—A mechanic gives the following method of so putting tires on wagon wheels, that they will not get loose and require resetting. Use a long cast iron pan or dish made for the purpose; linseed oil is brought to a boiling heat, the wheels is placed on a stick over the dish, so as to hang in the oil, each felloe an hour. The timber should be dry, as green timber will not take the oil.

Cement for Leather.—Ten parts of carbon bisulphide and one part of oil of turpentine are mixed, and as much gutta percha added as will readily dissolve. The surface of leather must be freed, with a hot iron, from fat. and the parts once joined should be well pressed until they are firmly united.

Linseed Oil.—A patent has been taken out by a party in England for treating linseed and other seed and vegetable oils so as to give to them all the advantages derived from boiling without having recourse to that process, and to retain other properties unimpaired which boiling destroys.

Zinc Whitewash.—Mix oxide of zinc with common size and apply it with a brush, like lime whitewash, to the ceiling of a room. After this apply in the same manner a wash of the chloride of zinc, which will combine with the oxide, and form a smooth cement with a shining surface.

By Rail from Mexico.—A correspondent of the Germantown *Telegraph* remarks that before the Centennial celebration can take place we shall have trains running straight through from the city of Mexico to Philadelphia.

Paper money which cannot be counterfeited is said to have been invented by a Berlin lithographer.

Good Health.

Process of Digestion.

Digestion is the process hy which food is prepared for conversion into living blood. This conversion of dead matter into living substance is the greatest and most mysterious power of Nature; yet it is effected by agencies so very delicate that our nicest chemistry fails to detect even so many active elements as it finds in a Homeopathic pellet of aconite or belladonna. The gastric juice, which produces this miracle of transformation, is almost tasteless, and it has no pungency whatever. It certainly affords an example of how very small a dose of the appropriate element is capable of making the most fatal changes in the living process of the human body.

It is not bulk nor mechanical consistency that determines the digestibility of food; nor can the law for one stomach be treated as the law for all. The gastric juice is, no doubt, prepared in every stomach of such variety as to take up the food elements required by the existing conditions of the bodily organs, and to reject such elements as are not wanted. Hence, "what is one man's meat is another's poison." General directions as to what should be eaten are like the usual conglomorate pill of the quack, designated for all cases, and useful in none.

Generation is a congressional act, in which every organ of the body is represented. Hence, parent peculiarities are transmissible, and delicate stomachs, torpid livers, and the like, pass from generation to generation. No doubt digestion is also a congressional act, the gastric juice being a contribution representing the wants of each organ in the body. It is not, then, the bulk one eats, but the kind of food, which, according as it responds to those wants, sits easily on the stomach and gives good digestion. Dyspepsia is the error of injudicious supplies. Theory avails nothing, and general dietic rules are mockery. Every man must, by experiment, determine for himself.

Some change of food is imperative. Tea, coffee, cabbage, hot bread, the wheaten loaf, pan-cooked pork, salt meat, pastry, etc., may be retired in turn. Rum and tobacco must not go unchallenged; and all private indulgences may be moderated in the experiment. Three meals a day inflict twelve hours' labor on the stomach. Dyspepsia is, perhaps, its mode of striking for eight hours' work, or two meals a day; and its promise may be honest that it will digest as much nourishment for you in eight hours as in twelve, and do it to the greatest profit of the whole body corporate. Don't refuse it a hearing, but give it a fair trial, with reasonable hopes of the restoration of health and harmony.

Listen to no man who proclaims this wholesome, and that not, unless the counsel come from a physician who can give reasons for his advice. Distrust him who tells you to avoid hard and to eat soft-boiled eggs, because the one is hard to digest and the other easy, and to abhor cheese as indigestible altogether. Dr. Leube, of Erlangen, has thoroughly tested the gastric juice of many stomachs, and he finds ripe cheese more digestible than eggs in any form, and well-boiled eggs are better than soft ones.

We would prescribe good nature as an essential element in the cure of dyspepsia. But we know that, with such sickness (as Burns says):

> "'Tis hardly in a Body's power
> To keep at times frae feeling dour."

Labor, then, to right the body, and the body will right the mind. By a process analogous to the conversion of dead matter into living tissue, it seems as though the living body finds the elements for its mental manifestations; for good nature is the product of a healthful balance among the co-working organs of the body. It is also a peculiar function of Homeopathic medicines to adjust, with the least disturbance, the delicate balance upon which hang the issues of health in the body and sanity of the mind. *Ex.*

A New Idea in Baths.—A correspondent of one of the English medical journals has taken a sand-bath, and this is his description of the process:

The patient is introduced into a warm, comfortable room, in which is a bath, fenced round with curtains, filled with sand heated to about 100° to 120°. In this a longitudinal groove (I will not say grave) is scooped to receive the patient, who is wrapped in a sheet, and so protected from contact with the sand. There is a comfortable pillow for the head. Then the bath operator gradually covers up feet, legs, arms and trunk with the warm sand. A bucket of hotter and one of cooler sand are at hand, so that the temperature can be adjusted with the greatest nicety. The feeling of warmth is very agreeable, and the weight of the sand is just enough to cause a pleasant sense of compression and support. After an hour's delightful repose, the patient rises, is refreshed by a sluicing of hot water, and goes away refreshed.

The effect is very different from that of hot water, and still more from that of hot air or steam. There was absolutely no commotion of the heart, nor any of the grilling effect on the windpipe which I have experienced in other baths. Altogether, it seems a good thing when we want to produce measured perspiration and relieve congestion of the internal organs.

A New Febrifuge.—The *Constitutional* announces the discovery of a new febrifuge, which has been found an excellent substitute for quinine. As the latter is very costly—too much so for the purses of workmen and peasantry who are so frequently the victims of fever—it will be a general boon if the new drug, which is said to possess all the properties of quinine, and which will cost very little, can be brought into use among the public. M. G. Doray, an apothecary in Saint-Lo, it seems, remembering the good effects in certain fevers of bitter aromatics, as, for example, camphor, conceived the idea of trying the action of the laurel, the leaves of which are at once bitter and aromatic. The experiments were conclusive as to its powers, for according to statements made to the Academy of Science and the Academy of Medicine, three grammes of powdered laurel leaves suffice to work a cure. All the fevers treated by the new drug have given way (it is said) in a few days, and it has even been successful in an African fever of long standing, against which sulphate of quinine has proved powerless. The laurel is common in France, and produces no bad effects, so that if its use were general the French would no longer depend on the New World for quinine. Intermittent fevers are very common in France, so that if the medical profession should adopt the new febrifuge after fully testing its properties, it will prove an immense advantage to the population. The green leaves of the laurel *(Laurus nobilis)* are dried by a gentle heat on the fire in a close vessel, to prevent the loss of the volatile elements, and are afterwards reduced to a fine powder, one gramme of which in a glass of cold water may be taken as a dose. The effects of so simple a drug may at least be easily tested.

Fat and Lean.—Meat eaters and vegetarians show in their persons the effects of the diet. The first has the most brain force and nervous energy. A mixed food of animal and vegetable rations developes the highest intellectual powers. A strictly vegetable living ordinarily gives a fair complexion, and amiability and extreme pugnacity when the vegetarian's views in regard to that one engrossing thought of his life are discussed. They are annual-meeting reformers, without ever setting a river on fire. Arabs are a sober, frugal race, rather slender, not tall, conscientious and contentious on religious subjects. They largely subsist on rice, pulse, milk and keimac, something similar to whipped cream, through a vast region of an arid country where they are indigenous. They are not destitute of mutton, goats, camels and game; but they manifest no disposition to feed upon meats, as is necessary in temperate zones or in high northern latitudes. An intellectual man, one of their kindred, who rises to distinction by the grandeur of his mental status, is extremely rare. The beer and ale drinkers expand and grow fat, but they are not much given to profound researches in science.

Dietetic Hints.—Most chronic diseases, and many acute ones, are produced at the table. As a rule, no fluid of any kind should be taken at the table, especially if the stomach is weak. The stomach should never be overloaded; not more than two or three articles should be taken at one meal; no stimulants used before eating; tobacco arrests digestion. Milk is the best diet for infants and children. Tomatoes with cream and sugar are healthy and nutritious. Bread and butter is the staff of life, and easily digested. Too much salt irritates the stomach. Colds are frequently produced by drinking hot tea and exposure afterwards. Late suppers induce heart disease. Pastry and cake constipate the bowels. Boiled potatoes are not so healthy as baked ones. Fruits are to be eaten at breakfast and dinner. The stomach requires much rest to be healthy; purgative medicines weaken the bowels. Cheerful conversation promotes digestion; and anger prevents it.

Color-Blindness.—An instrument has been invented in Germany for testing color-blindness. It consists of a rotating apparatus, which moves a disk whose center is a circle, one half black and the other white; outside of this is a ring of violet and red, then the outside ring of violet and green. When rapidly rotated, the centre appears to be colored grey, that is white and black mixed. To a *green*-blind person the middle ring will appear grey, that being the result to him of a mixture of violet and red. The outer ring will appear grey to the *red*-blind patient, and the inner grey to the *violet*-blind. By the use of this instrument, a large number of patients may be simultaneously examined for one or more kinds of color-blindness.

Breathing Foul Air.—When breathing air that is dirty, ill-smelling, or otherwise impure, the breath should be drawn in slowly through the nostrils—never through the mouth. In this way the dust and other impurities are mostly lodged in the passages of the nostrils, from which it is readily expelled, and kept from the lungs. People ought always to breathe through the nostrils. A person's life is, in almost all cases, thereby greatly lengthened

Sour Stomach.—Alkali is used in Allopathy to correct acidity of the stomach; but Homopathy corrects it better by small doses of lemon-juice. "I have known many persons," says Dr. Dio Lewis, "who had long suffered from heart-burn or water-brash, cure themselves by a few drops of lemon-juice after a meal."

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SAN FRANCISCO:

Saturday, March 1, 1873.

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THE TRICKS OF THE TELEGRAPH.—Tuesday's meeting at the Produce Exchange has thoroughly vindicated the position taken by the RURAL PRESS, last year on the wheat quotations, and has shown conclusively that producers have suffered by the unreliability of the telegraphic quotations of wheat in Liverpool. A comparison of the circulars of those interested in the Liverpool grain trade with the telegraphic rates showed that the latter were uniformly 4 cents below the real ones and sometimes much more. But these circulars themselves differ so much that they can be considered of little authority. The *Mark Lane Express* is the only journal that gives correct accounts of the grain markets of England, and this shows discrepancies of from four to twenty cents. But supposing for a moment that the circulars were not open to exception, it is evident that at 4 cents per cental, our farmers have lost $400,000 on this year's wheat export. Who has been benefited? And why, in the face of that fact, did the Produce Exchange decline uniting with New York and Baltimore in obtaining full and reliable market reports?

HER FIRST CALL.—The monotony of our editorial labors was last week broken in upon, by the enlivening presence of Mrs. Mary Jane Locke, better known to a large number of Pacific coast readers, as "Mary Mountain," and whose sparkling productions have so frequently appeared in the Home Circle department of the RURAL PRESS. We are glad to learn from her own lips, of her improving health, and we hope that her stay in this city and her visit to and among her friends at the north, will be the cause of her again including among her pleasurable pursuits, that of wielding the pen in the execution of word paintings inculcating sound morality and good sense, for the columns of the RURAL.

ON FILE.—J. H., Cor. Sec.; A. G. S., Nord, Butte Co.; R. E. W., La Conner, W. T.; S. L., Morro, San Lonis Obispo; J. M. D., Sec.; Letter from Nevada City.

Cut-Worms.

A correspondent, J. Z., of Haywards, Alameda county, asks how to destroy cut-worms. There are several varieties of insects, that in different parts of the country are known as, or are called cut-worms. Thus the White grub, or larva of the common May beetle and the different species of wire-worms, and the larva of Click beetles are all called cut-worms in some part or other of the United States. But that kind of caterpillar which has the habit of hiding just under the surface of the earth during the day, and feeding either on the roots, stems and leaves of plants during the night, is the one usually known by gardeners as the cut-worm.

Their destructive habit consists of cutting or entirely severing the plant on which they feed, just above or just a little below the surface of the ground, and on this account have they received the name of cut-worms. From this habit of cutting, they prove a far greater nuisance than if they were to satisfy their appetites in an honest manner. In the latter case we might feel like letting them go their way in peace, but as with the Baltimore Oriole, which abrades and ruins a hundred grapes where it would require one for food, we feel vexed at such wanton destruction of our products, and would gladly rid ourselves of such nuisances.

Surface Caterpillars.

This species of cut-worm has long been known in Europe as the Surface caterpillar, in distinction from another known as the Climbing cut-worm, a very destructive insect in gardens and orchards, and which may come under our notice in a future number. Among the surface cut-worms, there seems to be several varieties, but all of the same habit of working and all of them are smooth, naked and greasy looking worms of some shade of green, gray, brown or black, with a polished, scaly head, and all have the habit of curling up in a ball when disturbed.

Their Natural History.

C. V. Riley, State Entomologist of Missouri in 1869, says:

"The natural history of most of these cut-worms may be thus briefly given. The parent moth attaches her eggs to some substance near the ground, or deposits them on plants, mostly during the latter part of summer, though occasionally in the spring of the year. Those which are deposited during late summer, hatch early in the fall, and the young worms, crawling into the ground feed upon the tender roots and shoots of herbaceous plants. At this time of the year, the worms being small and their food plentiful, the damage they do is seldom noticed. On the approach of winter they are usually about two-thirds grown, when they descend deeper into the ground, and, curling themselves up, remain in a torpid state till the following spring. When spring returns, they are quite ravenous, and their cutting propensities having fully developed, they ascend to the surface and attack the first green succulent vegetation that comes in their way. When once full grown they descend deeper into the earth, and form for themselves oval chambers, in which they change to chrysalids. In this state they remain from two to four weeks, and finally come forth as moths, during the months of June, July and August. These moths in time lay eggs, and their progeny goes through the same cycle of changes. Some species, however, are most likely two-brooded, while others pass through the winter in the chrysalis state.

Remedies for Cut-Worms.

There are certain natural remedies for the cut-worm; numerous varieties of beetles prey upon cut-worms, and early birds catch great numbers where such birds are numerous: next to these young poultry, and particularly chickens hurried out of their movable coops by daylight in the morning. Of artificial remedies, the principal ones are those in which some kind of application of a substance supposed to be offensive to the worm is applied to the surface of the ground around the plants.

In the first Annual Report of the State Entomologists of Missouri, by Chas. V. Riley, in 1869, he says:

"For the common field cut-worms, I am convinced that there is no better remedy, as a rule, than hunting and killing them. It is generally believed that ashes and lime used about plants will keep off cut-worms, and I might fill pages with recorded experiments, going to prove the good effects of these substances.

The experimenters generally forget, however, that there is a period in the life of these worms, when they of themselves go down in the earth and disappear, and anything applied just before this happens is sure to be heralded forth as a perfect remedy. Experiments show however, that when placed in a box with separate quantities of ashes, salt, lime and mold, they will burrow and hide in all of them, but especially in the ashes and mold.

Soot seems to be more obnoxious to them and although I have not had the opportunity of giving it a thorough test, I would not discourage its trial. In corn fields that have been subject to the attacks of cut-worms, it is well to plant so much seed as will enable to glut their appetites without taking all the stalks in the hill, and in this light the following lines contain a deal of wisdom:

"One for the black-bird and one for the crow,
Two for the cut-worm and three to grow."

RANCHES FOR SALE.—Mr. P. Arnold, whose Post Office address is Denverton, Solano county, offers 1,700 acres of land for sale at from $15 to $50 per acre. He is anxious to sell to change his place of residence. Another subscriber has 617 acres of land near Petaluma, and also a flock of 250 sheep. Terms only half cash down. Mr. Kelly Tighe, at the Brooklyn Hotel, Petaluma, will conduct parties who wish to see the property.

HORTICULTURE.

Culture of the Verbena.

To grow Verbenas well it requires a good bed in the right place. But it should be where there is plenty of sunshine, as they will not succeed in the shade. Any good, sufficiently deep, rich and friable soil will grow them. A lawn too is a fine place for them. Cut out a round bed, or any other shape desirable, on a lawn or grass-plat; invert the sods and place them in the bottom of the bed; put six or eight inches of good soil on the surface; set a good plant of double Zinnia, or a Geranium in the centre. Buy or beg a dozen or more of good, strong growing plants, not high-spindling affairs (particularly if you have to buy them); set them two feet apart in the bed. If they are pot plants, set them so that the bottom of the Verbena will be six inches deep. If the plant is branching as it should be, bend off the branches in a slanting position, and fill in the center with soil nearly to the surface; water freely to settle the soil around the roots; and then fill up the space with dry soil to prevent baking. Peg down the plants as they spread, and keep the soil well cultivated and of course free from weeds. You will then have a fine bed of Verbenas. If you should want to grow good seedlings, get good plants to begin with. The best Verbenas produce the best seed, especially the scented and red colors, just as the best peaches do, but you cannot entirely rely on either. The probability is you will be satisfied with the finest that have been already raised, without troubling yourself about your own seedlings. This is more the province of the professional florist. When you are tired of your Verbenas or they should perish, or grow too rusty and black, you can spade them in, and this process will enrich the soil sufficiently, especially if done yearly. The plants that have blue, purple and white colors have the most seed, and the flowers of most of them are sweet scented. A few years past a fragrant Verbena was a novelty. We have now quite a variety of them. Gather your seeds early in the morning when the dew is on, or after a shower. Do not use heating manure, as it will make the plants rusty-black. The bright and showy flowers of the Verbena, make it the most popular bedding plant in cultivation. We here give the names of a few of the best:—Verbena Hybrida, auricular flowered, New-Striped Italian, Pure Blue, Pure Scarlet, Montana, Blue Bonnet, Gail Hamilton, President, Queen of Stripes, King of Scarlets, Grand Victor, King of Purples, Snow Flake, Scarlet Circle, with endless others, old and new.

Pleasant Homes.

When we have traveled through some of our valleys, we have noticed a most striking contrast between those which have farmers' homes in them almost entirely bare of any kind of trees or plants around them, and those where the occupiers have planted fruit trees, shrubbery, evergreens and flowers. There is hardly anything that causes so much regret in us in our travels as the almost entire want of home embellishments in some places, as in the majority in the Sacramento and San Joaquin valleys; while generally in the Napa and Sonoma, we have been perfectly enchanted with the farm houses there ornamented with shrubs, vines and climbers, lawns, evergreens and shade trees. There is nothing in nature so refining to man as to be surrounded at home with these beauties, most of which are in the reach of everyone who is able to own real estate. If a farmer, or even a mechanic or laborer who owns houses and lots, should devote an acre of land or less, to grass plats, lawns, and pleasure grounds judiciously but rather sparingly planted with evergreens, interspersed with a few cherries, Siberian Crabs, or deciduous ornamental trees, and also a few flowering shrubs and climbing vines, such a piece of ground would soon be worth any other 10 acres of the farm, and so in proportion to other lots.

Children all love flowers and beautiful shrubbery, and above all they love an ornamental grass plat or lawn for a play ground, where toil and labor can be sometimes dismissed, and recreation and true enjoyment drawn in their full. It requires little to induce children to learn to decorate a home. Give them the opportunity, and with but little outlay, they will soon increase the value of that acre one hundred fold. When shrubbery and evergreens are once planted they will need good culture for a few years, and after they get a good start, the plat may be laid into grass, and with watering in summer, if possible, soon a beautiful grass plat and shady lawn will bless the entire household for all their labor and expense.

The Mayduke Cherry.

It is a little singular, that nearly all pomological writers refer to the Mayduke as a standard for the time of maturity in cherries. The ripening of an early cherry is indicated by comparing it with the Mayduke, or it is a given number of days earlier or later than this well known variety

Now it happens that the Mayduke is the most variable in its season of maturity of all known cherries. Fruit of a dark red color is often seen on one branch, and that which is nearly green on another. It is thus not uncommon that there is a difference of four or more weeks on the same tree. The same difference may occur on different trees, one tree being some four to six weeks ahead of another. Hence serious disappointment sometimes results where trees of this variety are purchased and come into bearing, from the frequent lateness in ripening; and cultivators, supposing they have received a very early variety, often consider themselves as having been grievously imposed upon—sometimes two cherries which grow on the same branch, and within two or three inches of each other, are seen, one a dark red, while the smaller is a light green.

The inappropriateness of taking this variety as a standard for time is further increased by the fact that it is scarcely ever picked from the tree in a fully ripened state, but most commonly while it is yet only of a dark red color, instead of nearly black, as it should be; and before it has attained more than two-thirds of its full size. We have known even some cultivators of fine fruit to have been astonished on tasting fully ripened specimens, at the difference between such specimens and those picked at the usual season.

The Holman's Duke, Jeffrey's Duke, and Late Duke of most gardens, are all so similar to Mayduke, that one description will nearly suit all. They are only sub-varieties, and the Late Duke probably obtained by propagating from late ripening branches of Mayduke. Fruit of the Mayduke and indeed of all the varieties, are of a roundish obtuse heart shape, red at first, becoming, when fully ripe, a dark purplish red; flesh, reddish, tender, juicy, sub-acid. Ripe from last of April to middle of June. Mr. Thompson, of Suscol orchards, who raises fine crops of cherries, informs us that it ripens more regularly with him than in the East.

Currant Blight and Worm.

Our attention has been called to a subject of lively interest to currant growers, by Mr. E. W. Garvitt, of Alameda. His observations go to show that many of the currant bushes of Oakland, Alameda and other places around the Bay that have hitherto produced fine crops of fruit, are found to be stricken with what appears to be a kind of blight accompanied by the presence of a scale insect or parasite in countless numbers. Bushes thus affected are seen to be budless, and looking like dried sticks, standing in the midst of younger shoots that seem to be but little affected.

An examination with the knife, at almost any point along one of the affected shoots, reveals the presence of a white grub or worm, from half an inch to an inch in length occupying the cavity of the pith or center of the stalk and eating its way at a lively rate along the same. This sufficiently accounts for the destruction of that part of the bush, whilst the smaller insect or scale louse, seems to be but secondary or incidental, and not the cause of the blight.

The part of the wood affected is in most instances that which is two or more years old and not the growth of last year. The eggs from which the worms are hatched are evidently deposited directly in or under the buds, and the young worm eating the bud then makes its way directly into the body of the twig, utterly destroying it for fruiting purposes, in fact kills it outright. By examining the bushes at this time, it is easy to see and know which are the shoots affected, from what has been stated of their appearance.

Remedy.

No time should be lost in making careful examination of all currant bushes, and every part found to be affected should be immediately cut away and carefully burned. In this way vast numbers of the worms can be destroyed and their increase materially lessened. As a preventive to a great extent, all the old wood, or that more than two years old, should be cut away every year, leaving only the young and vigorous shoots to bear fruit. In this way the ravages of the insect can be greatly lessened, and the fruit increased in size and quality.

A SILK COMPANY FORMED.—A corporation, called the San Francisco Sericultural Association, has been formed in this city, with a capital stock of $400,000. The objects are: raising silk worm eggs and raising and reeling raw silk in the counties of Sonoma, Napa, Alameda and Los Angeles. The Trustees are Romulus Bonhommo, Seixas Solomon, Julius Jacobs, A. J. Godchaux and E. Brown.

Poultry Notes.

Practical Poultry Growing.

Eds. Press:—Letters, showing that the Press is read and valued, come to me from remote places in Califoruia, of even the names of which I have hitherto been ignorant. I repeat that I am ready to answer any questions concerning poultry to the best of my ability; but, when I state that I yesterday received nine letters, correspondents will see the necessity of enclosing a stamped envelope. Many will find their questions answered in these articles, as I have given up the idea of a regular series, believing that I will do better by writing about what your readers suggest in their letters.

The most frequent question is, where can I buy good and pure fowls or eggs. I believe that very many farmers are sold very inferior stock, especially when they purchase eggs. My first venture in the Brahma line was to bear proudly home two pair raised from a trio imported by a San Francisco dealer and sold by him for $45. After I had acquired more knowledge I found my pure (!) Brahmas had come from disqualified birds with single or improper combs; and, as I could not justly sell their progeny as pure bred fowls, I turned them among my common poultry. I went to San Francisco, and visited, among other places, the yards of a Mr. Bayley, in Oakland. There I found order, neatness, cleanliness, thoroughbred stock, strong and healthy, and several strains of each all true to the standard, separate pens, a perfect system and what I considered awful prices. True he explained why he was forced to sell so high by informing me that he renewed his stock from the best eastern yards at great expense for expressage besides the cost of the birds, that he discarded all imperfect specimens and was at much expense in their careful keep and management. I loved not the fowls less but my money more. I tried elsewhere and finally concluded that I must import or buy from him. This year I have tried all whose advertisements I have seen and to whose chickens I could gain access personally, or through a friend, who is a fair judge. December 12th, in answer to advertisement, I sent $8 to Santa Clara for a pair of Brahmas. After paying expressage, my man brought home a puny cock, which I could not admit to my breeding pens, and a pullet which has not yet laid an egg. I remonstrated, but never got my money back. A friend in San Francisco has been to see all whose advertisements I had sent him, and writes me that he cannot find what he thinks would satisfy me, — the best cock being one with defective toes and other disqualifications. Another friend writes me: "I wish you could see the 'scrubs' offered for sale in our markets as fancy fowls. And they really succeed in getting $20 to $30 per pair from the uninitiated for the veriest trash. These men advertise pure-bred fowls, when they buy them all over the country, from the d—l knows who"—(my friend sometimes uses these words),—"and sell eggs laid by fowls cooped up and more or less diseased by confinement." No wonder that farmers, after being "sold" by such people denounce the whole thing of pure-bred fancy fowls as a humbug. As yet I have been unable to obtain good birds at a moderate price, but I hope that farmers will soon be able to sell to one another poultry whose pedigree they can give, and which are not in and in bred and which will yield them a handsome profit even if the first trio has been expensive. If one is a judge he can pick a fowl, even from such dealers once and awhile. but I want to warn against buying eggs from them or from any one who breeds together a cock and hen from the same nest, brother and sister. In and in breeding will deteriorate any stock, the eggs will not hatch well, the chicks will be sickly. There is one man in the California market, in San Francisco, who, I am told, has good fowls, and a friend is about to purchase some for me, though his prices are as high as any one's for what I buy. If they are first-class I shall be glad to give his name to my correspondents, as I am informed he breeds fowls and is a judge. Farmers want to know reliable dealers and, when I find one, I would like to publish his name if allowed. I am sure that there are some who have good fowls and would sell them, but we farmers may not know them, perhaps because they do not advertise in what is essentially *our* paper. Be chary of buying eggs. Learn to judge the breeds and I think it will pay better to buy the fowls; I said if you are a judge and can see the poultry you may get a bargain; anyhow you cannot be cheated. Now if Mr. Bayley reads this and has the plates, which, from his circular I judge he must, I ask him to offer to lend them; and, if the editor will have the picture printed, I will write a plain description of the fowl, one each week, so that any reader of the Press will be able to tell a true thoroughbred at a glance and reject any inferior stock which dealers may try to force on him. I want farmers not to be imposed upon, and I have written strongly and at length. If they get good stock I hope, in a few years, to be able to buy all the fowls I want from my brother farmers at a reasonable figure, instead of importing them at such cost, or buying at very little below the cost of importation.

A remedy for a disease, concerning which many have written me, will end my article. A chicken will be observed standing with a drooping sleepy look, oftentimes the comb turns black, wholly or in spots, the droppings are frequently greenish, the fowl becomes thinner day by day, standing with the head drawn down into the feathers of the back, until it finally dies. As soon as it is observed, give four or five tablespoonfuls of strong alum water and repeat the dose each day until much better. Confine in a dry place, give, in the morning, bran and middlings mixed with weak alum water into a mass stiff enough to crumble, and corn at night. Such is my remedy and I have never failed to cure since commencing its use. Fowls bred in and in are very much subject to it; but the disease attacks strong birds as I have had one of my Bronze turkeys suffer from it. Any soft food will do I presume, even if not mixed with the alum water. I have no name for the disease; before I used this remedy a *post mortem* examination showed enlarged and



PARASITES WHICH ATTACK LARGE TROUT.

eugorged liver with other functional derangements, and in one case mortification had set in. I tried calomel, quinine and other drugs, but never saved a fowl until I commenced the treatment above described. M. Eyre, Jr.

Napa, Cal., Feb. 21st, 1873.

P. S. The fowls referred to herein to be purchased from a man in the Cal. Market, arrived this 22d Feb. and, although I paid as high a price for one trio as I have ever been asked by anyone, they prove to be, just as I feared, not first class and such as I would reject if I had seen them in person. The hens are good enough, but the cock I have turned out among the common fowls. As I believe still that this man intends to deal fairly, he may, as I have requested, take back his cock; but I could not recommend any farmer to buy from him. E.

Napa, 22d Feb., 1873.

Cheap and Good Hencoop.

Editors Press:—As the season for hatching chickens has arrived, and coops must be provided, I enclose a plan of a light, cheap and substantial one which has the additional advantage of being more readily taken apart, and can be packed away flat and in small compass —easily put together again when wanted.

Fig. 1 is the front of the coop, made of laths —an equilateral triangle—28 inch legs; the upright bars are placed two inches apart, and when arranged as in the figure, two laths cut without waste to make the uprights—one annealed or wrought nail at each joint, clinched, makes the whole strong.

Fig. 2 is the back of the coop, for which one-half inch stuff is heavy enough—it is also a 28 inch triangle—a door hung with leather hinges and fastened with a button is more convenient than propping up one corner of the coop, to get the hen in or out.

Fig. 3 represents a side, made of pine shakes nailed to two cleats, each 24 inches long and two inches wide; the shakes come flush with the bottom of the lower cleat, and project one inch above the top cleat on one side and two inches above on the other, that the tops of the two sides may come together; dimensions of the sides 24 inches wide by 28 inches long.

Fig. 4 represents the coop complete, fastened together by copper or annealed wire at the joints numbered 1, 2, 3, 4 in Figs. 4 and 2; the holes for the wire are bored through the cleats on the side, and the front is fastened on by passing the wire round the outside lath—the back by passing it through holes bored as represented in Fig. 2.

These coops well made will last several seasons. J. T. Ward.

Napa City, Feb. 17th, 1873.

In the foregoing we seem to have presented us, a light, cheap and serviceable coop, adapted to our climate and other conditions. It is, so far as strength is concerned, a self-bracing coop; it gives the necessary shade, and yet a perfect ventilation is secured, and cannot harbor vermin to any extent. We should not hesitate to recommend its trial.

Fig. I.

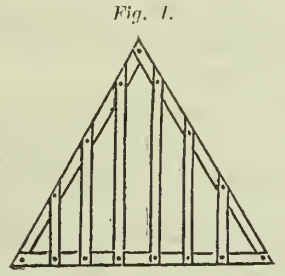


Fig. II.

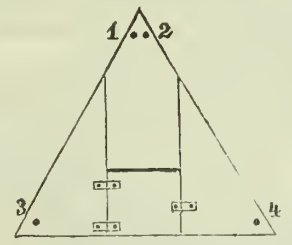


Fig. III.

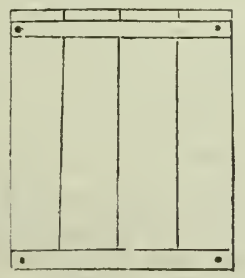
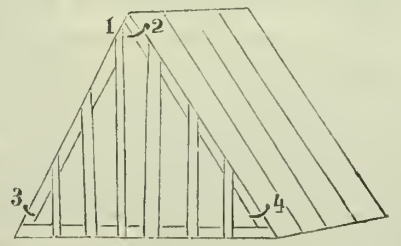


Fig. IV.



Public Sale of Thoroughbred Stock.

On the 9th of April next there is to be a notable sale of pure bred stock at Waukegan, Ill., a few miles north of Chicago. It will be the joint sale of the Woodland herd of improved Cotswold sheep, of Hon. W. B. Dodge, and some thirty or forty short-horns and other stock from the herd of the Glen Flora Association, of which C. C. Parks, Esq., is President.

An examination of advertisement in another column will clearly indicate the value of the animals to be sold. It is represented to us that the sale will comprise the largest and best collection of animals ever offered at auction in America.

Late Rose Potatoes.—Those who wish to secure some of the Late Rose Potato, which we illustrated in our issue of Feb. 15th, are referred to Mr. Dwinelle's advertisement on page 144.

Fish Culture.

Nearly every known animal, large or small, has it own peculiar parasites or lice that prey upon the larger animal, generally to its inconvenience and oftentimes affecting the health. It would seem as though fish, constantly immersed in water, might be free from parasites, but such is not the fact. Livingstone Stone, in his work on Domesticated Trout, says:

"It is well known that when trout become injured or unhealthy, a fungoid growth appears in blotches over the surface of their backs, and usually terminating in fatal results in a few days. It has been supposed that the fungus eats into the tissues of the fish, and destroys it.

The microscope reveals, however, that it is not the fungus that penetrates into the fish, but a multitude of microscopic worms of the shape and appearance as presented in our illustration. The worms are never found in the upper parts of the fungus, but just below at the roots, or where the fungus joins on the surface of the skin. Here between the roots of the fungus and the body of the fish are found hundreds of these creatures, incessantly in motion, and apparently eating vigorously.

They are about one-eightieth of an inch in length and one two-hundredths of an inch in diameter, and are provided with a mouth, as at *b*, in cut, and at the other extremity *a*, with about 20 claw-like appendages for fastening on to the fish on which they feed. They are continually eating into the tissues of the fish, and the twenty tentacles enable them to fasten on so tightly that the fish cannot shake them off. These parasites appear to live on the flesh of the fish, and the fungus to live on the digested matter into which they transform it.

This discovery led to some experiments in search of a remedy, and it was found that a strong solution of salt destroyed the parasites. Experiments were then made of immersing trout in salt water, and it was found to be perfectly harmless, if not too long-continued. A method was thus found of killing the parasites without killing the fish, which fact was confirmed by actually taking a trout covered with fungus and immersing him in a salt bath for a moment or two, and afterwards keeping him by himself for several days. The fungus peeled off, the parasites were killed, the bare spots healed over, and the trout got well.

From all of which we may, I think, draw the following conclusions: That it is the worm, and not the fungus, which eats into and kills the fish; and that the fish can be cured, when not too much weakened, by immersion in a strong solution of salt. I used a tablespoonful of salt to a pint of water, and kept the fish in it till he went over it on his back, and then took him out and put him instantly into cold, running water."

More about fish parasites in a succeeding number.

Plant Gardens---Plant Flowers.

CHOICE SEEDS AT HALF PRICE TO SUBSCRIBERS OF THE PACIFIC RURAL PRESS.

Inducements for New Subscriptions and Renewals.

There should be more gardens planted on this Coast. It would add pleasure and health to many, and enhance the value and attraction of their homesteads. To encourage the planting of seeds, and to extend the circulation of the Pacific Rural Press, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers, seeds at one-half the usual San Francisco prices, when postage is added.

Send your orders and address plainly and fully written in such a manner that we can hand the sheet to our seedsmen to fill and send your order direct. Give the Nos. and names in the same order as printed below.

Enclose ONE-HALF of the following price for whatever you wish:

VEGETABLE SEEDS IN PAPERS, POST PAID.	CTS.
1. New Joint Pop Corn; A choice novelty	25
2. Joint Sweet Corn	12½
3. Early Michaux Peas	12½
4. Eng Champion Sweet Peas	12½
5. Early Blood Turnip Beets	12½
6. Long Smooth Blood do	12½
7. Early York Cabbage	12½
8. Large Late Drumhead do	12½
9. Early Scarlet Horn Carrot	12½
10. Long Orange do	12½
11. Early London Cauliflower	12½
12. Early Paris do	
13. White Solid Celery	12½
14. Early Short Green Cucumber	12½
15. Early Wh. Spined do	12½
16. Long Purple Egg Plt	12½
17. Imp. N. Y. Purple do	12½
18. Early Curled Silesia Lettuce	12½
19. Romaine do	12½
20. Fine Nutmeg Musk Melon	12½
21. Black Spanish do	12½
22. Ex. Early Red Onion	12½
23. Yellow Danvers do	12½
24. Ex. Curled Parsley	12½
25. Long White Parsnip	12½
26. Large Squash Pepper	12½
27. Large Bell do	12½
28. Large Cheese Pumpkin	12½
29. Early Olive Shaped Radish	12½
30. Long Scarlet Short Top do	12½
31. Early Scarlet Turnip do	12½
32. Large Flanders Spinach	12½
33. Round Leaved do	12½
34. Early White Scollop Bush Squash	12½
35. New Hubbard do	12½
39. Extra Early Red Tomato	12½
37. Large Red Smooth do	12½
38. Trophy do	12½
39. Early White Stone Turnip	12½
40. Red Top Strap Leaf do	12½
41. Long White French do	12½
42. White Globe do	12½
43. Purple Top Ruta Baga	12½
44. Early China Dwarf Beans	12½
45. Early Snap Short do	12½
46 Broad Windsor do	12½
47. Large Wh. Lima pole do	12½

FLOWER SEEDS. POST PAID—	CTS.
48. Aster—Mixed China	12½
49. Candytuft	12½
50. Canterbury Bells	12½
51. Carnation	12½
52. China Pink	12½
53. Chrysanthemum	12½
54. Columbine	12½
55. Cypress Vine, Scarlet	12½
56. Daisy fine dbl	12½
57. Dew Plant	12½
58. Dianthus	12½
59. Evening Primrose	12½
60. Forget-Me-Not	12½
61. Four O'Clocks	12½
62. Geraniums	12½
63. Heartsease	12½
64. Heliotrope	12½
65 Hyacinth Beau	12½
66. Ice Plant	12½
67. Ipomosis	12½
68 Larkspur in vars	12½
69. Love-lies-bleeding	12½
70. Lobilia	12½
71. Love in a mist	12½
72. Lupins, as ortod	12½
73. Lychnis, scarlet	12½
74. Marigold	12½
75. Mignonette	12½
76. Monkshood	12½
77. Morning Glory, mix'd	12½
78. Nasturtion	12½
79. Pansy	12½
80. Petunia, mixed	12½
81. Pentstemon	12½
82. Picotee	12½
83. Phlox-Drummondu	12½
84. Pink, assorted	12½
85. Polygonifolius	12½
86. Poppy, double white	12½
87. Portulaca, fine mixed	12½
88 Primrose, in vars	12½
89. Prince's Feather	12½
90. Salvia	12½
91. Satin Flower	12½
92. Sensitive Plant	12½
93. Snapdragon	12½
94. Stock Gilli	12½
95. Sunflower	12½
96. Sweet Alyssum, wh.	12½
97. Sweet William, yel'w	12½
98. Sweet Rocket	12½
99. Sweet Peas, mixed	12½
100 Verbena, finest mix'd	12½
101 Violet	12½
102 Wall flower, yellow	12½
103 Zinnia, fine mixed	12½

For other kinds of seeds, or for seeds in large quantities, patrons are referred to reliable seedsmen advertising in this paper. We wish to aid in increasing the planting and cultivation of gardens.

We are not going to embark in the regular seed business, and have not time to investigate or answer questions of private interest only, nor respond to orders received without remittances.

Subscribers will please notify neighbors who do not take this paper of this offer, and the merits of the Press.

In writing correspondence, items of information, or on other business, please use a separate sheet.

Dewey & Co., Publishers,
No. 388 Montgomery Street, San Francisco, Cal.



My Mothers' Spinning Wheel.

BY J. B. ROBERTS.

How often, in my waking dreams,
Up the old garret stairs I climb,
Where struggling beams of light reveal
A relic of the olden time——
A relic of the olden time,
Which dust and cobwebs half conceal,
As useless lumber stowed away—
My mother's little spinning wheel.

In the old garret now it stands,
Its busy hum is heard no more;
Broken and tangled are its bands,
The distaff on the dusty floor;
For long ago were laid away,
In the cold chambers of the dead,
The feet that turned the busy wheel—
The hands that deftly drew the thread!

Day after day, with patient toil,
At that same wheel she sat and spun,
And drew the thread with dextrous hand,
Until the woof and warp were done.
And sometimes in my pensive moods,
The tears adown my cheeks would steal,
As the soft music of her voice,
Blent with the whirring of the wheel.

How often, in my childhood hours,
I listened to those soothing lays!
Not dulcet sounds of harp and lute,
Seemed half so sweet in after days.
My mother! ah, that sacred name,
What memories o'er my spirit steal!
Methinks I see her, as of yore,
Sitting and singing at her wheel.

Just as of yore I see her now—
The wheel, the distaff and the chair;
The sunbeams playing round her head,
And nestling in her silver hair;
Oh, vain illusion! Well I know
The sands have from her hour glass run;
The weary wheels of life have stopped,
And all her work on earth is done!

The soothing whir of that old wheel
No more shall o'er my spirit come;
Perhaps my feet no more will cross
The threshold of my early home;
Yet oft my pensive thoughts will turn
From present scenes away, and steal
Up the old garret stairs, where stands
My mother's little spinning wheel.

The pleasing dreams of other years,
Have like the mists of morning flown—
My form is bowed with toil and care,
And I have old and weary grown.
And toward the grave, from day to day,
My steps decline, and just before
Runs the dark river that divides
Our land from that mysterious shore.

My feet are wounded by the thorns
That in my pathway rough are strewn;
And oh, how many a tear-dimmed page
Is from the book of memory torn!
But not while life and reason last,
Can I forgot, or cease to feel
Emotions that my bosom swell,
At sight of this old spinning wheel.

Home Teachings.

EDITORS PRESS:—I have been a constant reader of your valuable paper ever since its publication; I am deeply interested in it, and glad to see so many farmers and their wives writing for its columns. While they endeavor to teach us how to grow fine fruits, the vine, etc., all very commendable in their way, I will try to say a few words to parents about the training of our "olive branches," the best gifts from the "Great Creator;" our boys in particular, I wish to speak for, and in defense of. I am so tired of hearing parents as well as others speak as though they could expect nothing good of boys, while it is a rare thing for girls to cause any trouble. Now this is all wrong, and the parents are to blame for most of the trouble.

People coming here from the "East," are led to believe that the boys in California are worse than those at home, but this is a mistake. They have been more neglected, or left to roam more at their own sweet will here, hence the supposition. Look at our boys, *study* them. What are they? As handsome specimens of Adam as ever walked the *Earth;* remarkably healthy, full of life and activity; but they must be well trained and employed, or the active minds and hands will find mischief to do. They must have some constant guide. Father and mother this is *your* duty; if it is well done, all will be well, if not, a precious son may be shipwrecked at the beginning of his journey on the "sea of life."

Make companions of your boys as you do of your girls, if they are inclined to "run the streets," find some employment for them at home, and then help them in it if possible. Show them that you take an interest in them and their work, and you will be surprised in a short time to see how particular they are to please you. In almost every house we find the girls have their own room, trunk, closets, etc., with a place for everything, and everything in its place. But the boys generally have to put up with inferior accommodations, no trunks or closets, or anything of the kind wherein to deposit their treasures. Many of us have boys who are naturalists, who will climb hills and mountains to gather specimens, rock, shell, moss, or anything curious from "Nature's laboratory," and when he gets home he is often told to throw that trash away.

Oh! mothers, what a disappointment! Many of the golden sands from his young life run out with just such trash. Parents should accompany their children to church, the Sunday-school and places of amusement; watch over them at home and abroad. By doing this you learn them to avoid bad company, the worst snare of all for their young feet.

There are many farmers' families living far from schools and churches. These parents have a great responsibility. They must fill the place of teacher themselves; and this added to their other cares makes the burden seem heavy; but great will be their reward. If your children lack some of the advantages of town or city life, they also miss many of the temptations of such a life. It was from families so situated, that some of nature's noblemen have been called.

I was so situated for twelve years. I taught my children, with occasional help from my husband; subscribed liberally for childrens' magazines and papers, which were highly appreciated and neatly preserved as mementoes of the pleasant past. Teach your sons to be kind, and to love nature, the birds and flowers, the landscapes, the sunset, etc., and they will be sure to love God, and their fellow man.

I once called to see a lady, living in northern California, who had but one son and daughter. The daughter had just left home to attend a distant boarding school; the lady was in very poor health; she was very anxious I should spend the afternoon and take tea with her, which I declined, saying you have no help; I could not think of staying, but she interrupted me, saying—Mary is gone I know, but Richard, my son, is excellent help; he is doing all the housework now, and does it so nicely. I will add, Richard is a promising young lawyer now, and is just as good a hand to do housework as ever, when it relieves his excellent mother to do so; his early training has made him self reliant, and he is not selfish, as those who are willing to work for the comfort and happiness of others seldom are. COUSIN MILLY.

St. Helena, Napa Co., Feb. 17th, 1873.

Among the Snow Drifts.

EDITORS RURAL PRESS:—Away up here in Central New York where the snow lies in some places high as a tall man's head, and the cold is so intense that going into a room away from the stove, is like facing a blast from Greenland. There is a family which rejoices whenever the PACIFIC RURAL PRESS comes to hand, not borrowed, begged, or stolen either, but sent by a sister who pays for it, so the pleasure is honestly earned.

There is the mother stitching away, and the daughters busy at some handicraft are near by, and comfortably seated in her own cushioned rocker is the reader, and from Alpha to Omega she "goes through" the RURAL and for an hour or two. Snow and ice are forgotten while listening to things in California. What can you know of discomforts in that land of delight? What does cold signify to those who sit with open windows in January? How can you properly appreciate the boundless array of fruits and flowers of every nursery earth can afford, when it is the same story of abundance the year round?

Well we do not allow envy to disturb us, but we say with pride—Well, California is far away, but it's one of the United States for all that. We are under the same old flag, and there is many a Chenango boy and girl hidden in the guise of grave men, and stately matrons in the land of gold.

We are proud of your success, we know it's dear bought, nobly earned, and so we read with renewed interest what the farmers, mechanics and artisans of the Pacific Slope are doing.

We know all about your great trees, your mountains, your rivers, and glory in the beauty and the sublimity of places upon which our eyes never rested, save in those stereoscopic views for which your city is renowned the world over.

Your paper is better than any other of the kind I know of. It tells just what we wish to know, and those who have taken agricultural papers for years say the same.

You ought to be here to night just long enough to see Northern boys and girls have a gay time coasting, or to use our old-fashioned term, sliding down hill. Beneath this beautiful moonlight the merry party will go swiftly as an arrow in its flight, one sled after the other, for a mile in descent.

Good night, and good luck to your PACIFIC RURAL, says your admiring

SNOWBIRD.

Chenango Valley, N. Y., Feb. 11th, 1873.

BUSY CHILDHOOD.—Do you ever think how much work a little child does in a day? How, from sunrise to sunset, the dear little feet patter round (to us) so aimlessly? Climbing up here, kneeling down there, running to another place, but never still. Twisting and turning, rolling and reaching and doubling, as if testing every bone and muscle for their future uses. It is very curious to watch it. One who does so may well understand the deep breathing of the rosy little sleeper, as, with one arm tossed over its curly head, it prepares for the next day's gymnastics. A busy creature is a little child.

A Good Joke.

Mr. Jones one evening in fly time, having been provokingly lashed in the face, tied the tail of the cow he was milking very securely to his boot strap. Everything went on smoothly for a time, and Mr. Jones congratulated himself on the stratagem.

Presently, however, the cow took a notion to lash a fly that was biting her. Mr. Jones chuckled some when he felt the pull at his boot strap; but the chuckling was cut short, for "Bossie," finding that she could not touch her tormentor, suddenly started, and as Mr. Jones was not prepared for such a demonstration, he was upset, and the contents of the pail distributed over his clothes.

The cow stopped for a moment, and in that time our hero had gained his feet.

In an instant after he was seen with his hand on the hip of the cow, making the tour of the farm-yard with prodigious hops upon one foot. At every hop he would ejaculate, "So, Boss! So Boss!"

But "Boss" didn't "so" worth a cent. At last the boot attachment gave way, and Mr. Jones returned to the house a wiser, if not a sadder man.

WHAT SMOKING DOES FOR THE BOYS.—A certain doctor, struck with the large number of boys under fifteen years of age whom he observed smoking, was led to inquire into the effect the habit had upon the general health. He took for his purpose thirty-eight boys, aged from nine to fifteen and carefully examined them. In twenty-seven of them he discovered injurious traces of the habit. In twenty-two there were various disorders of the circulation and digestion, palpitation of the heart, and more or less marked taste for strong drink. In twelve there was frequent bleeding of the nose, ten had disturbed sleep, twelve had slight ulceration of the mucous membrane of the mouth, which disappeared on ceasing from the use of tobcco for some days.

The doctor treated them all for weakness, but with little effect until the smoking was discontinued, when health and strength were soon restored.

Now, this is no "old wife's tale," as these facts are given on the authority of the *British Medical Journal.*

FALLING OVER A WHEEL-BARROW. — If you have occasion to use a wheel-barrow, leave it, when you are through with it, in front of the house with the handles towards the door. A wheel-barrow is the most complicated thing to fall over on the face of the earth. A man would fall over one when he would never think of falling over anything else; he never knows when he has got through falling over it, either, for it will tangle his legs and his arms, turn over with him and rear up in front of him, and just as he pauses in his profanity to congratulate himself, it takes a new turn, and scoops more skin off of him, and he commences to evolute anew, and bump himself, on fresh places. A man never ceases to fall over a wheel-barrow until it turns completely on its back, or brings up against something it cannot upset. It is the most inoffensive looking object there is, but it is more dangerous than a locomotive, and no man is secure with one unless he has a tight hold of its handles, and is sitting down on something. A wheel-barrow has its uses, without doubt, but in its leisure moments it is the great blighting curse on true dignity.—*Danbury News.*

A TAME WASP.—At the recent meeting of the British association, in Brighton, in the section of zoölogy and botany, Sir John Lubbock exhibited a tame wasp, which had been in his possession for about three months, which he brought with him from the Pyrenees. The wasp was of a social kind, and he took it in its nest, formed of twenty-seven cells, in which there were fifteen eggs, and, had the wasp been allowed to remain there, by this time there would have been quite a little colony of wasps. None of the eggs, however, came to maturity, and the wasp had laid no eggs since it had been in his possession. The wasp was now quite tame, though at first it was rather too ready with its sting. It now ate sugar from the hand and allowed him to stroke it. The wasp had every appearance of health and happiness; and although it enjoyed an "outing" occasionally it readily returned to its bottle, which it seemed to regard as a home. This was the first tame wasp kept by itself he had ever heard of.—*Appleton's Journal.*

THAT was a beautiful idea expressed by a lady on her death-bed, in reply to a remark of her brother, who was taking leave of her to return to his distant residence, that he should probably never meet her again in the land of the living:—"Brother, I trust we shall meet in the land of the living. We are now in the land of the dying."

YOUNG FOLKS' COLUMN.

Little Annie.

Some time ago I read a touching story about a little girl who was very sick with a burning fever. She asked her brother Harry, who was playing in the room, to get some cold water. The busy little boy did not heed his sister's call at once, but kept steadily at work upon a trap he was trying to make. After waiting a few moments little Annie said again:

"Please, Harry, get me some water?"

"In a minute, Annie," said the boy, impatiently.

Annie's feverish cheeks were pressed again to the pillow, and Harry's hands went on as busily as ever with the trap he was making, and he at length forgot the request.

"Please get it now, Harry," he at last heard, and scattering knife, triggers and string in his haste, he was soon holding a cup to the crimson lips; but she turned her head languidly from it.

"Not this, please, but some fresh and cold from the well," she said.

"Oh, don't be so particular, Annie; this is fresh, and I'm so busy, I can't go now. Won't this do?"

She no longer refused, but quickly took the cup which he offered, and it was the last, last time she ever called upon her brother for an act of kindness. Before another day had passed, she stood by the river of life, and drank of its cool waters never to thirst again; and of all who wept over that little casket, as it lay upon the table before the pulpit, there were none who shed more bitter tears than that little boy, who could not forget that he had refused the last request of his dear little sister.

"Oh! mother," he would say, "if I had only brought that water for her, I could bear it; but now she has gone where I can never, never wait on her again."

Think of little Harry and Annie, children, when you are tempted to quarrel, to be selfish or unkind; for do you know that if one of your number should die, the rest would remember every act of unkindness, every bitter word which had fallen from your lips? Then it would be too late to recall it; too late to ask forgiveness. The memory of pleasant words and kindly acts, are like sunbeams across our path, and more precious to the heart than gold when those we have loved are gone from our sight, and we see their dear faces and loving smiles no more. "Little children, love one another."—*Advocate of Peace.*

A School Boy's Letter.

Youthful productions are sometimes amusing; hence we print this, said to have been written by a down East youth:

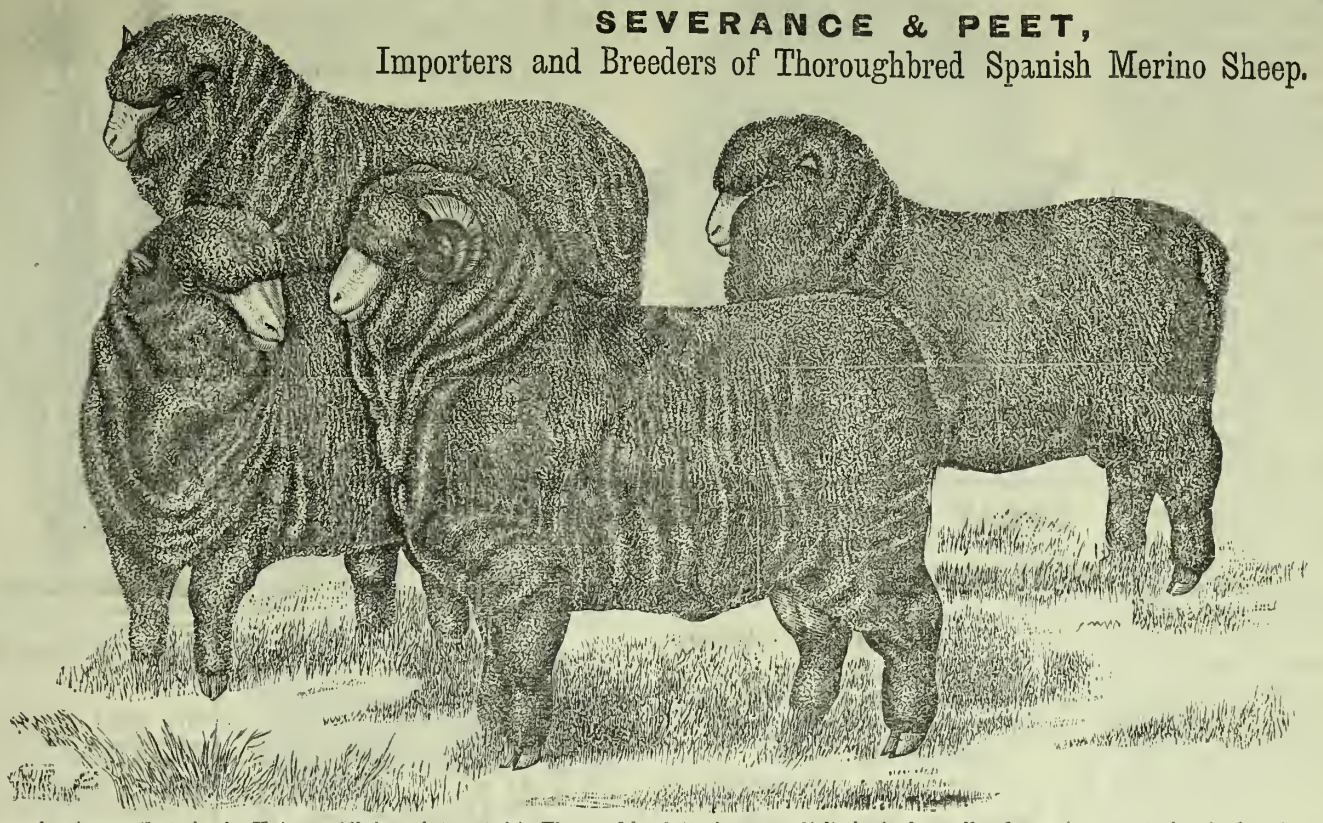
My Dear Grandmother: One of my elbows came through, but the woman sewed it up again. I've used up both of my balls of twine. And my white-handled knife—I guess it went through a hole in my pocket, that I didn't know of till after my knife was lost. My pants grow pretty short, but she says it's partly because my legs are getting long—I'm glad of that—and partly getting 'em wet. I stubbed my toe against a stump, and tumbled down and scraped a hole through the knee of my oldest pair, for it was very rotten cloth. I guess the hole is too crooked to have her sew it up again. She thinks that a mouse ran up the leg, and gnawed that hole my knife went through, to get the crumbles in the pocket. I don't mean when they were on me, but hanging up. I did what you told me when I got wet. I hung my clothes round the kitchen stove on three chairs, but the cooking girl she flung them under the table. So now I go wrinkled, and the boys chase me to smooth out the wrinkles. I don't skip over any button-holes in the morning now, so my jacket comes out even. Why didn't you tell me I had a red head? They say they'd pull my hair if it weren't for burning their fingers. Dorry said he guessed my hair was tired of standing up, and wanted to lie down to rest. I wish you would please send me a new comb, for the large end of mine has got all but five of the teeth broken out, and the small end can't get through. I can't get it cut, because the barber has raised his price. Send quite a stout one. I have lost two of my pocket handkerchiefs, and another went up on Dorry's kite, and blew away.

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street..... SAN FRANCISCO

IMPORTERS AND JOBBERS

—OF—

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

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G. W. SWAN. OLIVER HINCKLEY.

UNION BOX FACTORY,

SWAN & CO.,

114 and 116 Spear Street, - - - - San Francisco.

GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS. FOR FARMERS. FOR FRUIT CANNERS.

Sugar Boxes,
Spice Boxes,
Citron Boxes,
Jelly Cans,
Pickle Cans,
Kerosene Cans,
Butter Caddies,
Lard Caddies,
Butter Chests,
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Peach Baskets,
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Apricot Boxes,

Plum Boxes,
Cherry Boxes,
Grape Boxes,
Orange Boxes
Raisin Boxes,
Butter Chests,
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Gift Packages,
Bullion Boxes,
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Tool Chests,
Office Boxes,
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All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

A New Discovery Makes Wood Impervious to any Liquid.

Another Cuts Wood as Thin as any Pasteboard and Smooth as Paper.

Another Makes a Strong Corner Without a Nail.

5v5-3m

Stock Notices.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
6v3-eow-tf California.

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,
fe15-2m Oroville, Butte County, Cal.

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS."—*Alexander.*
"You get no FIGS from THISTLES"—*Old Proverb*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.

Office and Rooms, in Webb's Building, 31 Second St., opposite the Grand Hotel.

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WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down SHEEP.



—ALSO—

THE ANGORA GOAT.



Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

100 YEAR ALMANAC. FOR 50 CENTS we send, post-paid, an Almanac giving every Year, Month, Week and Day of the Century; also a Pocket Calendar for 1873. Extra inducements to Agents. Address
GEORGE A. HEARD & CO., Boston, Mass.
23v4-13t

DEVON STOCK FOR SALE.

A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character

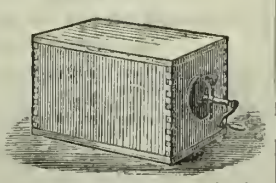


From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,
jan25-3m16p Three Miles from Menlo Park.

CHURNS.

Those in want of BOX CHURNS will do well to call at the old stand 113 Commercial street, San Francisco, between Davis and Drumm, and examine our improvements before purchasing elsewhere.



The undersigned is the pioneer in this line, having manufactured them for the last ten years in this city.

☞ Patent applied for.
14v22-3m H. G. PRATT.

Lewis & Pander, Dealers in Stoves,



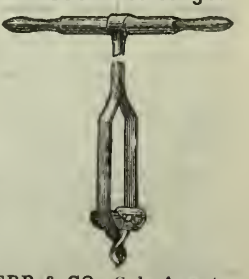
Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

5,000 AGENTS WANTED.—Samples sent free by mail, with terms to clear from $5 to $ 0 per day. Two entirely new articles, saleable as flour. Address, N. H. WHITE, Newark, N. J.

armers, Save Your Time

BY USING

Stickney's Patent Post-Hole Auger.



They are adjustable, and will bore a hole from

4 to 8 inches

In any kind of soil, with perfect ease. They are made of solid CAST STEEL, and will never wear out.

PILSBURY, WEBB & CO., Sole Agents,
N. E. cor. Front and Pine Streets,
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Attention, Owners of Horses.



The Zinc Collar Pad is guaranteed to cure the worst cases of raw and inflamed sore neck in Ten Days, and work the horse every day, or money refunded; and will not chafe or wear the mane off of the neck. For sale by Saddlery, Hardware, Harness Trimmings and Harness Makers. Manufactured by the Zinc Collar Pad Co., Buchanan, Mich.
fe8-4t

Sale of Thoroughbred Stock.

R. M. Sparks, of Marysville, sold at public auction at the Agricultural Park, Sacramento, on the 25th inst., eleven head of Durham cattle. This being the first sale of the kind in the State, a considerable interest was felt in the result, particularly among stock men, and yet the attendance was quite limited. The animals were not in good condition—but on the coutrary many of them were poor and showed a want of proper care.

Considering the condition of the animals we think the prices realized were good.

Again we noticed that bidders had but little confidence in their own judgment. As an evidence of this we would mention the fact that the two heifers "Ulalie" and "Maggie" 4th, being the last to be sold, the owner announced that if he put them up it must be on condition that he have the privilige of one bid on each.

This being agreed to by those present they were put up and Mr. Sparks announced that his bid on each heifer was $400. As a consequence the bidding was more spirited than for any of the other animals, and the prices realized much higher.

Had "Maggie" and calf been put up under similar circumstances we have no doubt she would have been sold at $500.

Following is a list and pedigree and the price at which the animals were sold:

Monkey John, 10,504, $425; Duke of Yuba, red and white, $100; Bismarck, red, $200; Alexis, red and white, $270; Lexington, red, $150; Clinton Lady, $105; Maggie, $305; Maggie, 2d, $75; Ulalie, $490; Miss Morgan, $275; Maggie 4th, red, $410.

Lands in Kern County.—One of our subscribers in letter of Feb. 14th, from St. Helena, says: "I write to get a little information in regard to public lands in Kern county. Is there plenty of vacant land to be taken up there; well watered and timbered? How is the soil for raising vegetables, fruit, grain, etc.? How are the mountains suited for raising stock of all kinds? Please answer and oblige." Will some of our numerous readers in Kern county, answer his inquiries?

Meeting of the California Farmers' Union.

A meeting of this organization has been called in San Francisco, April 9th, 1873. feb18-tf

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Laws Concerning Corporations.

[Under the New Code—January 1, 1873.]

GENERAL PROVISIONS APPLICABLE TO ALL CORPORATIONS.
WAGON ROAD CORPORATIONS.
WATER AND CANAL CORPORATIONS.
HOMESTEAD CORPORATIONS.
MINING CORPORATIONS.
LAND AND BUILDING CORPORATIONS.
Also, MINING PARTNERSHIP LAW.

A pamphlet containing the above provisions concerning Corporations has been printed from the Statutes of California. It furnishes those who wish these special laws an opportunity of obtaining them for the small sum of 25 cents (post paid). Address, Dewey & Co., Publishers, and Patent Agents, S. F.

HINTS FOR INVENTORS. We will send on receipt of stamp for postage, FREE, our 52-page Circular, containing 112 Illustrated Mechanical Movements; a digest of PATENT LAWS; information how to obtain patents, and about the rights and privileges of inventors and patentees; list of Government fees, practical hints, etc., etc. Address DEWEY & CO., Publishers and Patent Agents, San Francisco.

Send us Communications.—They will be respected. If you have not time or the experience to write finished articles, send us facts brief and plain. We will take care of them. Remember that writers improve themselves with others by use of the pen. Officers of societies, clubs and meetings, please report.

March Styles—E. Butterick & Co.'s Celebrated Patterns, the standard for American Fashions; with them any garment can be cut and made to fit perfectly. Send postage stamp for price list and illustrated catalogue. Address H. A. DEMING, 113 Kearny street, San Francisco. 1t

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Wm. Shew's Photograph Gallery, the oldest in the State, and for a long time located on Montgomery street, is now on Kearny, at No. 115, and has no connection with any other. All kinds of Photographs taken in the very best style for about one-half the prices charged on Montgomery street. *

Altogether the Best.—It is curious, but true, that J. A. Shaner, 707 Market street, near Third, should sell Furniture and Bedding cheaper than any other dealer in this city. Try him and you will be convinced. 3v5-3m

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A protruding toe is not a sightly thing, say nothing about health and comfort. Silver Tipped Shoes never wear out at the toe.
For sale by all dealers.

TO THE WORKING CLASS, male or female, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods to start with, sent free by mail. Address, with 6 cent return stamp, M. YOUNG & CO., 16 Courtlandt street, New York. fe8-4t

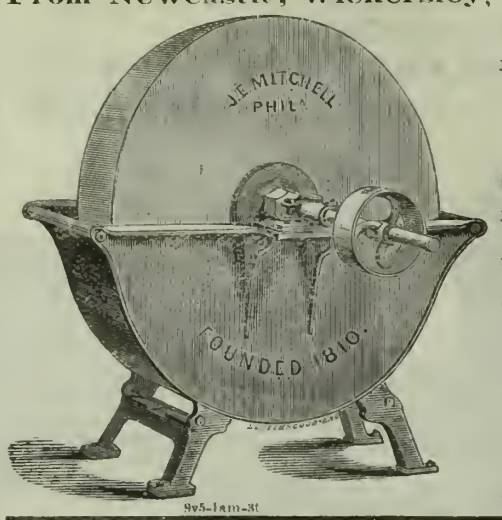
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Groceries and Provisions.—Wines and Liquors are shipped to country orders with dispatch, carefully marked and packed, free of extra charge, by B. Snaebono & Bro., 531 Washington street, S. F. This long established firm now import their goods from the four parts of the world, and consequently undersell all other grocers in San Francisco. All orders from the State and coast are promptly attended to. Address B. Snaebono & Bro., Lock Box 1126, San Francisco. d14-3m

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From Newcastle, Wickersley, Nova Scotia and Ohio,



OF ALL SIZES AND GRITS.

Especial attention being paid to the selection of suitable grits for grinding

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Can obtain suitable grits, having over a THOUSAND TONS to select from.

Send for descriptive pamphlet of "How to Hang and Use a Grindstone.

J. E. MITCHELL,

310 York Avenue, PHILADELPHIA.

9v5-1am-3t

GREAT JOINT SALE

—OF—

SHORT-HORNS

AND

COTSWOLD SHEEP,

Consisting of the

ENTIRE WOODLAWN HERD

Of Wm. B. Dodge, and a large draft from the

GLEN FLORA HERD

At WAUKEGAN, ILLINOIS, on

Wednesday, April 9th, 1873.

The subscribers announce that they will hold a public sale, at WAUKEGAN, ILLS., WEDNESDAY, April 9th, 1873, of **90 Head** of highly and fashionably-bred **Short-Horn Cattle**, and **100** pure-bred **Cotswold Sheep**, mostly imported, being the entire Woodlawn herd of WM. B. DODGE, and a large number of the most desirable animals from the Glen Flora herd, of the Glen Flora Stock Breeding Association.

Among the animals to be sold are

MAZURKAS,
LADY CLARKS (Miss Wileys),
JUBILEES,
MINNAS,
CONSTANCES.

Also, several other noted animals, including **Henrietta, Lady Brough, Countess of Oxford, Pattie Moore and Flattery 4th**, the get of the noted Minister, the prize bull Scotsman, etc.

We have no hesitation in saying that we believe this sale will comprise the largest collection of first-class stock—show animals and prize winners on both sides of the Atlantic—ever offered in this country at public sale.

Terms of Sale:

Six months time will be given on approved endorsed notes (interest at rate of six per cent. per annum). For cash in hand a discount of 5 per cent. will be allowed.

Waukegan is 35 miles north of Chicago, on Milwaukee Division of N. W. R. R. Trains leave Chicago at 8 A. M. and 9.45 A. M., and return in time for all trains leaving Chicago that evening.

Sale will commence at 10 o'clock, A. M., SHARP.

For Catalogues, giving full description, pedigrees, etc., address either of the undersigned.

WM. B. DODGE,
C. C. PARKS, Pres't.

Waukegan, Lake Co., Ills.

☞ On the day following, a public sale, from the **SLAUSONDALE HERD**, of GEO. MURRAY, Esq., will be held at Racine Junction, Wis., 25 miles north of Waukegan. mrl-eow3t

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Calvert's Carbolic

SHEEP WASH.



THE ONLY CURE AND PREVENTIVE OF

Scab and Foot Rot in Sheep,

Of Lice in Chickens,

And Ringworm in Cattle.

Sole Agency at

T. W. JACKSON'S,
416 Sacramento street,
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PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO.

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.
Office, 3 and 5 Front street.
Works, King street, bet. Second and Third. fe15-eow

Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

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Garland's Vegetable Cough Drops

The Greatest Remedy of the age for all LUNG COMPLAINTS.

Warranted to Cure.

Depot—No. 828 Market st., San Francisco.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,

Haines' Headers, Ithaca Horse Rakes, Hoadley's Engines, Pitts Horse Powers, Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements.

And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separator, have the **Lautenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

Richardson's

NEW METHOD

FOR THE

PIANO.

Unequalled—Incomparable! So admitted by the Leading Pianoforte Teachers of the country, and its annual sale of 25,000 copies abundantly testifies to the fact.

The TEACHER—CANNOT USE A MORE THOROUGH OR EFFECTIVE METHOD.

The PUPIL—CANNOT STUDY FROM A MORE CONCISE OR ATTRACTIVE SYSTEM.

The DEALER—CANNOT KEEP IN STOCK A BOOK FOR WHICH THERE IS SURER AND GREATER DEMAND.

Sold Everywhere. Price. $3.75.

OLIVER DITSON & CO., Boston.

CHAS. H. DITSON & CO., 711 Broadway, New York.

NOVEL AND PROLIFIC VARIETY

Branching Joint Pop Corn.



[*From Pacific Rural Press.*]

Pop Corn.—In our Illustration we present a variety that claims the merit of being simply perfect pop-corn; it was raised by Joseph Dimmock of Windsor, Sonoma County, last year. It is exceedingly prolific, and many stalks produced more ears than are shown by our engraving.

We have tried the popping quality of this corn and knew it to be superior. It matures fully.

We have before spoken of this remarkable production, and can vouch for its growth in California, as stated above; but for its success elsewhere we quote the following from Mr. Judson, who first propagated it:

"The most productive variety known, PRODUCING FROM EIGHT TO TEN EARS ON EACH STALK. Equal to a yield of from 150 to 200 bushels per acre. Although it is, strictly speaking, a variety of parching corn, it is adapted to all purposes of common field corn for stock and poultry feeding, etc. It weighs, when shelled, stricken measure, 60 to 62 pounds per bushel. It should be planted in drills three feet apart, putting one kernel to every foot.

Price, 25 Cents.

For sale, Wholesale and Retail by

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ONE PAIR FOR SALE BY

1t **THOS. S. DAY**, 732 Montgomery street.

S, F. and Liverpool Average Prices of Whea

NOTES.

*—Variation—Averege increase daily. †—Variation—Average decreasa daily.

‡— Averege monthly decrease.

¶—The difference here noted is that between the averaga price of average shipping wheat in S. F. and in Liverpool, ae telegraphed by the Associated Prees and to the Merchants' Exchange on particular days

1873	SAN FRANCISCO.										LIVERPOOL BY TEL.				DIFF.¶
DATE.	COAST.		VA.	SHIPPING.		VA.	MILLING.		VA.		CALIFORNIA AVERAGE.		CALIFORNIA CLUB.		
Jan 27	1 80	@1 90	....	1 90	@2 00	....	2 00	@—	....		3 03	@3 07	— —	@— —	1 10
28	1 80	@1 90	....	1 90	@2 00	....	2 00	@—	....		— —	@— —	— —	@— —	— —
29	1 75	@1 85	†5	1 90	@1 95	†2½	1 90	@2 00	†5		3 00	@3 03	— —	@— —	1 09
30	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	....		3 00	@3 03	— —	@— —	1 09
31	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	....		2 98	@3 01	3 07	@3 19½	1 01½
Feb. 1	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	....		2 98	@3 01	3 07	@3 19½	1 01½
3	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	..		2 98	@3 01	3 07	@3 19½	1 01½
4	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	....		2 98	@3 01	3 07	@3 19½	1 01½
5	1 75	@1 85	....	1 90	@1 95	....	1 90	@2 00	....		2 96	@2 99	3 05	@3 18½	1 05½
6	1 60	@1 85	†½	1 90	@1 92½	†1¼	1 90	@1 97½	†1¼		2 96	@2 99	3 05	@3 18	1 06¼
7	1 60	@1 85	....	1 90	@1 92½	....	1 90	@1 97½	....		2 96	@2 99	3 05	@3 18	1 06¼
8	1 60	@1 85	.	1 90	@1 92½	....	1 90	@1 92½	....		2 86	@2 99	3 05	@3 18	1 05¼
10	1 60	@1 85	....	1 90	@1 92½	....	1 90	@1 92½	....		2 96	@2 99	3 05	@3 18	1 05¼
11	1 60	@1 80	....	1 90	@1 92½	....	1 90	@1 92½	....		2 92	@2 97	3 05	@3 18	1 03¾
12	1 60	@1 80	†½	1 85	@1 90	†¾	1 85	@1 90	2¾		2 92	@2 97	3 09	@3 23	1 03¾
13	1 60	@1 75	....	1 85	@1 87½	†1¼	1 85	@1 90	....		2 91	@2 95	3 09	@3 23	1 05¾
14	1 60	@1 75	....	1 85	@1 87½	....	1 85	@1 94	....		2 93	@2 95	3 09	@3 23	1 07¾
15	1 60	@1 75	....	1 85	@1 87½	....	1 85	@1 90	....		2 93	@2 95	3 09	@3 23	1 06¾
17	1 60	@1 75	....	1 85	@1 90	†1¼	1 85	@1 90	....		2 93	@2 95	3 09	@3 23	1 06½
18	1 60	@1 75	....	1 85	@1 90	....	1 85	@1 90	....		2 93	@2 95	3 09	@3 23	1 06½
19	1 60	@1 75	....	1 85	@1 90	....	1 85	@1 90	....		2 93	@2 95	3 01	@3 17	1 06½
20	1 60	@1 75	....	1 90	@1 90	†2½	1 85	@1 90	....		2 93	@2 97	3 01	@3 17	1 10
21	1 60	@1 75	....	1 80	@1 87½	†1¼	1 85	@1 90	....		2 89	@3 —	3 03	@3 15	† 05¼
22	1 60	@1 75	....	1 80	@1 87½	....	1 85	@1 90	....		2 89	@2 91	3 03	@3 15	1 06¼
24	1 60	@1 80	*2½	1 80	@1 85	†1¼	1 85	@1 90	....		2 89	@2 91	3 03	@3 15	1 07½
25	1 60	@1 80	....	1 80	@1 85	....	1 85	@1 90	....		2 87	@2 97	3 03	@3 15	1 03½
26	1 60	@1 80	....	1 80	@1 85	....	1 85	@1 90	....		2 89	@2 97	3 03	@3 15	1 03½
Extreme advance..			....			....			....						
Extreme decline..			†7½			†3½			9						

Comparative Prices of Wheat.

1872 Dec	S. F. eHIP.	LIVERPOOL. TELEGRAPH*	LIVERPOOL. MAIL.†	DIFF. BET. S. F. and Teleg'h.	DIFF. BET. Mail and Teleg
24	1 95	2 95@3 01	3 03@3 22	1 11	11
27	1 92½	2 95@3 01	3 05@3 26	1 13½	11
31	2 05	3 08@3 12	3 11@3 33	1 17	12
1873 Jan					
3	2 05	3 12@3 16	3 11@3 33	1 17	8
7	2 11½	3 12@3 16	3 11@3 33	1 10¾	8
10	2 08¾	3 10@3 14	3 07@3 29	1 09¼	6
14	2 02½	2 97@3 01	3 10@3 16	96½	14
17	2 05	3 03@3 05	3 12@3 18	1 10	11
21	2 02½	3 06@3 08	3 07@3 27	1 14½	10
24	2 02½	3 04@3 06	3 05@3 25	1 12½	10
28	1 95		3 03@3 25		
31	1 92½	2 98@3 01	3 01@3 23	1 07½	12½

*—The quotations given by telegraph to the Associated Prees are mainly those of what are called by the agent of said Aesociated Prese Average California Wheat. In a few instances Club are given. These wa have uoted by the mark ‡, except on the 20th of December, when Club was quotod at $3.17, and the difference between the average of the highest quoted of Olub and the lowest quoted of average by telegraph to the Merchants' Exchange, and the prices quoted in the *Mark Lane Express* was four cents.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—Telegraphic quotations of Club wheat.

¶—These differences are those between the meen price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday M., Feb. 26th, 1873.

The Produce market this week has sadly lacked tone, very little being done in any dopartment. But this month is one in which very little business is ever done, all waiting for the coming spring trade. As the time for the closing of our wheat export is now rapidly drawing nigh, and as the advent of the new season, though still distant, is auxiously looked forward to, it is not surprising thet our Produce dealers having a suffi iency of time should discuss the question of the reliability of the telegraph reports, so much agitated last year. The immediate occasion of the discussion was the receipt of communications from the New York and Baltimore Produce Exchenges asking this city to take united action with them in reference to the obtaining of fuller and more correct raports of the European merkets than are now furnished by the Associated Press. Sufficient was elicited to prove the correctness of the position taken by the RURAL PRESS on the subject for five months past. The members of the Exchenge ou comparing the telegraph reports with the Liverpool circulars found, as a general rule, that the telegraph was 4 ccnts per cental lower thau the circulars, and that sometimes the discrepancy was very great. As a result the *Chronicle* to-day states that 4 ceuts per centel should be added to the telegraphic quotations. Some gentlemen in the wheet business here say that the "Merk Lane Express" must give jobbing quotations of wheat in Liverpool. They might as well say that the prices current of the daily papers of this city are retail quotations.

RECEIPTS.—There has been a great falling off in Wheat receipts this week, they not aggregating much more than half those of last. Receipts of Flour were also very slow until the arrival to-day of close on seven thousend quarter sacks, which raised the total to a somewhat higher figure than that of the past week. Barley has come in more slowly from the interior then last week, but the totel receipte have been more than double on accouut of the lerge cargoes from Coast porte. Our receipts of Oats have been slightly increased, as also have those of Corn. The dealers of the interior have not sent as much Potstoes as they sent last week, but with the receipts from Coast ports, the quantity placed on the market has been quadrupled. The receipts of Wool have nearly ceesed, and will be very small until the spring clip has begun to come forward. Thoee of Hides heve been five times as large as those of the previous week. Receipts of Beans and Bran have fallen off from one-third to one-half. Those of Wine have fallen one-half. Those of Hay have been somewhat larger then last week.

We summarize receipts of Bey Produce to date as, 16,789 quarter sacks of Flour; 173,414 centals of Wheat; 2,568 do of Barley; 514 do of Oats; 2,386 do of Potatoes; 125 do of Onions; 1,410 do of Bran; 205 do of Middlings; 290 do of Beans; 357 do of Corn; 17 bales of Wool; 1,386 Hides; 941 tons of Hay; 69 do of Straw; 8,000 gallons of Wine, and 504 do of Brandy.

Receipts of Wheat et Oakland Wharf aggregete 35,000 centals.

The trade in Domestic Produce with Coast ports this week has been much more lively then during the preceding one. We summarize receipts to date, 4,075 centals of Wheat; 8,096 do of Barley; 3,221 do of Corn; 9,575 do of Potetoes; 273 do of Beans; 308 do of Mustard Seed; 1,100 do of Oats; 30 do of Grass Seed; 191 do of Bird Seed; 51 do of Flax Seed; 316 Hides; 3 casks, 24 pipes, and 2 cases of Wine, and 1 barrel of Brendy.

From Oregon the steamere "Ajax" and "Oriflamme" brought us 6,361 half sacks, and 9,179 quarter sacks of Flour, 4,198 centals of Wheat, 4,940 do of Oate, and over 1,200 boxes of Apples, besides 368 centals of Potatoes and other produce.

BARLEY.—There is little change to deuote iu the price of this cereal. The receipts for the lest two weeks have been unwontedly large. We note sales of 2,500 bags of Coast at $1.15 to $1.25; 400 do of Coast at $1.17½; 1,000 do of Coaet at $1.22½; 1,300 do of Bey Feed and Coast at $1.25; 600 do at $1.27½; 500 do of Feed at $1.30; 1,000 do of Bay Brewing at $1.35, and 400 do of Chevalier for eeed at private rates.

FLOUR.—Prices remain as before. Exports have f allen off very much this week, there being only one shipment of 25 barrels, 290 half sacks, and 500 quarter sacks to Tahiti.

HAY.—Receipts this week have been larger thau those of last, but they are of very iudifferent quality. We note sales of a cargo of Wild Oat at $21; 25 tons of fair Wild Oat at $16.50; 25 tons of good Wheat and Tame Wild Oat at $21.50; a cargo of Volunteer mixed at $18.50; 200 bales of fair Wheat at $21; and two emall cargoee of Wild Oat, ona at $19.50 the other at $21.

HOPS.—The market continues dull, there being only sales of 40 bales at 40c to record last week. Latest English advices report prices unchanged.

OATS.—There has been a little more animation in Oats, particularly Oregon, but there le no change in pricee. We have reccived over 40,000 centals this week from Oregon. We note sales of 500 bags of Coast Feed at $2.07½ to $2.12½, 100 do good Feed at $2.13½, 1,900 do of Oregon at $2.15 to $2.20, 300 do of good California at $2.17½, 200 do at $2.20 aud 300 do, good, at $2.22½.

Receipts heve included per "Constantine," to Bristol, 17,351 ceutals; per "Meggie Johnston," to Tahiti, 25 do; "Loch Ken," to Cork, 20,397 do; per "Berkley," to Liverpool, 22,823 do; per "Fleetwing," to Cork, 23,819 do; per "Patrician," to Queeustown, 31,324 do; per "Young America," to Liverpool, 39,785 do; per "La Escosesa," to Cork, 33,589 do; per "Art Union," to Queenstown, 20,253 do; per "Glance," to Cork, 27,621 do, being a total of 10 cargoes and 1 shipment of 236,987 centals, valued at $470,651. Six wheat ships were cleared out today.

POTATOES.—Receipts for the week have been large, aggregating 12,000 centals, principally from Coast ports Humboldt forming one-half of the whole. Prices are as before. We note sales of 4,900 bags of Humboldt at 90c to $1.12½, 500 do of Monterey at 85c aud 1,000 do of Bodega at private rates.

WHEAT.—Coincidentally with a fall iu the rates reported by telegraph, wheat has fallen 5 cents in this markct, and there is now a somewhat lessened demand for shipping grades. Receipte and exports have fallen very much behind previous weeks. Receipts from all quarters last week only aggregate 211,205 centals. According to telegraphic reporte to the Associated Press and to the Merchante' Exchange, wheat in Liverpool has fallen 9 cente during the week, being now only at an average, $2.85. We note sales of 500 bags of Coast at $1.77½; 1 000 do at $1.80; 1,000 do Good Shipping at $1.80; 3,500 do of Fair to Good Shipping at $1.82½; 1,000 do at $1.85; 10,400 do at $1.87½; 5,000 do Milling at $1.90, and 4,260 do Oregon and Seed at private rates.

WOOL.—There is hardly any movcuent iu the market now, and prices are merely nominal. The last sales of Colonial Woole in London present a decline of nearly 5 ceuts as compared with sales in November. The effect hae made itself felt iu Eastern merkets, and here also. Wool which 14 days ago would bring 25 ccnts has now to be sold at a very large reduction from this figure.

GENERAL MERCHANDISE.

Last week has not been very brisk. This ie now the dullest part of the year, and but little business ie done, everyone looking forward to the spring trade, which promises well. Imports eud exporte during the week just closed have been but small comparatively. The latter have aggregated in valuo $522,247, carried in 14 vessels. We are uow exporting Sugar largely. The coal trade is quiet and will be until the opening up of the roeds again. Pig Iron ie going up fast. Rice is active and so is Coffee. Oils are quiet and so is Tobacco.

FRUIT MARKET.

The local supply of apples and pears has been good, but the merket has not been overstocked. Large shipments of bananas arrived from Honolulu during the week, but they have been in very bad order, only 125 bunches being good. The last cargo of Oregon apples was sold to-day; bidding spirited. Sales made at an equivalent of $1.75 per box.

We notica the arrival of 2,500 lbs dried Blackberries from New York. They are very fine and are selling at 15 cents ₱ lb. by the barrel.

FRUIT MAKRET.

Mex. Or. per 1000	25—	@	40
Cal. do	—@	—	
Limes, ₱ M	25 00	@	50—
Cal. Lemons, 1000	$40—	@	50—
Messina do..bx	15	@	—
Bananas, ₱ bnch	—	@	—
Pinaapples, ₱ dz	—	@	—
Apples, eat'g, bx	1 25	@	2 25
" Cooking	1 —	@	2 —
Pears, Eating	2 00	@	2 50
" Cooking	1 50	@	2 —
Pomagran's, ₱ 100	—	@	none
Grapes, Mission	—	@	none
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flama Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—

DRIED FRUIT.

Apples, ₱ lb	5	@	8
Pears, ₱ lb	5	@	8
Peaches, ₱ lb	10	@	12½
Apricots, ₱ lb	—	@	—
Plums, ₱ lb	5	@	8
Pitted, do ₱ lb	15	20@	30
Raisins, ₱ lb	8	@	12½
Black Figs, ₱ lb	8	@	10
White, do	15	@	20

VEGETABLES.

Cabbage, ₱ dz	75	@	—
Garlic, ₱ lb	5	@	—
Groon Peas	12½	@	—
Green Corn ₱ doz	—	@	—
Marrowfat Squash per ton	25—	@	—
Artichokes, ₱ lb	3	@	—
Tomatoes, L A ₱	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	8	@	—
Peppers dry	20	@	—
Okra	20	@	40

DOMESTIC PRODUCE.

Wednesday M., Feb. , 1873.

BEANS.

Beens, sm'l w'ite	4	@	—
do, butter	4½	@	—
do, large, do	4¾	@	—
do, bayo	3½	@	—
uo, pink	4½	@	—
do, pea	5¾	@	—

BROOM CORN.

Per ton	$40	@	120

DAIRY PRODUCE

Butter, Cal. fresh	—	@	—
do, ordin'y roll	30	@	35
do, choica	37½	@	—
do, new firkin	34	@	—
do, packed	—	@	—
do, New York	—	@	—
Cheese, Cal. new	15	@	—
do, Eastern	15	@	16
Eggs, Cal. fresh	28	@	30
do, Oregon	27	@	—
do, Eastern	—	@	—

FEED.

Bran per ton	18 00	@	—
Middlinge	27 50	@	30 —
Hay	15 00	@	23 —
Straw	10	00	@ —
Oil cake meal	30	00	@ —
Corn Meal	$3	00	@ 50—

FLOUR.

Alviso Mills, bbl	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 00
Commer'l Mills	4 50	@	6 00
Golden Gate	4 50	@	6 00
Golden Age	4 50	@	6 00
National Mills	4 50	@	6 00
Santa Clara Mills	4 50	@	6 00
Genes a Mills	4 50	@	6 00
Oregon	4 50	@	6 00
Vallejo Star	4 50	@	6 00
Venus, Oakland	4 50	@	6 00
Stockton City	4 50	@	6 00
Lombard, Sac	4 50	@	6 00

FRESH MEAT.

Beef, fr quality	9	@	—
do, second do	7	@	8
do, third do	5	@	6
Veal	9	@	9½
Mutton	8	@	9
Pork, undressed	5½	@	6¼
do, dressed	8¾	@	9¼

GRAIN, ETC.

Wheat Cal. coast	1 69	@	1 80
do, shipping	1 75	@	1 82½
do, milling	1 75	@	1 85
do, Oregon	1 75	@	1 85
Barley, Dark C'st	1 20	@	—
do, Light	1 22½	@	—
do, Brewing	1 25	@	—
Oats, Coast	2 11	@	—
do, Light	2 15	@	2 20
Corn, White	1 30	@	—
do, Yellow	1 25	@	—
Buckwheat	1 75	@	—
Rye	2 75	@	—

HOPS.

California, 1871 lb	—	@	—
do 1872	50	@	—
Eastern, 1872 lb	6½	@	—

MISCELLANEOUS.

Beeswax per lb	30	@	45
Honey, choice	12	@	14
Los Ang. Honey	15	@	20
Onions	2	@	2½
Flaxseed	3	@	5
Canary do	4½	@	6
Mustard do, white	1½	@	1¾
do, brown	2	@	2½
Peas, Chili	25	@	—
Alfalfa	35	@	—
Ky. Blue Grass	50	@	—
Timothy	—	@	—
Italian Rye	—	@	—
Pirennial do	25	@	—

NUTS.

Peanuts per lb	5	@	8
Pecan nute	10	@	—
Hickory do	10	@	—
Brazil do	18	@	—
Prince Almonds	—	@	—
Cocanuts, ₱ 100	100	00	@ —
Alm'ds h'rd shell	—	@	15
do, soft	23	@	25

POTATOES.

Sweet, per lb	75	@	—
Humboldt	1 05	@	—
Monterey	1	@	—
Tomales	95	@	—

POULTRY AND GAME.

Live Turkeys lb.	17	@	18
Hens, per dz	8 50	@	9 50
Roosters	8 50	@	9 50
Chickens	7 00	@	8 00
Ducks, tame, doz	12—	@	14—
do, Mallard	5 50	@	—
Geese, per pair	3 —	@	3 25
Quail, per doz	2 —	@	2 50
Hare, per doz	4 —	@	4 50
Rabbits, cach	75	@	1 50
Larks, each	50	@	1 00
Doves, per doz	—	@	1 25
Plover, per doz	—	@	50
Curlew, per doz	50	@	1 00
Teal, per doz	—	@	1 50
Snipe, Eng., doz	2—	@	3 00
do, small, doz	50	@	1 00
Venison, per lb	—	@	—

PROVISIONS.

Cal. Bacon, per lb	12	@	13
Eastern do	11½	@	41½
do sugared	12	@	15
Cal. Hams	13	@	15
Eastern do	14½	@	15
Cal. Smoked Beef	11	@	12½

WOOL, ETC.

Choice Nor'n fall	20	@	21
do spring	28	@	30
Seedy	15	@	18
Burry	12	@	14
Oregon	—	@	—
Hides, dry	19	@	20
do green	9	@	9½
Tallow	7 50	@	8 —

GENERAL MERCHANDISE.

BAGS.

Eng. stand. Wh't	15½	@	—
Flour Sacks ½s	16½	@	—
" " ¼s	8½	@	9¼
Stand. Gunnies	17	@	17½
" Wool Sacks	—	@	70
" Barley do	16	@	—
Hessian 40-in gde	—	@	12
do 60	17	@	17½

CANNED GOODS.

Asst'ed Tabia Pie Fruits, in 2½ lb cans	3 75	@	—
Jams & Jellies	4	@	4 25
Pickles ½ gl	3 25	@	—

COAL—Jobbing.

Australian	14 00	@	—
Coose & Bel. Bay	12 00	@	—
Ssettle	12 00	@	—
Cumberl'd, cks	25 00	@	—
do bulk	22 50	@	—
Chila	—	@	—
Lehigh	18 20	@	—
Liverpool	12 50	@	—
West Hartley	16 00	@	—
Scotch	16 00	@	—
Scranton	14 00	@	—
Vancouver's Isl	12 50	@	—
Charcoal, ₱ sk	1 00	@	—

COFFEE.

Coeta Rica per lb	19	@	—
Guatemala	16	@	18
Java	22	@	—
Manilla	17	@	—
Rio	—	@	—
Ground in ce	24	@	—
Chicory	9	@	—

FISH.

Pac. Dry Cod, new bundles, ₱ lb	—	@	—
Salmon in bbls	8 00	@	—
do ½ bbls	5 00	@	—
do 2½ lb cans	—	@	—
do 2lb cans	—	@	—
do 1lb cans	—	@	—
Pick. Cod, bbls	—	@	—
do ½ bbls	4 50	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, bx	₱ lb	—	@ 50
Mack'l, No. 1, ½ bls	—	@	11 50
" Extra	—	@	12 00
" in kits	2 25	@	3 00
" mess	—	@	3 50
" ex. mess	—	@	5 00

NAILS.

Assorted size	5½	@	8 —

OILS.

Pacific Glue Co. Neat F't No. 1	25 00	@	—
Pure	1 20	@	—
Cocoa Nut	60	@	—
Oliva Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	—
China nut in cs	75	@	—
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	55	@	—
Polar, refined	60	@	—
Lard	95	@	—
Coal, refined Pal	40	@	42
Olaphine	40	@	—
Davoa's Bril't	44	@	46
Long Island	42	@	—
Eureka	42½	@	—
Downar Kerose'e	55	@	—
Gas Light Oil	42	@	—

PAINTS.

Stand. Wh. Lead	—	@	10
Whitening	—	@	—
Chalk	—	@	2
Paris White	—	@	2½
Ochre	—	@	2½
Venetian Red	—	@	2¾
Red Lead	—	@	10
Litharge	—	@	10

RICE.

China No. 1, ₱ lb	6½	@	7
do 2, do	5¾	@	6½
Japan	6	@	7
Patna	7	@	—
Hawaiian	8½	@	9

SALT.

Cal. Bay, per ton	8 00	@	10—
Carmen Island	16 00	@	30—
Liverpool fine	25	@	—
do coarse	25 00	@	—

SOAP.

Castile, ₱ lb	12	@	—
Local brands	5½	@	7

SPICES.

Allspice, per lb	17	@	18
Clovee	30	@	—
Cassia	30	@	—
Nutmeg	1 00	@	—
Whole Papper	22	@	—
Ground Allspice	22½	@	—
do Cassia	37½	@	22
do Cloves	30	@	45
do Mustard	25	@	—
do Ginger	22½	@	27
do Pepper	22½	@	—
do Maca	1 20	@	—
do Coffee	23	@	—

SUGAR, ETC.

Cal. Cube per lb	11	@	11¼
Circla A crushad	11	@	11¼
do granuleted	10½	@	11
Golden C	9	@	9½
do Extra	9½	@	9¾
Hawaiian	20	@	22½
Cal. Syrup in bls	32½	@	—
do in ½ bls	35	@	—
do in kegs	40	@	—

TEA.

Oolong, Canton	19	@	25
do Amoy	23	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyuna	60	@	1 00
Gunpo'der, Cant	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TOBACCO.—Jobbing.

Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch dn	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Coon. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fina ct cha'g, gr	8 50	@	9 25
Fine cut chawing, buc'ts	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

LUMBER MARKET.

CARGO PRICES REDWOOD.

Rough, ₱ M	$20	00	
Rough refuse, ₱ M	16	00	
Rough clear, ₱ M	32	50	
Rough clear refuse, M	22	50	
Rustic, ₱ M	33	00	
Rustic, refuse, ₱ M	24	00	
Surfaced, ₱ M	32	50	
Surfaced refuse, ₱ M	22	50	
Flooring, ₱ M	30	00	
Flooring, refuse, ₱ M	20	00	
Beaded flooring, ₱ M	32	50	
Beaded floor, refuse, M	22	50	
Half-inch Siding M	22	50	
Half-inch siding, ref, M	18	00	
Half inch, Surfaced, M	25	00	
Half inch Surf. ref., M	18	00	
Half Inch Battens, M	22	50	
Pickets, rough, ₱ M	14	00	
Pickats, rough, p'ntd	16	00	
Pickals, fancy, p'ntd	22	50	
Shingles, ₱ M	3	00	

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	$25	00	
Flooring and Step, ₱ M	37	50	
Flooring, narrow, ₱ M	40	00	
Flooring, 2d quality, M	30	00	
Laths, ₱ M	4	00	
Furring, ₱ lineal ft		1c	
Rough, ₱ M	$25	00	
Rough refuso, ₱ M	20	00	

REDWOOD—Retail Price.

Rough Pickets, ₱ M	18	00	
Rough Pickets, p'd, M	20	00	
Fancy Pickets, ₱ M	30	00	
Siding, ₱ M	27	50	
Tongued and Grooved, surfaced, ₱ M	40	00	
Do do refuse, ₱ M	27	50	
Half-inch surfaced, M	40	00	
Rustic, ₱ M	42	50	
Battens, ₱ lineal foot		3¼	
Shingles ₱ M	3	00	

THE NEW U. S. MINING LAWS.

The new Laws of 1872, governing the location and purchase of Placer and Quartz Mines and Agricultural Lands in Mining Districts of the U. S., printed in circular sheet, for sale at this office. Single copies, 25 cts. Usual discount to the trade.

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, Feb. 26, 1873.

The price of sole leather continues the same. French stocks have advanced 5 per cent., and importers are firm in their prices.

City Tanned Leather, ₱ lb			28@29
Santa Cruz Leather, ₱ lb			28@29
Country Leather, ₱ lb			25@28
Stockton Leather, ₱ lb			26@29
Jodot, 8 Kil., per doz			$60 00@ —
Jodot, 11 to 19 Kil., per doz			66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			55 00@ 70 00
Lemoine, 16 to 18 Kil., ₱ doz			75 00@ 77 50
Levin, 12 and 13 Kil., per doz			68 00@ 70 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Females, 12 to 13			60 00@ 64 00
Cornellian Females, 14 to 16 Kil			66 00@ 72 00
Ogerau Calf, ₱ doz			54 00@ —
Simon, 18 Kil., ₱ doz			60 00@ 62 00
Simon, 20 Kil. ₱ doz			85 00@ 87 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Calf, 7 and 8 Kil			35 00@ 40 00
French Kips, ₱ lb			1 00@ 1 30
California Kip, ₱ doz			55 00 to 70 00
French Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13

Domestic Economy

Baked Chicken Pudding.—Cut up two young chickens and season them with pepper and salt, a little mace and nutmeg. Put them in a sauce pan with two large spoonsful of butter, and water enough to cover them; stew them gently and when about half cooked take them out and set them away to cool; pour off the gravy and reserve it to be served up separately. In the mean time make a batter, as if for a pudding, of a pound of flour stirred gradually into a quart of milk, six well beaten eggs and added by degrees to the mixture, and a very little salt. Put a layer of chicken in the bottom of the pie dish and pour over it some of the batter, then a layer of the chicken and some more batter, and so on, having a cover on the top. Break an egg into the gravy which you have set away, give it a boil, and send it to the table in a sauce tureen to eat with the pudding.

How to Make Dressing.—Take the liver, heart and gizzard of a turkey or chicken, if such is the meat to be stuffed, preparatory to baking, parboil them, then chop fine with one and one-half pounds of raw salt pork, not fresh-ened, mix with two pounds of bread-crumbs, one tablespoonful of sifted sage, pour on boiling water until it is all thoroughly settled, fill the fowl, and if there is more dressing, put into a tin or earthen dish to bake. Beef hearts are nice stuffed and baked. And a dish of this dressing goes very nicely, if there is no other meat to cook with it. In place of the liver, heart, etc., any bits of fresh meat, either cooked or raw, will answer. Fresh fish are very nice stuffed and baked; place two together, and put dressing between.

Cooking Steak.—This comes from head-quarters and may be considered as near infallibility as human nature can attain. First, get tender steak; no matter what part it is from, so it is tender; let it be three-fourths of an inch thick. Cook it at the last moment when every dish is ready to set on the table. Use a wire broiler if you can get one. Have a hot fire, and when it is crisped on one side turn it over and crisp it on the other. If fat drops and blazes, throw a pinch of salt on the coals. Don't do anything else while it is cooking. Have your plate hot, and a lump of butter melting in the bottom. Put butter on the upper side, and eat in five minutes after cooking. More steak is spoiled by slow cooking than by any other fault.—*The House and Garden.*

Apple Fritters.—This is a favorite dish with many, and often preferred to dumplings. We like them prepared thus: Make a batter, not very stiff, with one quart of milk, three eggs, and flour to bring it to right consistence. Pare and core half a dozen large apples, and chop them to about the size of small peas, and mix them well in the batter. Fry them in lard, as you would do doughnuts. For trimmings, we like powdered sugar best, though good brown sugar will do.

A Simple Cornmeal Pudding.—Stir into a quart of boiling milk the yolks of two eggs, three heaping spoonfuls of meal and half a cup of sugar, well beaten together. Cook five minutes, stirring constantly; remove from the fire, and add the whites, beaten to a white froth. Pour into a pudding dish, and bake one hour in a moderate oven. Serve with cream and sugar.

Spanish Buns.—1¼ pound of flour, ⅓ pound of butter, ⅓ pound of sugar, 4 eggs, 1 glass of brandy, wine and rose water mixed, some currants and ¼ pint of rising. Rub the flour, butter, sugar and cinnamon well together, then add the other ingredients, beat all well together, and stir in enough milk to make it a proper batter. Bake them in tins.

Preserving Meat.—Take ground black pepper, one fourth pound will do for two cwt., a little more or less will do no harm; sprinkle first with pepper until quite black, then salt in the usual way. It adds very much to the flavor likewise. To be used on hams and shoulders.

Water Cake.—One teacup sugar; two eggs; half cup butter; one teacup of water; two cups of flour; two teaspoonfuls of cream tartar; one of soda; beat the butter and eggs to a cream; then add the other ingredients; stir well, and bake quick; flavor with nutmeg, or lemon.

English Buns.—One pound of flour. ¼ pound of sugar, some cinnamon, ⅓ pint of rising; rub them all together and mix them with milk, and four or five drops of pearlash. Wash them after they are baked with sugar and water.

Beefsteak.—Take a round steak and make a dressing. Lay on the meat and sew up the edges. Put this in a dripping-pan with a little water, plenty of butter, a little salt and pepper. Turn the meat and bake both sides.

Very Fine Doughnuts.—Half a tea-cup of butter or lard, 1 teacup of sugar, 1 teacup of sweet milk, 4 eggs, 1 teaspoontul of extract of lemon, or allspice and cloves if preferred, saleratus and cream of tartar.

Corn Biscuit.—One quart of mush, cold or nearly so, one teacupful of butter and flour enough to roll. Roll about one-half inch thick, cut into biscuits and bake to a light brown.

Agricultural Articles.

Ready's Patent Gang Plow.

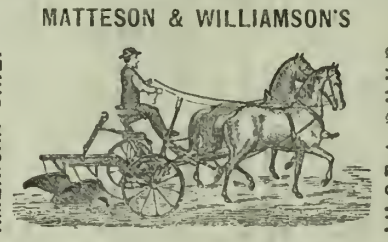


This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

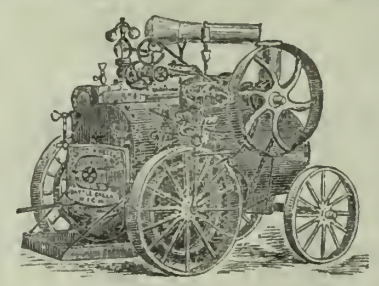
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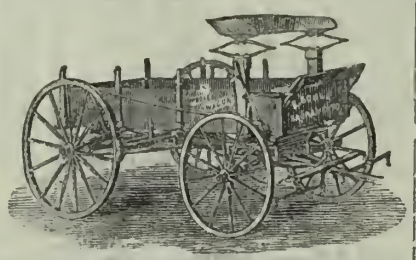
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E. SOULE,
ap22-3m San Quentin, Cal.

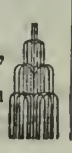
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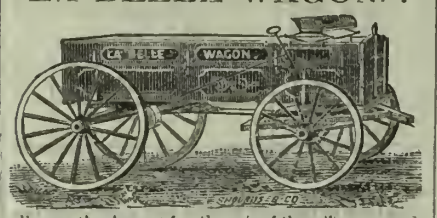
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Spangled Gold and Silver Polish,
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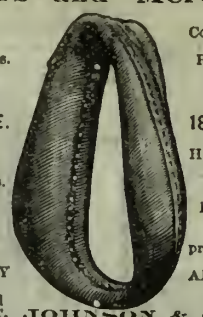
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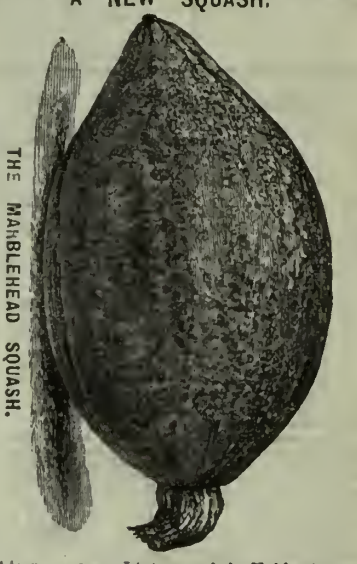
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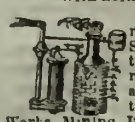
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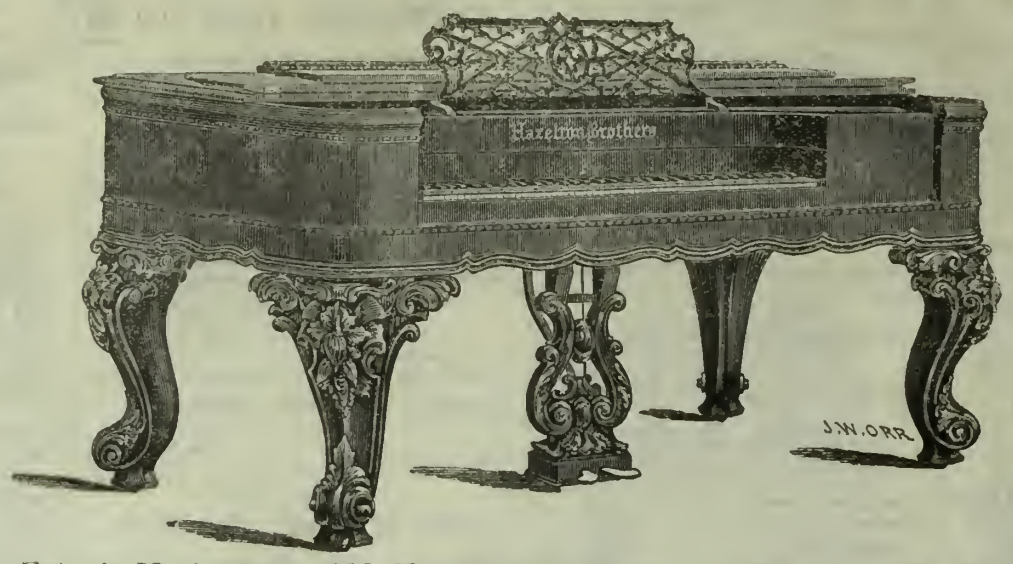
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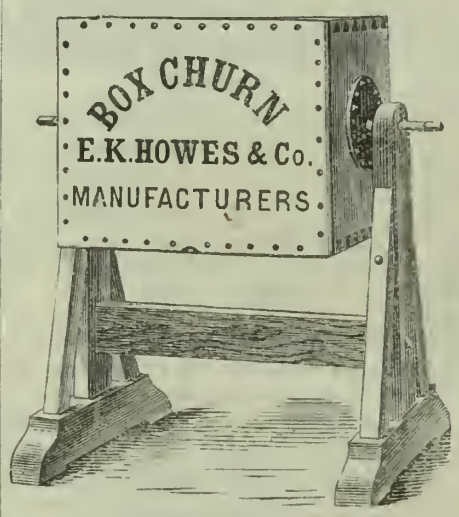
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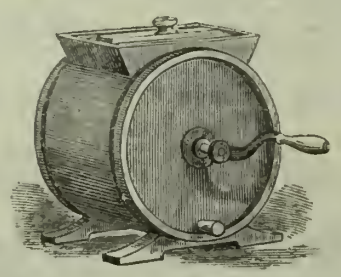
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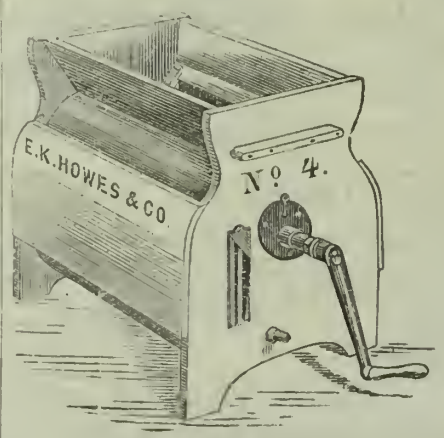


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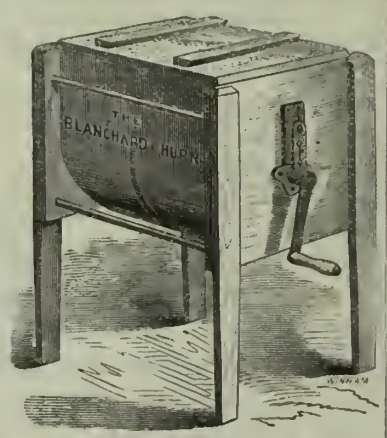


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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MARCH 8, 1873. [Number 10.

A Chapter on Rats.

Wheresoever man goes the rat follows or accompanies him. Town or country are equally agreeable to him. He is a most enterprising traveler, and is continually passing from one country to another. Scarce a ship leaves a port, without taking on board its complement of rats for the voyage. It is thus that this destructive little rodent has distributed himself over the entire civilized world. These remarks apply more particularly to the brown or Norway rat.

Although called the Norway rat, this variety of rodents did not originate in that country, but came from the warm regions of Central Asia. It seems to have taken up its migratory habits about the time of the revival of commerce, near the year 1700. It found its way into southeastern Europe in the early part of that century, where, after multiplying largely, it commenced a northward march into Russia, crossing the Volga in large troops. It reached England in 1730, and France in 1750.

In its march through Europe it drove before it or exterminated the black rat—the native house rat of that continent. In 1775 it "took ship" and crossed the ocean to America, whither it had been preceded by the black rat a few years before; and here also it soon exterminated its black congener, and has reigned since master of the cellar and the sewer.

In unsettled countries the black rat is wild and lives in the woods; but does not multiply rapidly; while in civilized countries it generally avoids the fields and woods, conforms itself to the customs of civilization—dwelling in artificial homes. Both these varieties enter your house, a tenant at will—their will, not yours—shares in your food, and holds nightly revels with the belles of rat-land, in the innermost recesses of your dwelling. Their sagacity in securing food and avoiding detection is most wonderful. In this respect they approach nearer to certain classes of the human species than any other animal.

The black rat is much more timid than the brown, and dislikes burrowing. He prefers the upper parts of dwellings to cellars or any low, filthy places. He is the aristocrat of the rat tribe; is less gregarious than others, and travels in small, select parties. Of course he is not a fighting character. On the contrary, the brown rat is very ferocious, fights and travels in large companies, and pursues



THE BATTLE OF THE RATS.

war to the death against his enemies.

Our illustration presents a view of a lively combat between a party of brown and black rats—the latter having evidently been surprised at a convivial entertainment in the corn crib of some Western farmer. Their mode of battle and quick dispatch has been vividly portrayed by our artist.

The black rat never found its way to California—his race, on this continent, was cut short by the break in human habitations in the "far West" of the Atlantic States, where his "forlorn hope," as an advance guard, was overtaken by the vindictive pursuit of his ancient enemy.

The early residents of San Francisco say that the old Mission and the early dwellings in the city proper, were occupied by a variety of *white rats*; but as no specimens have ever been noticed by our scientists, the inference is that the "white rats" were nothing more than a variety of the brown, which, at that time, had been but sparsely introduced by transient ships coming to this Coast with supplies for the early Jesuit missionary settlements, and stopping to gather hides for a return cargo. This supposition gathers strength from the fact that the brown rat is prone to exhibit this variation of color, whenever it becomes isolated, or for any reason ceases to multiply rapidly—a condition that was well fulfilled during the period anterior to the advent of the gold-hunters, when civilized habitations were so scarce here, and because that aristocratic variety of the rat family is extremely loth to remain with dwellers in huts.

The predominating native rat on this Coast is the *Mus Californicus*,—commonly known as the short-tailed rat,—a variety of the wood rat, which, from the disinclination of the brown rat to follow into outlying bushes or woods, never has, and probably never will be exterminated by the new-comer. This rat, consequently, is still found in great abundance, especially all along the Coast Range, both in mountain and valley, where it builds mounds of sticks, leaves, etc., often ten feet in hight and twenty in diameter at the base. These mounds serve as convenient retreats for the rodents from their natural enemies, and their elevation above the surface of the earth furnishes a safe retreat in case of overflow.

The omnipresent brown rat, however, has driven this native well out of all the city and village sites, and, for the last two decades, has made itself unpleasantly abundant, wherever, throughout the Pacific Coast, the Anglo Saxon has planted his homestead.

PLANT GARDENS.—Our offer of seeds at half the regular prices, to those who are willing to cultivate their own gardens, is not to be looked upon simply for the amount of money it may save to our subscribers, for this would be of small moment to them and of no possible consequence to us. But we wish to induce the planting of vegetable and flower gardens everywhere, for we are certain that the returns and benefits derived therefrom, will be a hundred fold greater than merely the saving of a dollar or two in buying seeds. We hope the inducements we offer and the efforts we are making will be the means of starting up domestic gardening "all along the line."

Fashionable Pedigree.

Are not some of our breeders of fine stock, in their eagerness to maintain a fashionable pedigree for their animals upon the herd-books of the country, in some instances overlooking the points of form and constitution that may be brought out by the peculiar climate of the country and the high and perfect keeping of the animals?

Short-horns, not the best animals that England had grown, but the best that breeders would sell, were early introduced into the United States, and from these have sprung a progeny that recently in several instances have been purchased by English breeders of Short-horns for the improvement of English stock.

This has been done because the American animal actually shows points of excellence superior to the best English production. Now suppose the pedigree of these animals had been entirely lost by an omission to keep a perfect entry and record upon any one of the herd books of the country, would it or should it throw a cloud upon the genuineness or purity of the animal's blood, when the judgment of the best of English breeders pronounce it good enough to go back to England for the improvement of their best stock?

It is senseless to assume that the first Short-horn of England's production was the very best of its breed, and that all which has been done since is but the keeping of the blood pure. We know that the superiority of the breed was the result of breeding over and over again from the best animals, those possessing the points of excellence it was desired to perpetuate, and it was done wholly regardless of pedigree; because the progeny was expected to be, and in most cases was, superior to the progenitors. Why then boast of pedigree? Nor was there any such boast, or any care in regard to what the pedigree of the animal was so long as the progeny were being improved by careful crossing and selections of the best animals of the same breed.

But when it was thought that the breed had been brought up to the highest standard of excellence it was possible to attain, then and not till then do we go back for pedigree to establish the purity or value of the Short-horn. Now if by judicious crossing, superior climate and feed we can produce a better animal than those we breed from, what matters it whether the pedigree can be traced back to inferior animals or not?

We are opposed as any one can be to the selling of half-blooded or graded stock for pure, and believe that there is little of honor left in the man who will do it, and that great wrong is sometimes perpetrated by dealers in so doing, and yet we believe if the animal possesses superior points to its progenitors, an improvement in some instances might result from a judicious breeding regardless of pedigree.

CORRESPONDENCE.

Southern California.

EDS. PRESS:—The time is approaching when this portion of Southern California will turn the tables of the statisticans, as to production and exportation of many staples that now figure up largely in our list of imports. What a comment it is upon home industries to see figs, raisins, almonds and many other articles of prime utility, that are produced in perfection in this—blessed and sunny clime—brought by many trans-shipments from Mediterranean ports, to swell useless taxation, when so manifold a saving could be effected by their home production.

Mr. Geo. Lord exhibited a box, 50 pounds, of raisins, at the last Fair in this county, which took the premium, and which would compare favorably with any imported. Now that it is found that the vine is better as to quality of fruit upon irrigated lands, the increase of vineyards for raisin grapes will multiply with a constantly increasing ratio. There are improvements visible also in the orange. A tree in the grounds of D. B. Wilson, said to have come from the Island of Como, four years from seed, with fourteen well-formed oranges upon it. This is a great gain in time, as most of the trees hereabout do not bear until seven or eight years old. What can be done in spite of obstacles is seen in the Anaheim settlement, commenced in 1857 by fifty German emmigrants, with little or no capital, and who, the first five years, eked out a bare subsistance, and were laughed at by the ranch owners who sold them the poorest land, that was worthless comparatively; now those fifty are five hundred, and can buy those who retained the great stretch of rich pasture land, many times over. There is twelve hundred acres of the most neatly kept vineyards on the continent, bringing an income of not less than $100 per acre, to say nothing of the peach, apricot, orange and lemon, fig and walnut, patches of alfalfa, and the never omited vegetable garden, making altogether one of the most home-like pictures of rural prosperity imaginable.

And then such a climate! talk about Italy, Switzerland, Niece or Mentone—any of the famed resorts for invalids in Europe. From tabular statements, prepared by a gentleman who spent many years abroad in search of health, we gather data that shows the climatic conditions of Southern California to be every way superior. If space permitted, the tables of the thermometer and hygrometer would be given, as carefully taken in these weary years of patient search and research to find some healing balm in air or water to stay the dread destroyer, consumption. After a hopeless search elsewhere, as a last resort, this wanderer turned toward this Pacific slope and finds relief when hardly expected.

At Anaheim, with an altitude of only 140 feet above the ocean, the record shows a difference between wet and dry bulb of 5° only; while the difference in the best foreign resorts is no better, and between sunshine and shade in Vivay, Clasens, Montreux, and some other European resorts, reaches 35°. I venture to quote the language of this gentleman (Frances S. Miles), in answer to inquiries of a friend as to the climate of Southern California for invalids:

"You ask me for some account of the climatic differences between some European and American winter resorts, and I send this to you, hoping that others may benefit by the information, as I might have done, had I known what I now know; and I again repeat with more confidence than ever, that had I come to California instead of going abroad, to-day I should be a well man."

The above was accompanied by tabular statements, intelligently compared by one who spared neither time nor money to obtain the exact truth, and who now settles down in Los Angeles County as combining more advantages as an economic and healthy place of residence for invalids, especially those suffering with pulmonary difficulties, than any known portion of the world.

The Santa Ana.

Generally land is plentiful, and considering all that may be done with it, reasonable in price. There are some substantial improvements too in this Santa Ana region. Mr. Thos. Casad has an earthquake-proof house, two stories high, built of brick, in form of an L, with cement foundation 4 feet thick. Everything constructed to last, and with a view to solid comfort. This man combines a scientific knowledge with practical utility, and hides under a rough exterior a more than average ability and disposition to co-operate with any or all good citizens for so thorough a system of co-operative industries as shall place California in the very van of truly free and of course self-sustaining States.

On the evening of the first of this month (Feb.) there began to fall one of the best rains that has been known for years in Southern California, and upon all land that had been properly prepared to receive it, not a drop was wasted. As far as heard from the rain-storm was general all over the State, and in some of the mountain districts, or where the water could not be taken up by the soil, resulted in raising the streams so as to be impassable for a short time.

To us of the south this was most welcome, and timely, for many were beginning to fear another drouth. Speaking of drouth, reminds us that some of the oldest inhabitants of Southern California, agree that previous to 1859 there had not been known anything like a scarcity of rain and feed, for thirty years, and it is devoutly to be prayed for that no more successions of dry seasons will affect us, until we are better prepared.

But there is one consolation in any case, which is, that with the amount of rainfall which visits some countries, this might be as unhealthy as the most ambitious M. D. could desire, whereas, now, those people come here to regain their health, lost in the ardous pursuit of their profession in the more malarious regions.

There are people residing in this section however that are so content with the country and the seasons, wet or dry, that they would not exchange life in this favored land even if it is accompained by the utmost poverty, for the best estates east of the Rocky mountains, and be compelled to endure again the inhospitable climate of the Atlantic or Western States.

F. M. SHAW.

San Bernardino, Feb. 7th, 1873.

From Lake County.

In passing from Potter Valley across the mountains to Lake county, our attention was directed to the dense growth of chapparal and the large proportion of the country covered with it.

A good part of the mountain sides were covered so thickly that a man would have to crawl through on his hands and knees.

On reaching the head of Bachelor Valley we found Mr. W. W. Meredith just embarking in the goat business with 150 natives and one of Gilmore's best Angora bucks. He says the goats seem to prefer what no other stock will touch at all. The manzanita brush is a sweet morsel for them and if they can climb some overhanging rock and browse the twigs from the top of a high tree so much the better.

Hell's Point.

This is the name of an immense rock in sight of Mr. M's house, which is a favorite resort for the goats. They sleep every night on the very summit.

Bachelor Valley.

This is at the head of Clear Lake. It is rather irregular in shape and not of very great extent, but it has some very fine land that gives satisfactory results with almost any crop. As is the general rule with all this section of the State they do best in a dry year. They are sure of rain enough for a fair crop always. This year has been very favorable for getting in crops, and we have heard it estimated in many places through this region, that three times as much grain has been put in as was sown last year.

Upper Lake.

This is a town lately started near the head of Clear Lake, consisting of two stores, blacksmith and wagon shop, hotel, livery stable, saloon, etc. There seems to be considerable building planned for the coming spring.

At Lakeport we found quite a thriving town, with a new Court House, beautifully located at the bend of the lake, with the Uncle Sam mountain in full view. In estimating distances you will soon realize why this is called Clear Lake. The opposite shore appears about three miles away; the survey says it is eight. From Lakeport daily stages run to Cloverdale and to Calistoga; they pass any number of springs Any one who cannot find water to suit him in Lake county must be hard to please.

Riding up to the residence of that thrifty farmer, W. M. Stonebraker, we saw a great many deer horns about, and, upon inquiry, we found that he has taken an odd spell at deer shooting now and then for the past 24 years. In the course of that time he has killed no less than three thousand deer.

He is very careful in everything, and no one in that section seems to think he has counted one deer to many. He has a rifle made by Billinghurst of Rochester, N. Y., with which he can kill a deer about as far as he can see him. With the case and mountings it cost the modest sum of $300. We understood him to say that there were thirty such guns in Lake county. It is generally claimed that there are more good guns, good dogs and crack shots, than in any other county in the State.

Kelseyville

Is near the foot of Uncle Sam and the trading town for quite a thriving valley. The mines of various kinds take a good part of the produce of this county, the stages and hotels another part and the farmers who live near the railroad draw off their own wheat and sell it when they go for their goods and buy wheat for their own flour of the farmers who live nearer the mills.

Thus it happens that while a great deal of grain is raised here they are reasonably independent of the outside world for the regulation of prices.

Directing our steps towards Calistoga we pass through a fine mountain valley with clear trout streams and two or three very handsome country homes. Here is Glenbrook or Basset's ranch. Two parties began farming here a few years since and have been gradually improving their place and accommodations until they now calculate upon having about 50 guests through the summer season. All the luxuries of country living, exploring the country round for natural curiosities, riding to the mines, springs, and geysers, hunting and trout fishing are in order here. The proprietors have lately purchased the stage line to Calistoga and business men from the city stopping here find it a great convenience to be able to get their daily mails.

All the way to Calistoga we kept hearing of new springs and new mines in every direction. It would take no small space to tell what the springs will cure or what the mines will yield.

In passing through Napa county, we marked the large and complete vineyards and wine cellars of Mr. Krug, at St. Helena. From the perfection of his arrangements and the evident care displayed in each department, we do not wonder at the high reputation of his wine.

In conversing with Mr. C. Backus we were much pleased to find how carefully and thoroughly they are studying everything connected with the wine business. Though there is considerable grain grown yet in Napa valley, viniculture is fast becoming the leading interest.

C.

Letter from Nevada City.

EDITORS PRESS:—I hope to please your readers by sending you a few items and some information from this part of the State.

In the first place, and without the least attempt at courting your favor, let me tell you that I hardly know of a more suitable paper for the farmer's home-circle, in fact, of any one desirous of instruction, than the

Rural Press.

Of proper size, nicely printed, with hardly any typo's blunders, full of reading matter, upon good, useful, and most interesting subjects, with everything in its place, and always *in time*, that is, with us up here. I have come to the conclusion that I cannot do without it, and therefore send you another year's subscription, with my most sincere wishes that you may increase *ad infinitum* your list of subscribers. I would like to see the PRESS more extensively taken and read about here, for although

Nevada County

Is *par excellence* a mining county, however agriculture is making a rapid stride toward a permanent establishment among us, and in the course of time, with better lines of communication, it might be able to produce, to a considerable extent, certain staples, such as fruit, wine, brandy, silk, etc. It was right on the hills surrounding this place, that Mr. Siebert raised the wine for which he obtained the first premium at the Mechanics' Fair at San Francisco several years ago. And I have tasted brandy four years old, manufactured from grapes raised in this County, that was really good, and my opinion, corroborated by that of others, was, that shipped to France to be degusted there by connoisseurs, they would hardly believe that such an article was raised in California. The aroma is very pleasing, different from that of genuine good Cognac, but not inferior to it. By the way, let me tell you, that I hail right from the brandy district of France, having been born on the banks of the Charente, and I have had many good chances of tasting genuine good Coguac.

Speaking of brandy, I will now allude to a passage of the San José Farmers' Clubs reports as published in the RURAL of February 15th.

I mean the one making President Casey say about the question whether there was anything immoral in farmers, in raising grapes for wine purposes, that France, the great

Wine-making Nation,

Is the greatest nation of drunkeness in the world. This I will not call a gross libel on France, but simply shows gross ignorance on the part of the said speaker. On the contrary, he is evidently speaking from mere hearsay, or information gotten up for some "very reliable" temperance lecture, for he certainly could never have visited that famed land. Just to set at naught Mr. Casey's assertion, I will give you some statistics on deaths caused by hard drinking in all the civilized countries. England leads them all, for in that unhappy land 50,000 persons, including 12,000 women, die yearly of hard drinking (no grape vines, you know, are cultivated in England, ale and whiskey being their favorite beverage;) 20,000 in the Empire of Germany; 10,000 in Russia; in the United States, according to Dr. Gibbon, of San Francisco, 300,000 died in eight years of it, making over 36,000 a year; hardly any deaths from that source are recorded in Italy, Spain and Portugal, all wine-drinking countries, while in France the official statistics put it at 1,500; and mark, mostly caused by absinthe, gin or brandy, and generally drank in large cities and sea ports. These figures which I give you are reliable, most of them official, and they need no comments, as far as the "great wine-drinking nation"—as Mr. Casey says about France—is concerned,

Of all the staples raised, or to be raised profitably in this County, silk and silkworm eggs, might in a short time be the foremost of all; for, if silk culture becomes in California a permanently established industry, or if the malady among the silkworms in Europe keeps on unabated, as at present, the infection reaching even cartoons imported from Japan, people in this latitude, I am satisfied, will find a most profitable market for their silkworm eggs, if the latter are properly prepared. In all those countries where eggs from this place have been tried, as in California, France, Mexico, etc., they have been found to hatch well and the worms to be healthy and vigorous. In fact, all over silk-raising countries, mountain eggs have always been, and are mostly the only ones employed in the plains and valleys; and I say that here, in California, people will have to do likewise and use none but eggs raised in the mountains. I have myself introduced in California two of the

Finest Races of Silkworms

Known in France and Italy; one from the Alps, and the other from the Cevennes, the latter being the famous Riom race. Having already given a description of both in the RURAL PRESS, I will speak of them but briefly in this letter; however, having recognized their superior qualities of shape, weight of cocoons, beauty of color, fineness of the thread, and robustness of the worms (fed with leaves of rose-leaved and japonica varieties of the alba family), that desiring to have them propagated in California, I offer to any of your readers ready to engage in the silk business, to send them free, on reception of a three cent postage stamp for mailing the eggs, a small quantity of eggs, as many as one to two thousand eggs, of those two most beautiful races. Those wishing a larger quantity would have to buy them. Nevada is a splendid place in which to keep silkworms eggs; for instance, at this time of writing I have all my eggs exposed to the frost, and I guarantee that the worms raised from them will be healthy and robust.

About Silkworm Eggs.

Here is a little information on that subject that, I am sure, will prove valuable to some of your readers. The eggs must be laid either on cotton cloth, strong paper or pasteboard; for exportation, cloth is the best, nailed on a small wood frame of the following size: 12 inches long, by 9 inches wide, so that each cartoon will hold either 25, 28 or 30 grains, (28 grains is the American ounce), the weight of the cartoon has first to be marked on the side of the frame, so as hereafter to know how much of eggs the cartoon holds, the date of the laying of the eggs, color, and race of cocoons, have also to be marked on the frame. All this is indispensable for exportation, and besides samples of cocoons have to be sent along with the cartoons of eggs. Here is another recommendation for silkgrowers.

Silkworm eggs, as has been repeatedly proven, have to go through four distinct periods, viz.: the first, from the day the moth lays her eggs to 21st of July; the second, since the 21st of July to the 25th of December; the third, from the 25th of December to the 25th of January; and the fourth, from the 25th of January to the hatching of the eggs. To have the eggs shipped through the first period, that is, in a moving condition, either on the back of a mule or in a wagon, or on board a vessel, is very detrimental to the eggs, and one of the main causes of bad hatching. The best time to move to a market such fragile merchandise, is from August to December, that is, through the five latter months of the year, more particularly for a long distance.

I will wind up this letter by giving you some figures on the

Rainfall in Nevada.

I keep a Tennent's rain-gauge, having Dr. Hunt's improvements, which consists in a tin apron soldered to the neck of the funnel, so as to prevent any water getting in through that way. Then I have my gauge placed on the top of the hill where I reside, while that of the South Yuba Co. in this town is placed on the roof of a low shanty, back of their office. Here are the correct figures:

	INCHES.
October	0.55
November	3.16
December	11.49
January	3.87
February (up to the 19th)	6.77
Total for the season	25.83

—about twenty-six inches. This month we had two heavy snow storms, with sixteen inches of snow on the ground out of a fall of forty inches.

FELIX GILLET.

Nevada City, Feb. 21st, 1873.

A New Wheat.

EDITORS PRESS:—I forward to your address, by mail, samples of wheat raised near this place by Mr. William Van Woert.

In 1869, whilst cutting a crop of barley for one of his neighbors Mr. Van Woert observed some scattering heads of large fine looking wheat scattered through the barley of which he gathered about half gill, which he planted in February 1870.

Mr. V. harvested this season 230 bushels, being the result of three plantings from the half gill.

This wheat is a bearded variety. Stands well on summer fallow, straw and chaff very white, with a light velvety substance covering the entire chaff.

A small sample was on exhibition at the State Fair though not in sufficient quantity to exhibit for premium. The committee reported very favorable, and recommended very highly to the farmers throughout the State; It also was awarded the first premium at the Northern District Fair. In the absence of the real name it has been called the "Pride of Butte."

A. J. STARLING,

Nord, Butte Co., Feb. 24th.

Floriculture.

Viola Tricolor Pansy.

"There is a little flower that's found
In almost every garden ground:
'Tis lowly, but 'tis sweet;
And if its name (Heartse se) expresses its power,
A more invaluable flower
You'll never, never meet."

The Pansy was introduced into the floricultural world for special culture, in the year 1812. Since then it has passed through many gradations of improvements.

We have many sweet species of Violets in the United States but this beautiful flower excels them all. Its variable tints are scarcely less numerous than the names that have been conferred upon it. The name of Pansy is a corruption of the French name Pensé, though in floral language is adopted by them as the Forget-me-not. Nature sports as much with this little flower as she does with the features of the human countenance, and you may as well seek for two faces alike as search for Pansies of the same tint. The most brilliant colors of the artist appear dull when compared with that of the Pansy.

When seen alone, the flower must be noticed with admiration; yet it does not make a figure unless plauted in large clumps, but when a bed or plot of rising ground is covered with these flowers, the appearance cannot be excelled by anything the finest artifice can do in gold and purple or red and white, black or blue, and a variety of other colors. The seeds may be sown at almost any season of the year. Those sown late in the autnmn blossom early, whilst those sown in the early spring will flower during summer.

The flowers are in the greatest perfection in April, May and June. The burning sun of summer is unfavorable for their greatest beauty, but in autumn they come out in all their beauty and perfection. If planted where they are a little shaded from the hot sun, the flower will be large.

To give good flowers, the plant must be vigorous and make a rapid growth. No flower is more easily ruined by ill-treatment or adverse circumstances. The fancy kiuds are of fiue habit, great beauty, and are well adapted to our climate.

The Pansy is a flower that bears transplanting, with but little trouble, and if the branches are cut off when the beauty of blossom is past, they will send out fresh branches, and continue to flower throughout the next year; but when suffered to ripen the seed, the plant generally dies. The plants have been frequently kept alive by this treatment, and transplantiug rather adds to their beauty than otherwise. The soil in which you intend to plant your Pansies should be well pulverized, and manured with well-decomposed stable or cow-dung.

The Pansy will grow well in any soil, but thrives best in a rich, light and loomy compost. The self-grown plants degenerate very rapidly, producing ouly small, dingy flowers. The perfume is too weak wheu taken singly, but a cluster of blossoms gives out an agreeable fragrance.

It is a native of most parts of Europe. This flower was held in such high estimation in olden times that one of the prizes of the floral games consisted of a Goldon Violet. The Pansy is the emblem of modesty.

Master W. A. Peyal.

Oakland, Feb. 10th, 1873.

The Honeysuckle as a Standard.—A writer in *The Villa Gardener* thinks that the honeysuckle is one of the most regularly flowered climbers in cultivation, taking rank for effect, and surpassing in many points—odor for instance—even the gorgeously colored clematises, which are in every modern garden. As a standard, the honeysuckle merits the very foremost place in our villa gardens. "We have seen it with thonsands of flower umbels in pale yellow and pale pink, decorating villa grouuds in a way that no siugle plant in the month of July can do."

It is scarcely possible, in words, to portray its extreme beauty and effectiveness.

Buy a plant of it, (cost uot 50 cents,) train or tie it to a stout stake, as one would do a standard rose; prune it not too severely, but in the way a Hybrid China Rose ought to be done; give it a good soil to grow in, and it needs no further attontion. It will grow into a plant that will astonish, by its flowering capacity, thousands and tens of thousands who have not seen it so trained.

Flowers.—In the beautiful flowers which so cheer and solace us, which so minister to our ideality, we recognize dim shadows of that ineffable beauty which is the harmony of the Divine Perfections. Let us all, then, cultivate flowers to the extent of our ability—let the old and the young, the male and tho female, all the members of the family, have a hand in it, as they have leisure and strength, and see if it does not have a refining and elevating influence—sweetening the bitternesses, softening the asperities and harmonizing the disoords of family life.

Freezing Plants Without Injury. — The *Gardener's Monthly* reports a florist who winters the tenderest roses in pots in a house without any fire, though the temperature goes below zero and the plants most of the time are frozen solid. The secret is in watering as regularly as through the summer.

Stock Range.

The California Thoroughbred Cattle Breeders' Association.

Editors Press:—Having read in your last issue a communication by "Subsoil," relating in part to the above convention, I propose saying a few words in reply thereto, and endeavor if possible to correct his (as he admits) crude views on that subject.

"Subsoil" in effect says: "The title by which that convention was known—'Convention of Shorthorn Durham Stock Breeders'—is funny enough, almost to be ridiculous. The name adopted by the convention, *i. e.*, 'The California Thoroughbred Cattle Breeders' Association' is a decided improvement, but with all deference to the beginning and wisdom of that convention there is yet room for improvement in that very name."

It is a great pity that "Subsoil," instead of remaining "underground," had not attended the convention, whereby he would—for a brief interval at least—have had his eyes, ears and head generally cleared of the dust which in his subterranean abode has clouded his uuderstanding.

Had he beeu present or even read the report of the meeting intelligently, he would have learned that a number of gentlemen, largely engaged iu the breeding of thoroughbrod Durham cattle, met last fall iu Sacramento and proposed the organization of a society, the primary, if not sole object of which, was to be the fostering aud promotion of the interests of Durham cattle in Califoruia, as already had been donc in many of the States. At the subsequent meeting held here, and when the society was founded on a permauent basis, a concession was made whereby breeders of all classes of thoroughbred cattle were admitted and the name altered accordingly.

Under the circumstances therefore I do not see that a more appropriate uame could have been given it iu the first iustance, nor how its present denomiuation could be changed to advantage, as it expresses simply what the society purports to be. I am therefore utterly at a loss as to what "Subsoil" means by saying that the title is almost funny enough to be ridiculous; indeed, if we are to accept it as a sample of "Subsoil's" wit, I very much fear he would find it beyond his powers either "to point a joke or adorn a convention." It would have been funny indeed, nay, even ridiculous if those gentlemen, conveniug in the interests of thoroughbred cattle exclusively, had called themselves, or rather their society, the Farmers' State Convention or Subsoil Cabbage Association.

The truth of the matter is that "Subsoil" is so completely muddled in his ideas that it is difficult to grasp at his meaning. He ridicules the name of a society when he really means to exclaim against its object. He strikes at the shadow when he fain would hit the substance. He loudly inveighs against any distinction being made between cattle, horses, sheep and hogs. He decries the cattle breeders' association as a subdivision of interests to the exclusion and positive detriment of other interests of equal importance and consequently to be regarded as an impolitic movement. "Have not the people at large," he says, "an iuterest in the breeding and raisiug of good stock, even down to the shepherds dog."

Now what is the natural influence that any reader would draw from this tirade? Would it not be supposed bnt that one association of this uature was allowed by the laws of the State, and that the cattle breeders had barely monopolized the right for their own purposes? May I ask "Subsoil" what is to preveut horse, and sheep, and hog breeders from organizing similar societies? If there are enough who take an interest in the mattar, let them by all means bring the happy result about, and they will not lack for support. And I contend that those several societies would not constitute a subdivision of interests, but that each would be an integral part—complete in itself—yet all together forming a united and harmonious whole. Moreover, such subdivision leads to greater and more perfect results, as is the case with subdivision of labor, for each being confined to one special interest, more time can be devoted to it and a better opportunity is afforded of arriving at a thorough knowledge of it.

In conclusion I entertain but little fear of Mr. Jesse D. Carr and other members acccpting "Subsoil's" suggestion to merge the cattle breeders' association into a farmers' State conveution, for the simple reason that such a convention would embrace so wido and varied a field of inquiry that its sessions would either have to be prolonged for an indefiuite period, or the subjects brought under discussion would have to be treated iu a most superficial and unsatisfactory manner. "Subsoil," please subside, *sub silentio*.

A Member of the C. T. C. B. A.

San Francisco, Feb. 25th, 1873.

Miscellaneous.

Do Plants Exhale Carbonic Acid?

Plants have commonly been thought to differ from animals in the gases which they secrete; the animals parting with carbonic acid, while the plant gave out oxygen. Dr. J. C. Draper, of New York, however, maintains that all living things, whether animal or plant, absorb oxygen and give out carbonic acid; and that the life of the plant is one continuous drinking in of oxygen gas. Having grown plants similarly nourished in the dark and in sunlight, he found that all the same parts were produced in both cases almost at the same times, and that the slightly slower evolution of the series grown in the dark is marked by a slightly smaller weight, while the same plant measured by night and by day grows slightly faster in darkness than in sunlight. The roots of plants grown under both circumstances throw out the same kind of excrement. Therefore, as the evolution and weight and root-secretion agree, he urges that the carbonic acid has been in both cases thrown off as a consequence of growth, and has never been absorbed by the roots and then given out as vapor from the leaves. In confervæ and fungi, which, like seedlings grown in the dark, never give out oxygen, he appears to think that the carbonic acid they seem to give off is really only the carbon of the air left around the plant as a consequence of the rapidity with which the oxygen is absorbed; and when plants are producing their flowers and seeds, the rate at which they seem to part with carbonic acid is greater than with many animals at any time. Oxygen is given off only from the green parts of plants and trees—the leaves, twigs and young shoots; and only when the sunlight is falling on the leaves. Dr. Draper's argument might have been made even more convincing if he had availed himself of Boussingault's experiments, which showed that carbonic acid is decomposed day and night, by green leaves, in the ratio of one part by night to about sixteen parts by day.

Are We Witnessing the Formation of New Suns?

Some interesting observations have recently been made in regard to the colored stars about *Kappa Crucis*. Mr. H. C. Russel, of the Sydney Observatory sends to *Nature* an account of some observatious which he has made in that portion of the heavens, and ventures the assertion that astronomers will gain fresh knowledge, especially with regard to the Nebnlar theory, by careful examinations of the phenomena developed in the direction of that beautiful cluster of stars.

Mr. Russel holds that it is beyond all question that, from some cause, there has, as in the direction of *eta* Argus, been recently developed a considerable increase of brilliancy about *Kappa Crucis;* also that there has been not only there, but in other directions iu the heavens, a sensible amount of "clearing up" within the last twenty-five years. In other words that the process of the formation of new systems of stars is actually going on, before the eyes of the astronomer; that suns, by careful observations, may be detected in all stages of progress from the greatest nebulosity, "without form and void," to the finished sun, whatever that may be.

It is in this view, Mr. Russel thinks, we may find a rational explanation of the appearance of new stars in and about *Kappa Crucis*. But, whether we admit this or not, one thing is certain; we are not yet prepared to say, with certainty, that such changes are not going on in space, as will suffice for a full explanation of the undonbted appearance of tho small new stars above alluded to, if not of the greater changes about *eta* Argus.

Ancient Timber.—Probably the oldest timber in the world, which has been subjected to the use of man, is that which is found in the ancient temples of Egypt. It is found in connection with stone-work, which is known to be at least 4,000 years old. This wood, and the only wood used in the construction of the temple, is in the form of ties, holding tho end of one stone to another in its upper surface. When two blocks were laid in place, then it appears that an excavation about an inch deep was made in each block, into which an hour-glass shaped tio was driven. It is therefore very difficult to force any stoue from its position. The ties appear to have been the tamarisk, or chittim wood, of which the ark was constructed, a sacred tree in ancient Egypt, and now very rarely found in tho valley of the Nile. Those dovetailed ties are just as sound now as on the day of their insortiou. Although fuel is extremely scarce in that country, those bits of wood are not large enough to make it an object with Arabs to heave off layer after layer of heavy stone for so small a prize. Had they been of bronze, half the old temples would have been destroyed ages ago, so precious would they have been for various purposes.

Solar Flames—A Fearful Possibility.

In the course of a lecture on solar phenomena, delivered on Thursday Evening by Prof. Draper, before the University of New York, the speaker said: "There is one reflection connected with these solar eruptions that has a dire interest for us. If it be true, and there seems to be no doubt about the fact, that these streams of intensely heated hydrogen can be ejected from the body of the sun with a velocity which, if it endured, would bring that breath of fire to our earth in a few hours, what would be the effect of an eruption on a larger scale? What would happen to men and animals if an explosion as general as that in T. Cononæ Borealis took place in our sun? In May, 1866, that star, which is usnally invisible to the naked eye, suddenly flamed up till it was as bright as a star of the second magnitude. When examined by Miller and Hnggins it was found to be enveloped by a prodigious atmosphere. In a few days it dwindled away and sank to its former insignificance.

But what mnst have been the fate of animated beings on the surrounding planets, if any such there were? They were undoubtedly consumed at once and utterly dissipated. Who shall say that our sun, which is a star, will not do the same to-morrow, or the next day, and thus the dread prediction of the Scriptures be realized at any moment? Most assuredly we have no guarantee to the contrary, and can only comfort ourselves with the reflection that while hydrogen is certainly there, and also an awful store of force to heat and project, if yet such convulsions are rare in the order of nature, and, therefore, the world may outlast our time. Nevertheless both astronomy and geology informs us that there have been periods of great variation iu the heat-giving power of our sun, and we may well be disqnieted at the possible approach of a time when "the heavens shall pass away with a great noise, the elements shall melt with fervent heat, and the the earth also, and the works that are therein shall be burned up."

O. W. Holmes on "Darwinism."—O. W. Holmes asks and thus answers the question: What is the secret of the profonnd interest which "Darwinism" has excited in the minds and hearts of more persons than dare to confess their doubts and hopes? It is because it restores Nature to its place as a true divine manifestation. It is that it removes the traditional cnrse from that helpless infaut lying in its mother's arms. It is that it lifts from the shonlders of man the responsibility for the fact of death. It is that, if it is true, woman can no longer be taunted with having brought down on herself the pangs which make her sex a martyrdom. If development upward is the general law of the race, if we have grown by natural evolution out of the cave-man, and even less human forms of life we have everything to hope for the future. That the question can be discussed without offense, shows that we are entering on a new era, a revival greater than that of letters, tho revival of humanity.

A New Galvanic Battery.—Gaiffe's new galvanic battery consists of a vessel in which are contained a plate of lead and a plate of zinc. The lead reaches to the bottom, while the ziuc is but half as long. The bottom of the vessel is covered with a layer of red oxide of lead, and the exciting fluid is water containing 10 per cent of salammoniac. The electro-motive power of this battery is estimated at one third that of a Bunsen cell. Its interual resistance is very slight and it is said to be very constant. It has the merit of cheapness.

The New Mode of Pile Driving. —James Cass, who is building a wharf at Cayticos, on Monterey Bay, being unable to procure a pile-driver, resorted to the novel method of screwiug the piles into the ground. He cut a thread, screw-fashion, at the end of each pile, and then after sinking the stick or pile a short distance into the looso soil or sand, worked it windlass-fashion until it had reached a sufficient depth to be firm and secure.

Blood Globules.—The number of blood globules is greater in mammifers than in birds, in the latter than in fishes. The number is almost always iu an inverse ratio to the volume of the globules; the relation between number and volume is not proportional. Birds gain more by the augmentation of the volume of their blood globules than they lose by the diminution in their number.

Immutability of Species.—Cats aud dogs embalmed in Egypt four thousand years ago are precisely like those of to-day, said the late Sir David Brewster. What have the revolutionists to say to that fact? Four thousand years are nothing, so gradually are organic changes brought about—would probably be the Darwinian auswer.

A Peculiar Locomotive.—A new locomotive named the Anthracite, which has been placed on the Albany and Susquehanna Railroad, has six driving wheels and carries its water above the boiler. A tender is thus dispensed with. The firing apparatus is stated to be so arranged that the firos last all day without replenishing, and the furnaces only require damping once a week.

Farmers in Council.

San Jose Farmers' Club.

The Club met Saturday, Feb. 22d, President Casey presiding.

Mr. Holloway, from Committee on Resolutions, reported resolutions of respect on the death of Samuel T McKeiu, together with a biographical sketch of the deceased.

The report was adopted and the resolutions contained therein unanimously passed.

In the matter of selecting a subject for discussion next Saturday, it was ordered that the road-tax question be set down for that time.

A member wanted to know how much flax seed it required to sow an acre, and how much it cost. He wanted to make a trial.

He was informed that it took from a half bushel to a bushel of seed to the acre, and that the factory at San Francisco would furnish seed at three cents per pound, if the purchaser would return it to them at the same price. If sowed for seed it should be sowed thin. If for lint it should be sown thicker.

Mr. Cadwell asked if there was any jute seed to be had in the State.

Mr. Herring said not.

Mr. Bergland wanted to know if broom corn could he raised in this valley.

Mr. Erkson said he had seen some experiments made and the corn did well.

Mr. Cottle said the corn did not grow quite as long as in the Sacramento valley.

Mr. Thomas said that a furnitnre factory in Sacramento offered thirty dollars per tou for flax fiber, after it had goue through the threshing machiue once, and sixty dollars per ton if put twice through the machine.

A member said he had seeu flax in the monntains and he thought it was indigenous to the soil.

Mr. Cottle said he had seen several experiments with flax in the country and he cousidered it worthless.

Mr. Cadwell said he had seen several crops of flax that were better than the wheat crop.

Agricultural Congress.

Mr. Cadwell, from the Committee on National Organization, presented a report that it wonld be beneficial for the State Club to join the Natioual Agricultural Congress, but that local clubs are not sufficiently identified as yet to nnite with a National Association.

In commentiug on the report Mr. Cadwell said our local societies could not well unite with those east of the mouutains as onr carrying trade is as yet too imperfect to make such union profitable to either, but he thought the State Society could form such a union in order to keep the State represented.

Mr. Holloway said under the present state of affairs the reforms of the farmers come so slow, owing to opposition of corporations, that hundreds faint and fall by the way. He saw uo propriety in having secresy in regard to those operations of farmers' Clubs which merely relate to the cultivation of plants, but when it came to protective measures, the Clnb could never be successful as long as it allows the monopolies to know what they intend to do.

The club has always made a failure when it attempted to secure to the producer a fair price for productions. He said the Europeau wheat market was better when wheat here was down to ruinous prices. Why were not our farmers paid as much then as now? We have the power to enforce justice, for out of the 40,000,000 people in the Union, 30,000,000 are directly interested in agriculture.

We have to fight against organized bodies, which do not let their schemes be known until they are accomplished; and we must organize and work secretly. He did not think the club should join a national society. We have territory enough now, and he would suggest county organization on the plan of the "Grangers."

Secret Organizations.

Mr. Erkson said he was not fully posted in the organization of the Grangers, and would like to understand their mode of operation.

Mr. Holloway said their meeting and proceedings were secret, and their objects were protection.

Mr. Cottle said he saw that the Grangers controlled capital but he did not know how they got it.

Mr Herring said they pledged everything they had for the protection of each other, and that was their capital, and it would be capital enough for the farmers of this county.

Mr. Cottle said he had not a particle of confidence in any such arrangement. Here in the Clnb they had tried for a long time to get voluntary subscriptions to pay for the shelves in the Farmers' Market, and that few had responded. He had no faith in any organization except incorporation. Volnntary organizations could not be made of any force. Without capital we can make no fight against monopolies. In order to command capital we mnst incorporate and issue stock to be of any avail.

Mr. Thomas said farmers should look to something besides interfering with the retail business. Pork is shipped here from Chicago and sold for less than our native pork. This shows a lack in our producing.

Mr. Erkson said he should think it would be disastrous to make a secret organization. If the farmers should form a combination and buy all their goods of one man what would become of our general business? He thought the greatest evil was our lack of diversified farming. Farmers should at least raise what they themselves eat and drink. We can be as well posted as our opponents if we exercise general prudence. If we choose we can ascertain the price and import our own sacks a year in advance. He cites the fact that our home manufacture of beet sugar had broken the "Sugar Ring," and said that each home enterprise would do the same by some other monopoly.

Mr. Bergland said it was necessary if the Club would be successful in its protective operations not to tell its plans to its enemies.

Exchange of Productions.

Mr. Holloway said that pork was the great specialty of the Mississippi Valley. The people there can raise pork for less than half what we can, and if we could get reasonable shipping rates over the railroad which we, the people, built, we can buy their pork and sell them our wheat at a good profit for both. Mr. Holloway said that if combination of farmers should compel half the business houses in San José to shut up, it would be all the better. The Grangers were only praying for the fair thing, and they were determined to have it. If the Club is going to do anything it must organize, incorporate if it would, but he wanted it to conduct its business as others conduct their business.

Mr. Haskell said he had come to the meeting to learn something about the Granges, but he had not succeeded yet. He favored a permanent secret organization in which money could be invested and which could he made permanent. It should be an organization in which the hands of the weak could he strengthened, and which would not allow the needy farmer to be pushed to the wall and forced to sacrifice his crop.

Mr. Erkson suggested that in order to obviate the necessity of a secret organization, the Farmer's Clubs should nnite and form a statistical bureau, through which they could ascertain the exact status of crops and shipping throughout the world, and act accordingly.

Adjourned.—*Mercury.*

Farmers' Mass Meeting.

Pursuant to published notice, a mass meeting of the farmers of San Joaquin county and valley convened at Pioneer Hall, Stockton, Saturday, March 1st, at 10 o'clock A. M. The meetiug was called to order by Mr. Campbell, who was nominated as Chairman, but declined to serve. On motion of Hon. Samuel Meyers, A. C. Paulsell was elected permanent Chairman. Upon the latter gentleman taking his seat, the meeting adjourned to the City Hall, or District Court room, which had been kindly placed at the disposal of the farmers by Judge Booker for the occasion.

The meeting was largely attended and contained many of our most substantial agriculturists. In addition to the numbers from San Joaquin county, there were present delegations of prominent men from Stanislaus and Merced. Upon reassembling at the City Hall, Messrs. Wm. H. Fairchild and S. Dunham were elected Vice Presidents, and Messrs. Phelps and Cowell chosen Secretaries. The president stated the object of the meeting was the formation of a Farmers' Co-operative Union, or Joint Stock Association. He said it was intended to incorporate with a capital stock of $300,000; that the money should be placed in the hands of a board of seven directors.

Farmers should combine, he said, against monopolies and protect their own interests; the association proposed to devise some plan of getting to domestic and foreign markets without having their products go through the hands of so many "middlemen;" it was also proposed to import grain sacks direct instead of allowing California Merchants to swallow up the farmers' earnings by enormous profits. Messrs. Campbell, Warder of Stanislaus, Judge Amyx, Graves, Meyers, Hitchcock, and others, made short addresses earnestly advocating the formation of the Association

Quite a lively debate occurred on a motion to have the by-laws read, and the motion finally prevailed. P. S. Wilkes, Esq., was then introduced, and read the articles of incorporation and by-laws. They are drawn in the usual form, and in compliance with the requirements of the code. They provide that the name of the corporation shall be "The Farmers' Co-operative Union of San Joaquin Valley." The capital stock is fixed at $300,000, divided into three thousand shares of $100 each.

On Motion of Mr. Campbell, it was voted that a committee of ten be appointed to solicit subscriptions to the capital stock of the association, and that the farmers present he invited to step forward and subscribe at once. The Chairman, appointed as such committee Messrs. D. L. Campbell, James Smyth, James Castle, L. J. Morrow, Joseph Harrison, St. John Rogers and T. P. Heath of San Joaquin; and W. J. Warder, Frank Ross and Captain Wright of Stanislaus.

On motion, five more names were added to the committee, viz.: W. P. Fowler and J. R. Elliott of Merced, and Joseph F. Goodale, C. Cressy and C. L. Robinson of Stanislaus. On motion of Mr. Warder it was voted that the Committee on By-Laws be continued in office, and be empowered to call a meeting of stockholders when a sufficient amount shall be subscribed to incorporate; also, that the Subscription Committee be instructed to report to the Chairman of the Committee on By-Laws, March 15th. It was ordered that the stockholders meet at the City Hall, April 15th, at 1 o'clock, P. M.. On motion, the meeting then adjourned.

The sum of nineteen thousand dollars was subscribed on the spot, and some eleven thousand dollars more was subscribed subsequently, making a total subscription of thirty thousand dollars last Saturday afternoon. The farmers appear to be jubilant over the prospect, and express a determination to make the "Union" a success. It was the largset farmers' meeting ever held in this city or valley, the City Hall being most of the time densely packed.—*Stockton Independent.*

Butte County Farmers' Club.

This Club held their regular meeting Saturday, Februrary 22d, Gen. Bidwell presiding.

Harmon Bay stated that he had a communication from Senator Casserly, in which he calls particular attention to the cultivation of jute, asking farmers throughout the State to cultivate it. By raising jute we could have sacks at our own price.

Special Order.

The special order—What are the particular benefits and practical uses of Farmers' Clubs and other similar institutions? being the next order of business.

Elias Findley opened the discussion and argued in favor of the forming of Farmers' Clubs. They should combine to resist the encroachments of speculators and middlemen, and co-öperate in the matter of selling and buying, as well as have a voice in regulating the cost of transportation. He said that a farmer worth $12,000 can hardly make a living, while the speculators make in one short season more than the farmer is worth.

In furtherance of his argument in favor of combination he cited the work done by the farmers of Iows, where they had formed themselves into "granges" or clubs and succeeded in getting their supplies at almost first cost. The farmers have not been accustomed to lead in these things. Have slept when others have been plotting their ruin. He concluded by urging that if the farmer is to be successful he must combine with his neighbor in the Farmers' Club or simi ar institutions—give them his presence, experience and hearty co-öperation.

Gen. Bidwell remarked that the organization of these Clubs was of prime necessity; this was self-evident that without organization we would be powerless. Farmers last year had paid many millions of dollars because transportation had been obstructed and controlled by a few, and asked how long can we stand it? If we submit to this state of things, how long would farming remain what it is? How long before it would degenerate into serfdom. By meeting together and giving our experiences, a deeper interest would grow up in the cultivation of the soil. He advised farmers to prepare to store their grain.

Ed. Hallet suggested that from remarks dropped by some individuals at the last meeting he thought there was a misapprehension with regard to the benefits to be derived from Farmers' Clubs. We could not expect to reap pecuniary benefit immediately, and should guard against such expectation. At present we will derive information that would lead to useful results hereafter, beyond, perhaps, our most sanguine expectations.

W M. Thorp said we should not expect to reap much of the benefits in the next twelve months. The speculators have been working with the brain while we have been asleep. We must entrench ourselves by combining and demand from merchants and dealers goods at cheaper rates. At present the merchant, to cover all losses, puts on a large profit, which is onerous to the cash customer. He said the fight they had to make was a hard one, but by combination they could be successful.

A. F. Blood thought that the fact that reliable houses in the city could not be trusted in the matter of buying sacks was a strong argument in favor of farmers organizing to purchase for themselves.

J. F. Martin thought the information they could gather from each other of great practical benefits.

W. N. DeHaven favored the organization of Clubs all over the country, and suggested the appointment of a committee to visit the farmers and stir them up in regard to these matters.

On motion the discussion closed.

After some discussion the following resolution was introduced and adopted:

Resolved, That at each meeting it shall be the duty of the Chair to appoint one person to prepare an essay on a subject of his own choice, having a bearing on agriculture, and afterward he the property of the Club for discussion and publication.

An informal discussion took place as to the formation of district county clubs and increasing the membership.

Gen. Bidwell was in favor of having men seek these institutions rather than be forced or dragged into them. Would prefer to have them free to come and go as suited them. What they proposed to do had never been attempted before in the world, and they should consider well what is just the best thing to be done now.

W. N. DeHaven, at some length, favored the organization of local district clubs as auxiliaries to the county club.

On motion, E. Hallet, W. N. DeHaven and A. F. Blood were appointed a committee to report at the next meeting the best method of extending this club over every district in the county.

Subject of plowing by steam power was selected for discussion at the next meeting—Gen. Bidwell to lead in the discussion.

Adjourned to meet on Saturday, March 1st, at one o'clock P. M.—*Enterprise.*

Calistoga Farmers' Club.

Pursuant to a call previously issued, the principal farmers about Calistoga, on Saturday last, met in convention at Justice Palmer's office. The meeting was called to order by G. H. Thomas, who stated that the objects of the meeting to be the formation of a farmers' clnb, to co-operate with the several other similar organizations in working for the interests of the producing classes. He dwelt upon the many disadvantages to which the farmers are subjected, the extortions and oppressions of the middle-men, the meaus by which they can be freed from being thus victimized; and the urgent necessity of prompt action in forming these farmers' clubs, and acting out the objects and inteutions for which they were formed. His remarks were well received by all present.

J. N. Bennett was elected President of the meeting, and made a few brief but appropriate remarks. He spoke in an encouraging tone to the farmers, and seemed to look upon the proposed organization as one of great importance. M. Baizley was elected Vice-President; Geo. H. Thomas, Recording Secretary; G. V. Boggs, Corresponding Secretary; and Martin Martz, Treasurer. The president appointed Messrs. Boggs, Thomas and Baizley a Committee on Constitution and By-Laws, with instructions to report at next meeting. This committee were further empowered to open correspondence with other clubs, and gather in all the information in regard to organization, and other matters of interest that might be beneficial to this club. All present expressed themselves well pleased with the prospects of the clnb, and twenty-two names were enrolled as members upon the Secretary's book. Many, who were unable to attend, sent word in that their sympathies were with the club, and that they would attend hereafter.

All farmers' clubs are requested to forward a copy of their Constitution and By-Laws to G. V. Boggs, Corresponding Secretary.

Fruit Growers' Association.

Vacaville and Pleasant Valley Fruit Growers' Association held their regular meeting at Vacaville on Saturday, Feb. 22d. President Bingham not being present the meeting was called to order by Vice-President Barker. After the reading of the minutes, the Association proceeded to the consideration of the revised Constitution and By-Laws, which was taken up section by section and after some slight amendments, was adopted as a whole.

A communication was then presented by T. Hart Hyatt, from the State Farmers' Union at Sacramento, together with a Memorial to Congress praying Congress to pass some act defining the position which the Credit Mobilier, Union Pacific, Central Pacific and the Western Pacific Railroad Companies occupy towards the general government, and regulating the freights and fares on said roads, and in a word to protect the people of the United States by the enactment of just and wholesome laws against the impositions and oppressions of railroad monopolies, which memorial was unanimously signed. After which the Association adjourned to meet at the Pleasant Valley schoolhouse, on Monday, the 24th of February, at one o'clock, for the consideration of business of great importance to the Association, and to the people generally.

J. Hopkins, Cor. Secretary.

Merced Farmers' Club.

Editors Press:—The farmers of this vicinity met at Merced on the 22d inst., for the purpose of organizing a "Farmers' Club;" quite a number of the farmers in the vicinity were present, and a club was permanently organized by the election of H. B. Jolley, President; E. Beaumorit, and W. W. Gray, Vice-Presideuts; W. P. Fowler, Treasurer, and E. R. Elliott Secretary. The form of Constitution furnished by the Farmers' Union was adopted. Name of Clnb to be Merced Farmers' Clnb. A motion was made and carried that when the clnb adjonrn they adjonrn to meet on Tuesday the 4th of March.

The subject for discussion at the next meeting was to be the Sack Question.

On motion the officers were elected to represent the Club at the Farmers' Mass Meeting to be held in Stockton on the 1st of March. All present took a lively interest in the proceedings and seemed determined to work for the individual and collective interest of the farmer and the agricultural interest of the State generally.

E. R Elliott, Secretary.

Merced, Feb. 25th, 1873.

Farmers' Club. — The Fairview Farmers' Club met on Thursday evening, Feb. 13th. The Vice-President in the chair. The minutes of previous meeting were read and approved. The Committee of Investigation asked for and was

allowed further time to report. Other committees were appointed to obtain information relative to the best method of providing storage and transportation for produce.

The question (*Resolved*, That the co-operation of farmers is beneficial to their welfare) was discussed. An essay, by J. D. Taylor was read on the subject, and it was ordered by the club that the Secretary serve a copy of the same to the RURAL PRESS, and one to the *Southern Californian*, with the proceedings of this evening, with a reqnest to publish. On motion, the same question was continued for discussion at the next regular meeting, being the fourth Thursday evening of the present month, at the Fairview School House, at 7 o'clock, P. M.

Adjonrned. D. R. COLES. Sec'y.

AGRICULTURAL NOTES.

ALAMEDA.

News, March 1: CROPS.—Encouraging reports come in from all parts of the country that crops promise better than any previous year. The season of planting has certainly been one of the most favorable ever known, both for plowing and seeding, and an immense amount of ground will be summer fallowed.

Transcript, March 1: WINTER FLOWERS.—Flowers in February in full bloom in the open air, wonld be a rare sight for our Atlantic friends to feast their eyes upon, knee-deep as they are in snow. In the garden of John Ross, on Third street, near Washington, may be seen splendid and fragrant specimens of the moss and other roses, marigold, narcissus, daffodils and gilly stocks. In his hot-house Mr. Ross has no fewer than fifty species of the cactus, some of which are in full bloom, and most of them of curious form. A serpentine fleshy stem, armed with spines, and as thick as a fat man's thumb, winds along the roof of the conservatory, while around it are cacti, unique and in all stages of culture.

BUTTE.

Enterprise, Feb. 28: CROPS.—On Sunday last, in company with Mr. Crew, of the Bank of Chico, we rode through the farming section north of us. We do not remember ever to have seen at this season of the year so promising a prospect for large and abundant crops. From Chico to Fairview, and thence by the way of the Elliots, Turner & Kern, Wm. and George Van Wort's, Sam Bragg, Roberts, Shaw, Moore and Bay, the whole face of the country was a vast field of grain. It is a pleasure to observe the rapid strides being made everywhere over the country in the improvements of the farms—nice houses, fine large barns, good fences and convenient fields are all distinguishing features, and do most certainly demonstrate the abundant resources of the country.

STARVING OF SHEEP.—George Davis, of Nacimiento, has lost 1,500 sheep by starvation. He was laid up with a broken leg, and one of his herders fell sick. The herder hired a man to take his place and left his sheep-camp. Nine days afterwards a person passing the camp noticed the sheep corraled, and found that out of a flock of 1,800 only 300 were alive. The man hired to herd them had corraled them and left for parts unknown, leaving the sheep without food or water.

CONTRA COSTA.

Gazette, March 1: COOL AND SHOWERY.—The weather is retarding the work of getting in the grain crops, the showers, though not heavy, coming frequently enough to keep the surface of the grouud in unfit condition for working. Some plowing is yet to be done in this section, and twenty-five per cent., and perhaps more, of the ground remains to be sown, with fair probability of its being in seed as early or earlier than it was last year. Fortunately the weather has been cool enough to retard somewhat the blooming of the fruit trees that have not already burst their buds. Most of the almond, early peach and apricot, and not a few cherry trees have been some time in bloom, and the frosts to which they have been exposed, forbid the hope of their maturing fruit.

CALAVERAS.

Chronicle, March 1: STORMY.—The two or three pleasant days we enjoyed the latter part of last week were supplemented by the most terrific storm of the season. Sunday night it seemed as if all the elements were let loose in their fury and were engaged in a violent struggle for the mastery. The night was dark as Erebus—so pitchy black, in fact, that it seemed as thongh the darkness could be felt. The rain poured down in incessant torrents that were drifted in blinding sheets by the wind which came in fitful puffs, shrieking and moaning like fiends, incarnate, and shaking buildings to their foundations. Great masses of Sombre looking clouds—broken and driven upon each other in wild confusion—went hurrying onward before the fierce breath of the furious blast like the retreating squadrons of a defeated army escaping the pursuit of a victorious foe. Towards morning the wiud lulled and the rain gave place to snow. The weather has been cold, raw and disagreable since, scarcely a day passing during which snow has not fallen. February has been the most boisterous month we have ever experienced in the country. Terrible, with wood at eight dollars a cord and a scarce article at that. We hope for more decent treatment from March.

FRESNO.

Stockton *Independent*, Feb. 27: A correspondent writing from Squaw Valley, Fresno county, under date of the 24th instant, says that everybody in that part of the valley is at work, and more grain is being sown the present season than in any previous year. Early sown grain is remarkably promising and feed for stock is reported plentiful. Our correspondent states that several new settlers have taken up their abodes in that section and are making for themselves comfortable homes. The people of Squaw Valley have recently subscribed liberally and built a new public schoolhouse, in which school is kept through the week, and the people assemble there on Sundays for divine worship.

On the 16th and 17th instants there was quite a snowstorm, more severe than ever before known in that section of Fresno county, but little damage resulted.

We are assured by the writer that the farmers in that locality are looking eagerly and hopefully forward to the inauguratiou of the San Joaquin and Tulare Narrow Gauge Railroad project, and heartily wish that it may prove a grand success.

HUMBOLDT.

S. F. Call, Feb. 28: NOT SMALL POTATOES.—Yesterday some potatoes in one of our markets bore the following label: "These potatoes were grown on Ocean Farm, on Salt River, Humboldt County. The yield of one acre was 324 sacks, weighing 2½ tons, of merchantable potatoes, besides the small or 'feed' potatoes This sack contains 46 potatoes, weighing 105 lbs." The ordinary yield of an acre elsewhere in the State is 100 sacks.

MERCED.

ALFALFA.—Quite a number of our farmers and stock-raisers are beginning to turn their attention to the raising of alfalfa. Mr. J. K. Mears, of this county, has sowed alfalfa on some sixty acres. Miller & Lux, who rank among the largest cattle-raisers in the State, have also seeded a large amount of land with alfalfa. Stock men who have tried this grass say fifty acres of alfalfa will feed as much stock as three hundred acres of ordinary pasture.

MONTEREY.

Democrat, March 1: THE WEATHER.—The weather during the week has been inclement, cold, rainy and blustering. Very unfavorable for farming operatious; we fear that sheep owners must have suffered the loss of lambs to a considerable degree.

ITEMS FROM PEACH TREE.—Our old correspondent furnishes us with a report from his section, which we regret we have not space to publish at leugth. He represents that the weather in his region has been similar to that we have experienced for some time past, only more so. It has rained hard at intervals, the mountains have been covered with snow, which has falleu on the low grouuds likewise, and fierce and chilly blasts have swept over the country. As a consequence grass is backward and stock have suffered. He says, nevertheless, that preparations are being made to put in grain more ground than ever before. The roads, too, are not in as bad condition as might have been expected.

NAPA.

Register, Feb. 27: HARVEST OUTLOOK.—With carefully gathered notes from different portions of our county before us, we thiuk it safe to assert that the grain yield this year will be nearly double that of last. Never since the settlement of this valley has a season been more favorable to seediug.

Never has so much water fallen without producing a perceptible effect on the streams. It has come so evenly, and been so distributed that we can scarcely realize how much has fallen. The only drawback has been the cold. In a few localities, on very wet land, it is feared that the seed has rotted in the ground, but the area is so small as to make no appreciable difference in the aggregate.

Most of the grain having been sowed early we anticipate harvest a little in advance of last season. Notwithstanding the heavy frosts, we hear of no damage to fruit, as we feared; for a very warm spell of weather about a month ago was calculated to start the sap earlier than usual; and in several places we saw almond trees in bloom. Altogether, the prospect is such as to make our farmers feel very comfortable. The great question is: How much is for the sharks, and how much for the farmer?

Reporter, March 1: REDWOOD WINE CASKS.—We have advocated the use of redwood in the manufacture of wine cask, tanks, etc., in place of oak. We have done so, because, on the authority of some of our oldest wine makers, we have deemed that the redwood had proved in every way as satisfactory as the oak, and that being so very much cheaper, would be a great saving to wine makers. But it seems that all do not agree upon the use of this wood.

Mr. Schweitzer, the Superintendent of Mr. Groezinger's extensive winery at Yountville, informs us that his experience of five years with redwood casks proves them to be a total failure. The only use, in his estimation, to which redwood can safely be put is for tanks for fermenting the pomace during the vintage. He affirms that with a cask of the usual size made of this wood, there will be, by pure absorption, a loss of a gallon per week, or a total absorption of fifty two gallons per year. And further, that by reason of so great an absorption, the casks at the end of the second year become very wet on the outside, and are quite difficult to be handled; also, that they leak badly.

He furthermore says that wine will sour in redwood casks much sooner than in oaken ones; and that if the casks are not washed within four days after the wine has been drawn, they will sour. He thinks that shipping in redwood is an impossibility. At the wine Growers' meeting, last summer, the subject of redwood for all purposes about the cellar was thoroughly discussed, and it was, after mature deliberation and investigation, thought that redwood, for all purposes except shipping, was equal to oak. We shall be pleased to hear from other wine makers on this important question.

PLACER.

Herald, March 1: MINERS, CROPS, WEATHER. We thought last week we had bidden the clerk of wiuter weather good-bye for the season, but it seems he is still ou duty. On Monday evening he seut us a shower of frozeu snow almost as big as buckshot, accompanied by severe thunder and lightning—a strange and unusual mixture for this place. This was followed by a heavy snow, which reached far into the night, when it wound up with a freezing sleet, leaving three and a-half inches of snow on the ground Tuesday morning.

All this is good for the miners and farmers of this county. The miners want water for next summer's mining, and the almost inexhaustible bank of snow left in the mountains will yield this supply without a murmur. The ground is so completely filled with water that it would take an extraordinary dry spring to prevent the farmers from having good crops. With these two elements of our material interests supplied (the farmers and miners), everything else must and does prosper.

Pasturage is sufficiently advanced to keep stock in good living order, and the cold weather serves to keep the fruit back so that a heavy fruit and wine yield may be confidently expected. Grain is doing well, taking deep root preparatory for a healthy and rapid growth in the warm days of Spring. The excessive rains have prevented a good deal of barley being sown in this county that otherwise would have been raised.

On the whole, in our experience of twenty-three years in California we have never seen a season that promised a more bounteous harvest in any branch of industry in this country than this. May it close as prosperous as it begins.

SAN BERNARDINO.

THE prospect of a good season has made stock and sheep men more confident. Buyers are numerous but sellers, especially those of sheep, are difficult to find.

THE yield of alfalfa seed on twenty acres last year cultivated by a farmer near this place was 700 pounds. The seed was harvested from the third cutting, leaving the hay of the two previous to bear expenses. Greater attention will be given to alfalfa this season; seed is much sought after but is still very scarce in our local market.

SAN JOAQUIN.

Independent, Feb. 28: BLACK FARARO GRAPE.—Recently Mr. W. B. West handed us a sample of what is known as the Black Fararo grape, remarkable for its fine quality as a Winter table fruit. It is as fresh and good in the middle of January as most grapes are a week after they are gathered from the vineyards. Mr. West has just received tidings from Boston that a lot of the Black Fararo grape, shipped by rail over two months ago, had arrived and was found in almost perfect condition. It appears that the fruit was sent through mistake, to the wrong depot in Boston, and there lay over thirty days, making sixty-six days in all from the time the fruit left this city until it reached the hands of the consignee; yet it reached its destination in No. 1 condition.

IT is generally ackowledged by the oldest residents of this valley, that this has thus far been the most favorable season ever known. The rainfall has been no greater than last year, but it has been more beneficial. The area of land under cultivation is larger than last year, and the prospect for an immense yield was never better. Should the expectations of our people be realized, our farmers will fully recover from their losses caused by the late two years of drouth, and will be in circumstances to engage in those enterprises which have been inaugurated to improve their means of communication and advance their general interests. Another year of general prosperity will do much toward the permanent development of the resources of this portion of the State, and it is therefore very encouraging to hear such favorable reports from all parts of the valley.

SONOMA.

Democrat, March 1: FORESTVILLE.—A correspondent writes us from this growing town under date of February 25th. He grows eloquent over the beautiful view of the snow covered hills which lie to the north and east of this vine sheltered village, in contrast with its spring-like surroundings of blooming fruit and budding forest trees, and the rank grain fields of Green Valley, already tall enough to rise and fall in graceful waves, when rippled by the evening breeze.

A POWERFUL ORGANIZATION.—Not long since an address was delivered before the Sonoma County Farmers' Club by a gentleman who had just returned from the East. He gave an account of an organization of farmers in Iowa, called the Grangers or Patrons of Husbandry. The State Grange has just held its annual meeting, which lasted four days. It was attended by 800 delegates, representing a membership of 35,000. It was the largest representative body ever assembled in the State—all its deliberations were characterized by moderation and decision. A memorial was sent to Congress, asking for a law to regulate fares and freights on all the railroads within the United States. Another was sent to the Legislature, petitioning for relief from burdensome tariffs and soulless discriminations on State railroads.

The incorporation of the Grangers under the law of the State was ordered. It will be seen that the plan proposed by the Sonoma County Club for organization is indentical with this, save only the objectionable feature of secrecy.

From the report of the Executive Committee it appears that there are 778 Granges in the State, with a membership of 34,858. At the last annual meeting there were 78 Granges, with a membership of 2,400. The gross receipts of the year, $10,734.95; expenditures, $2,300. A synopsis of their doings and purposes is given. Nearly a third of the grain warehouses and elevators in the State are owned or controlled by these Granges. Not less than 5,000,000 bushels of wheat was shipped out of the State by them. All the returns show an increased income to the farmer of from 10 to 40 per cent. The Grange purchases of different kinds of farming implements show a saving of at least $365,000.

During the present year not less than $400,000 will be invested by the farmers in the establishment of manufactures and elevators, thus creating a home market for skilled labor.

VENTURA.

Signal, Feb. 22: The prospects of a season of superabundant crops were never better in this prolific country than at this time. The rains have been bountiful and timely, and the weather most propituous. The whole country is one vast field of clover and alfileria, and stock of every kind is reveling in fatness and its richness. The atmosphere is balmy and June-like, and, as yet we have not had a frost to kill the tenderest of vegetation. Could our neighbors over the mountains be suddenly transfered to Ventura County, from the intense cold and storms from which they are suffering this winter, they would hardly care to return again, even on a visit.

YUBA.

Appeal, March 1: LEMON TREES.—There was quite a large shipment yesterday, by express, of lemon trees, from Oroville to Chico. This is the secoud lot of lemon trees noticed as passing through town.

IN BLOOM.—Peach trees have been in bloom in this vicinity for more than ten days. But these blossoms are confined to a few scattering trees in the various orchards.

A FAILURE.—The apricot crop, of the Mohart variety, in all the orchards of this vicinity, is a failure. There must be a thousand or fifteen hundred trees in the four large orchards in this vicinity, and it is said that the whole combined will not produce five bushels of apricots. Of the earliest variety, and a smaller apricot, there will be a light crop. The Moharts were not killed by frosts, but the buds blasted as if for want of sufficient vitality in the trees.

OREGON.

Oregonian, Feb. 22: According to the report of the Department of Agriculture for January last, during 1872 the increase of horses in our State was three per cent.; of cows, five per cent.; oxen and other horned cattle, seven per cent.; hogs, three per cent.

A gentlemau who has been exploring the southeastern part of our State says there are several valleys in that section where thousands of families can find pleasant homes, where sickness is hardly known, and crops are never known to fail.

Eastern Oregon lives in daily fear of the horse disease. It is approaching them gradually.

YAKIMA VALLEY.—The valley proper is composed of Yakima, Celey, Kittitas and Wenass valleys. The Yakima river is navigable for more than 100 miles from the mouth without serious impediment to the channel, except one rapid, which, with but comparatively little expense could be removed so as to allow boats to ascend and descend without difficulty. Nearly the whole basin through which the river runs is composed of a black, rich appearing loam. The soil is wonderfully fertile and productive. The first settlements in the valley are those in the Yakima proper. There are about 400 votes in that portion of the county. The little town of Yakima City has three stores two blacksmiths, a wheelwright, two saddlers' shops, three saloons, two hotels, one butcher shop and eight or ten dwelling houses. The most important of all is an extensive flouring mill, which has a capacity for turning out a large quantity of flour per day.

The Kittitas valley is probably the most important valley included in the basin. The average width of this valley is about 25 miles, and nearly 70 miles in length. During the past summer about two hundred families have gone into this valley for permanent settlement. There has been during the past year a Government survey of this valley.

The Wiuass and Naches valleys are both fine grazing and farming districts, but neither are so extensive as the others mentioned. On the headwaters of the Yakima river, there have been employed during the past season some 400 Chinamen in prospecting and mining with varied success. The prospects made are not discouraging and may in time yield satisfactory results. The whole of the Yakima country is certainly one of the finest stock growing districts on the Pacific Coast and the natural range for stock is not surpassed anywhere.

It is sometimes regarded with surprise why so many farmers in neighboring Territories and even this State remain on rented farms and allow such favorable opportunities to pass unimproved. Snow in this valley rarely ever attains a greater depth than 18 inches. It being in proximity to the line of the N. P. R. R. the land in a short time will become very valuable, and should there ever be a railroad from the Sound to Walla Walla, or intersecting the line of the Northern Pacific, it will undoubtedly pass directly through these fertile valleys.

Home and Farm.

Value of Trees on a Farm.

Since writing my last letter I have read so much good advice in the Rural Press about planting trees of different kinds that anything I may write now will seem superfluous, but however, it is a subject not easily exhausted, and if I can succeed in inducing ten boys in this State to make persistent efforts at tree planting, I should consider my writing had not been in vain.

On very many ranches in this State I have observed the buildings, for the sake of convenience, placed where they felt the full force of the sharp winds, and without trees of any kind for a wind break. If you go outside of the door of such dwellings, you will sometimes find it difficult to keep on your feet. You see the cattle and young stock hugging the lee side of some straw stack or shed, or perhaps wandering off into some ravine, especially if there are bushes or trees there which may serve as protection from the chilling blasts. Very few farmers on this coast are prepared to stable all their stock, as there is but little time during the year when shelter is an absolute necessity to young stock; still stock, both old and young, will grow and thrive better with shelter when it is needed. A thick belt of timber on rocky ridges, or steep hill sides, or down in ravines where the land is not needed for farming purposes, affords in many cases, sufficient shelter for young stock. Anyone who has ever seen calves or colts hugging the side of a barn or a fence for slight protection, and noticed what a rough-coated, drawn-up, pinched, forlorn look they presented, will admit that it is a work of mercy to try and better their condition.

Native Trees Suitable for Shelter.

There are plenty of trees indigenous to this State, that would serve as a wind break, and when grown be valuable as timber. The Santa Lusia fir grows to the height of a hundred feet, in shape of a perfect cone with its lower branches resting on the ground.

Then the fragrant cedar, found along the northern coast of thie State, is a large tree and produces white, clear lumber, valuable for furniture and inside work. California laurel is an evergreen also, with wood valuable for furniture. The California chestnut oak, leaves resembling the chestnut, bark rich in tannin, is a low, handsome evergreen tree. Around a dwelling house nothing could look finer than a thick belt of Monterey cypress; it would be ornamental while at the same time serving to break the force of the bleak winds, from the dwelling or young fruit trees.

The madrona and Australian Eucalyptus are useful for forest planting.

Sugar, yellow and nut pines could be planted in many localities to advantage. I lately read a communication from an English gardener saying he had raised conifers from slips.

I have traveled over much of California, seen many fine ranches and keep a sharp eye out for improvements, and I have seen hundreds of ranches that had not a single fruit tree or grape vine growing upon them, while the owners were dependent on peddlers for what fruit and vegetables they got, paying, perhaps, a third more for fruit or grapes than we pay in San Francisco. You ask them why they do not raise their own fruit and grapes, and they tell you, perhaps, "Well, I did put out some, but they did not do well," very likely they will point you out the stumps of some upon which the cattle had evidently browsed.

Now the plain truth would, nine times out of ten, be this:—They dug a little hole about a foot square and ten inches deep, put in the trees, piled the dirt around, let the pigs root, the calves eat off the tops, hoed them perhaps once or twice a year, let the winds blow and twist them, under which circumstances the trees of course give up trying to live, and the farmer concludes his ranch is not adapted to growing fruit. Now what is worth doing at all is worth doing well. Don't begin without you are determined to persevere and make tree planting a success.

I have seen cases where people, who have violated every law of health, by over eating or drinking and dissipation of all kinds, or even by working to excess, had induced disease and death. The minister, who is called to officiate at the funeral, tells the bereaved it is a mysterious dispensation of Providence that has taken their friend away. The simple truth was this, God's laws are self-acting, he transgressed the laws and suffered the penalty, and Providence did not interpose to save him from the penalty.

Providence cares for those only who strive to care for themselves, and Providence will provide sun, air and moisture for our trees only when we plant them properly in the right kind of soil and in the right location; but Providence don't engage to hoe, prune, keep the weeds down and protect them from cattle.

We may often learn a useful lesson from the tiniest of God's creatures. Not long since I read an account of a wonderful ant found in Texas, called the Agricultural Ant, which I purpose telling you about, that you may know what a pattern farmer and example of industry, sagacity and prudence is to be found in that remarkable insect.

"It is a large, brownish ant; it dwells in paved towns; but, like a thrifty, provident farmer, it makes suitable and timely arrangement for the changing seasons. When it has selected a situation for its habitation, if on ordinary dry ground, it bores a hole, around which it raises the surface three, and sometimes six inches, forming a low, circular mound, having a gentle inclination from the center to the outer border, which, on an average, is three, or four feet from the entrance. But if the location chosen is on low, flat, wet sand, liable to inundation, though the ground may be perfectly dry at the time, the ant sets to work, nevertheless, and elevates the mound in the form of a pretty sharp cone to the hight of about twenty inches and makes the entrance near the summit. Around the mound, in either case, the ant clears the ground of all obstructions and levels and smooths the surface to the distance of three or four feet from the gate of the city, giving the space the appearace of a handsome pavement, as it really is. Within this area not a single thing is allowed to grow, except a single species of grain bearing grass. Having planted this crop in a circle around, and two feet from the mound, the insect tends and cultivates it with constant care, cutting away all other grasses and weeds that may spring up, and all around outside the farm circle to the extent of one or two feet more. The cultivated grass grows luxuriantly and produces a heavy crop of small, white flinty seeds, which, under the microscope very closely resembles ordinary rice. When ripe, it is carefully harvested and carried by the workers, chaff and all, into the granary cells, where it is divested of the chaff and packed away. The chaff is then taken away and carried outside the limits of the paved area. During protracted wet weather it sometimes happens that the provision becomes damp, and is liable to sprout and spoil. In this case, on the first fine day, the ants bring out the damp and damaged grain, and expose it to the sun till it is dry, when they carry back and pack away all the sound seed, leaving that which had sprouted to waste." It must be a dull boy who cannot perceive wherein he should imitate this ant. One of Solomon's Proverbs reads: "Go to the ant, thou sluggard, consider her ways and be wise."

I trust none of the boys who read the Rural Press can rightly be called—sluggards, and will not let this favorable season of the year pass without planting trees, "that will be growing while they are sleeping," realizing that no good and useful deed goes unrewarded.

Aunt Anna.

Dr. Chapin on the Printing Press.—I love to hear the rumbling of the steam-power press better than the rattle and roar of artillery. It is silently attacking and vanquishing the Malakoffs of vice and the Redans of evil, and its parallels and approches cannot be resisted. I like the click of the type in the composing-stick of the compositor, better than the click of the musket in the hand of the soldier. It bears a leaden messenger of deadlier power, of sublimer force, and of surer aim, which will hit its mark' though it is a thousand years ahead

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Sympathy.—The secret, I believe, of exciting the sympathies of our fellow-creatures, and awakening an interest for ourselves in the bosoms of others, is this:

To feel deeply: not as some do, to let our minds dance like a light waterfly on the current of all events; but to have hearts which, like a fine instrument, give back full and distinct tones to all that touches them, whether the chords that are struack be gay or gloomy, tuneful or discordant.

Fish Culture.

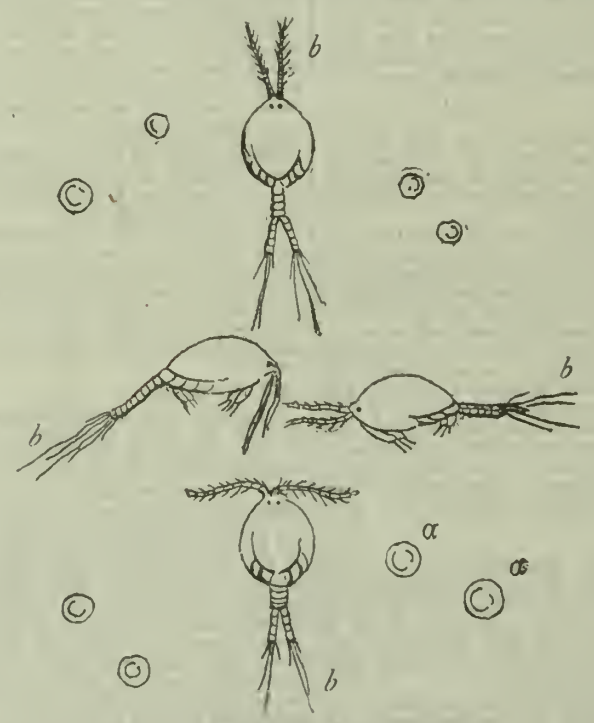
In continuing our remarks on trout culture, which we do at the desire of a few who are already engaged in or who contemplate fish culture in California, we continue the subject of parasites and insects which are known to attack young fish, causing disease and death in great numbers, at times when there seems to be no good reason for the strange fatality that attends them.

When it was discovered that salt was an unfailing remedy for the parasites that attack large trout, the idea would very naturally suggest itself, that possibly the small fry of this kind of fish, dying in great numbers from no apparent cause, might also be affected possibly by minute parasites, and experiments with the microscope revealed the truth of the supposition.

Figures *a*, *a*, in the engraving show the kind of parasites that attack very young trout in almost all the waters of the East in which trout are grown.

Figures *b*, *b*, are water insects that are supposed to be destructive to trout eggs in the natural trout waters. Livingstone Stone, in remarking on these parasites, says:

Similar series of experiments led to the discovery that salt is also a cure for the parasites on young fish. These parasites are smaller than those which infest the large fish. I have



TROUT PARASITES AND INSECTS.

sometimes found the larger parasites in small numbers on the small trout, but have never found the circular parasite on large trout. They have a circular form with a diameter of about 1-50 of an inch. They are extremely thin, and progress by a rotatory movement. They sometimes swarm in immense numbers upon the young fish that are attacked by them. They do not cause a fungoid growth, as the larger ones do in the larger fish, but the young trout affected with them appear outwardly as clean and well as ever. If the parasites are not removed, however, the trout will lose their strength and drift down toward the screen, on which they will probably be finally caught and die. This furnishes one explanation of what so many trout breeders have remarked, that their young fry seemed to die when they appeared perfectly healthy. Salt destroys the parasites, and does not injure the young fry. It is, therefore, a remedy for the parasites. Hundreds of experiments which I tried of putting the affected young trout in salt water, had the same result, which was to kill the parasites and restore the fish.

I will also add in this connection that the salt bath seems to improve the young fish in other ways than by killing the parasites, and one lot of young fry in particular, confined in a small box, which I cured in this way, and to which I gave a pint of salt every day, appeared better than any other young fish that I had. I have accordingly come to the conclusion that salt is beneficial to the young fish, and that large quantities can be used to advantage in the nurseries of the young fry, not only for the purpose of immersion, but to furnish an essential element in which the water has become deficient. All spring water, it is said, contains a modicum of salt. Perhaps this slight trace of salt is essential to the health of the fish. If so, then salt ought to be supplied artificially when trout are kept in a spring stream where the supply of salt is insufficient.

The pine is a native of America.

The mulberry originated in Persia.

Domestic Economy

Yeast.—A Minnesota housekeeper furnishes the N. Y. *Tribune* a receipt, which she says makes the best yeast known to civilized women. She has kept it three months in the hottest weather and much longer in cool weather, and never had any sour. The flour should be thoroughly dried by the fire before being made into sponge, an important item of which many young housekeepers are ignorant. The sponge should be set at noon, mixed at night, and molded next morning. Stirring the sponge after it begins to ferment makes the bread white. Now for the receipe:

One quart of hops put lightly in the cup, one quart of potatoes pared and sliced, one pint of corn browned like coffee; put the hops in a small bag, add three quarts of boiling water, boil two hours. Strain through a colander, add one cup of white sugar, half a cup of salt, and water to make five quarts of the mixture. When lukewarm add one pint of the same kind of yeast to ferment it. If that is not at hand use potato yeast without meal or flour, as that might sour after a while. Half a cup is enough for a baking, large or small. The yeast must be made in tin or porcelain. Let it stand 24 hours in a warm room, then bottle or can tightly and keep in a cool cellar. Half the ingredients will do for a small family.

How to Make Toast.—A dish of good toast is a rarity and is an enjoyment. For breakfast few things surpass it, to those who are accustomed to that dish at that meal. It is light, digestible and reliable, and is not very expensive. A cup of tea or coffee, with a baked Spitzenburg, or a dish of any other sub-acid in addition, will make a satisfactory meal to a reasonable man. In toasting bread the following rule should be observed: Warm your bread well, by changing the sides of the slice when heated through, brown as is desired. There should be rather little than much browning, and the slices should be quite thin, say a quarter or three-eighths of an inch, no more. But do not scorch; avoid that in all cases. The philosophy in browning is to take your time until you are done Where the toast accumulates keep in a hot dish, but use as soon as possible. What is desirable in toast is the rich color and flavor formed by changing the starch into dextrine or gum. Heat evaporates moisture in bread as well as elsewhere. The moisture that escapes from toast leaves the bread light, soft and porous inside.

Tomatoes in Iron Pots.—There are a thousand and one things I would like to know (and probably shall, in time, unless I have to learn how to vote); but this I do know, that tomatoes must not be cooked in an iron pot. Some beneficient housekeeper, following in the footsteps of the illustrious "scrapple" maker, gives a receipe in last week's *Rural* for a cheap soup, in which she directs the ingredients to be put in an iron pot. I sometimes, at good tables, taste tomatoes which have been made bitter by this process. If the intention is to medicate them, the result will satisfy the design.—*Rural New Yorker*.

It might be added that vegetables should never be cooked in iron pots, unless the latter are enameled or otherwise coated internally.

Gloves.—Probably no gloves are more expensive than silk. To speak within bounds, without doubt, a good pair of kids will outlast a dozen pairs of silk gloves. Never buy cheap kids unless you have more money than you know what to do with. Kids can be bought of the different shades and when soiled, dyed black and look as well as new. I give a recipe we have used: Steep three handsful of logwood chips in an earthen vessel until the strength is well extracted; add a little copperas and a little alcohol. Put the gloves on the hands, brush over with the mixture, and rubbing gently let them dry there, which they will soon do. If not black enough, brush over a second time and dry as before.—*N. E. Homestead*.

Jelly Rolls.—One cup of powdered sugar, one-half cup of butter, three eggs well beaten, one-half teaspoon soda, one teaspoon cream tartar. Dissolve the soda and cream tartar in one-half cup sweet milk, one cup flour.

Bake on long tins; spread each cake with jelly and bake when hot. Always use pulverized sugar for jelly rolls. The same recipe answers well for jelly cake. Bake in round tins and spread jelly between.

Cleaning Window Blinds.—Strong soap will destroy green paint more readily than other colors, having the same effect that it has with grease. Many rooms are soiled by the ignorance or carelessness of wash-women, in the application of strong soap water. Much better use whiting on the soiled places and weak solutions of soap in cleansing, by which the lustre will be preserved.

Potato Yeast.—Boil a potato till it breaks to pieces. When the water is nearly cool, pour it off. Add to the potato a desert-spoonful of coarse sugar, and a teaspoonful of common yeast. Beat the compound with a wooden spoon, and the yeast is made. Common yeast is only wanted the first time; what sticks to the wooden spoon will afterwards supply the place.

Good Health.

The Dress of Children.

Should our children be dressed in a manner becoming their tender years and their ceaseless activity, or like the dolls and images seen in the senseless puppet-show? As we look at the children in our cities, we are led to believe the latter is the popular manner.

A child is something given to our keeping, for us to develop in every possible manner to its utmost, not injuring or cramping one of its God-given powers. The first necessities of a child are love, food, and warmth. The two first are more surely supplied than the latter.

How many mothers are there who will dress these tender ones as warmly as they do themselves? A little babe who has never felt a breath of air till perhaps within a few days or weeks past, is considered warmly dressed if fortunate enough to have on a thin flannel shirt with long sleeves, and over this a thin white material for a dress.

The teething babe is often allowed to sit on the floor, which is by several degrees the coldest part of the room, dressed in a manner which would cause us to shiver with cold. Young children require more clothing than adults, yet they seldom get as much. I well remember, and with gratitude, too, the advice of my physician, while tending a sick teething babe. I asked him why my babe was sick so much? "Because you don't dress it warm enough." I showed him the long-sleeved delicately-textured flannel shirt, the warm skirt, the little merino dress lined throughout, and the home-knit stockings, reaching above the knees. No matter, says the kind old man, "your babe is ailing and teething; he can neither creep nor walk, hence has no wamth from excrcise, and, besides, sits on your floor, which is entirely unfit for a strong, well person, because it is so cold." Straightway the flannels were doubled, and under the dress a warm flannel wrapper, and my babe was warm.

Thin white flannel, such as mothers love to use, has not the necessary warmth.

Stockings should be thick, and knit very long, also fastened by elastic to the waists of skirts, so they may not slip down, exposing the bare leg. In winter a single flannel garment about the neck, chest and arms is insufficient.

Mothers of this generation must consider the physical education and training as of first importance, for by our own weakness we know we cannot impart the robust physique we desire our offspring to possess, therefore *our* lack must be as far as possible, be made up by the careful, judicious training of our children in young and tender years.—*Science of Health.*

Death from Cold.—Experiments on animals show that they keep themselves alive as long as they are maintained in a state of half congelation, and die whenever their temperature and circulation are so far restored as to permit the blood-globules disorganized by cold, to be diffused throughout the vessels. Death occurs, therefore, whenever these globules are sufficient to produce a considerable disturbance in the system, that is, whenever the frozen part is at all extensive. An animal entirely frozen, and consequently containing in its congealed blood no globule but those unfit for life, is dead, without possibility of resurrection. Thawing it only restores a soft, flaccid, discolored body, with opaque eyes. If freezing only attacks a limb, it becomes gangrenous, and is destroyed. Panchet deduced from these examinations judicious, practical conclusions. If it is true that, in cases of partial freezing, the death of the individual is due to the disorganized globules re-entering the circulation and corrupting the blood, it is plain that, the more sudden the invasion of these globules is, the more rapidly death will supervene. It follows that, by resisting this invasion, by means of ligatures, or extremely slow thawing, we might succeed in preventing the poisoning. The diseased globules which, pouring in a flood into the heart and lungs, would imperil life by the sudden alteration of the blood, will apparently disturb it merely in an unimportant way, if they are dropped into the blood by slow degrees.

Remedy for Headache.—Put a handful of salt into a quart of water, add one ounce of spirits of hartshorn and half an ounce of camphorated spirits of wine. Put them quickly into a bottle, and cork tightly to prevent the escape of the spirits. Soak a piece of cloth with the mixture, and apply it to the head; wet the cloth afresh as soon as it gets heated.

Croup.

Croup is one of the most dreaded complaints to which children are liable. It is an inflammation of that delicate membrane which, continued from the mouth, lines the whole inner surface of the *larynx* and windpipe, and finally of the *bronchial tubes*, or air-passages.

Both from the importance of its situation and the rapidity with which it runs its course, croup is one of the most dreaded and fatal affections in the range of juvenile diseases.

The symptoms begin with restlessness, which in a few hours is followed by wheezing in the throat and hoarseness, most heard during sleep, while a short, dry cough soon after succeeds, attended with a tightness and constriction in the throat, indicated by the child frequently raising its hand to the part as if to remove some obstruction. The difficulty of breathing becomes rapidly more distressing, and the face assumes an aspect of great anxiety; the veins in the neck become swollen and knotted, or varicose, and the voice, every time the child speaks or coughs, has a sharp metallic ring, which soon settles in a steady sound, like the crow or croupy noise made by fowls when caught and held in the hand—that character, in fact, which has given to the disease the popular name which it bears. The cough, at first dry, is after a time attended by a thick, ropy expectoration, which clinging like glue to the fauces, and extremely difficult to remove, causes the child great suffering to expel, the patient appearing half suffocated in its abortive attempts to void the adhering whitish phlegm. With these symptoms come on thirst, heat, and considerable fever; the pulse is quick and vibrating, while the efforts of the child to obtain air causes it to arch the neck back in a manner most distressing to witness, till the anxiety of countenance and difficulty of inspiration increasing, the little patient expires about the third day, strangulated from the interruption of air to the lungs.

The paroxisms of this disease usually come on in the evening, and become intensified about midnight, the patient seeming free and better during the day.

All efforts should be bent to induce the reabsorption of the false membrane, loosen it from its hold of the windpipe, and cause it to be expelled. Warm bathing, or sprinkling with warm water may be resorted to, and moderate vomiting produced until the services of a physician can be secured, a matter which should never be neglected, unless one has had much experience in such cases.

How we Go to Sleep.—If the phenomena of sleep were not so common, they would be regarded as among the most marvellous of all our experiments In sound sleep, all voluntary motion is suspended. The muscles relax, begining with those which move the body, the large muscles of the legs, then the muscles which move the arms, then the muscles which keep the head erect, then those which support the lower jaw, and, last of all, those which keep the trunk in an upright position. Of the senses, that of sight is the first one to surrender. The muscles which draw up the upper eyelids lose their power, and the eyes close, but the retina loses its sensitiveness to the light, even when the lids remain open. The sense of taste disappears next, then the sense of smell, then that of hearing, and, last of all, the sense of touch, which disappears only in the most profound slumber. When a person is to be roused from slumber, touch is the first sense to respond, then hearing, then smell, then taste as the last, the sluggard of all the senses. Sound sleep, and a plenty of it, is indispensable to health. It is the great restorer of the waste which takes place during our waking and our working hours, and is indispensable to long or happy life.

Deaths From the Bites of Animals, Etc, in 1870.—By the Register General's thirty-fifth report, for 1870, just published, we learn that during that year, in England and Wales, hydrophobia was fatal in thirty-two distinctly ascertained cases, and glanders in four. These two are the only diseases known to be caused to man by his two most intimate domestic animals. Two children, however, died from the bite of dogs—not hydrophobic; one from the bite of a cat, and another from a cat sleeping on its face and so producing suffocation. The bite of a rat and of a ferret were fatal in one instance respectively, and one person, an adult, was stung to death by bees. Singularly enough, the victims in the case of all the bites—dog, cat, rat, and ferret,—were male children. Two hundred and fifty males, and twenty-two females, perished by means of "horses and other animals," exclusive of the large number of accidents connected with railways, tramways, mines, etc., and of the 954 males and 182 females returned as killed from "horse conveyances." The total number of violent deaths in the year was 16,593.—*Land and Water.*

A Singular Disease.—Cases of a singular and fatal disease have occurred at Logan, Cache county, Utah. The patient is attacked by a pain in the left knee; the leg below the knee, down to the toes, becomes much swollen, hardened and red, the pain then abates, the swelling recommences above the knee, and extends up to the body, when inflammation seizes the bowels and the patient soon dies. Three cases of this disease have occurred, and the medical man, who has had forty years' practice, says he has never known anything like it before.

A Substitute for Vaccination.—A theory, which is not altogether a new one, has recently been revived publicly by Dr. D. S. Woodworth, of Fort Wayne, one of the oldest and most eminent physicians of Indiana. In a letter to the *American Practitioner*, he says that for thirty-four years he has held to the plan of pustulation by tartar-emetic as fully as good a preventive of smallpox as perfect vaccination. He adds that the fact is familliar to physicians that there is an almost exact resemblance between tartar-emetic pustules and vaccina, not only at their full development, but during the successive stages. He asks the question, why this artificial pustulation may not be "just as good a preventive as vaccination since the same process has been gone through with, and the same molecular changes?" and suggests that experiments be made in hospitals to prove this theory.

Ingrowing Nails.—A correspondent to the British *Medical Journal*, recommends the following treatment for this annoying and sometimes obstinate trouble: About twenty years ago, I applied a bit of compressed sponge to afford temporary relief, and was delighted to find that it effected a radical cure. I make the sponge as solid as leather, by wetting and then winding string very tightly round it, and drying it thoroughly. Of this I cut a small pyramidal piece, less than a grain of rice. This I insert beneath the nail, and secure it by strips of adhesive plaster, applied longitudinally, to avoid compression. The sponge soon becomes moist and swollen, keeping the nail from the irritated flesh. Any granulations should previously be destroyed with strong nitric acid. I have adopted this plan upon many occasions, and have never found it to fail.

Useful Information.

First Introduction of Coaches.

Coaches came into general use in England earlier than on the continent of Europe. Queen Elizabeth's state carriage was the first vehicle which was designated by that name in the island. In 1583 the Queen rode from the Somerset House to Paul's Cross, to return thanks after the destruction of the Spanish Armada, in a coach presented to her by Henry, Earl of Arundel. It is described as "a chariot throne, drawn by two white horses." The royal fashion found many imitators; and although the coaches of that period must have been clumsy and uncomfortable, they multiplied so rapidly that Dekker, satirizing the follies of his day, complains that "the wife of every citizen must be jolted" now—a very expressive phrase, since the coaches were made without springs, and the roads were of the most primitive kind, But long after the introduction of coaches it was considered effeminate and disgraceful for men to use them.

Queen Elizabeth always preferred to make her journeys on horseback, and even in old age and sickness took reluctantly to her coach. "In Sir Philip Sidney's time," says Aubrey, "so famous for men-at-arms, it was then held to be as great a disgrace for a young gentleman to be seen riding in the street in a coach as it would now for such a one to be seen in the street in a petticoat and waistcoat; so much has the fashions of the time altered." Like most other improvements, coaches were vehemently attacked, on the ground that they promoted effeminate luxury.

Taylor, the water poet, declares "that housekeeping never decayed till coaches came into England; and much later, in 1673, a Mr. John Cresset wrote a pamphlet urging the abolition of the stage coaches between London and the interior. Among other grave reasons for their suppression, he urged that "such stage coaches make gentlemen come to London on every small occasion, which otherwise they would not do but upon urgent necessity; nay, the convenience of the passage makes their wives often come up, who, rather than come such long journeys upon horseback, would stay at home. Then, when they come to town, they must presently be in the mode, get fine clothes, go to plays and treats, and by these means get such a habit of idleness and love of pleasure as to make them uneasy ever after."

Converting Paper into Leather.—It is said that an establishment in Pittsburgh, Pa,. has a process for treating paper which makes it much harder and tougher than leather, and so elastic as to resist almost any blow without perceptible compression, while it can be worked very easily and cheaply. A French inventor has a similar process, and is now in this country making arrangements for an exhaustive trial of the material for ship armor. It has been approved of by several naval officers who have seen it, and who express an opinion that most valuable service may be rendered by it.

Improvement in Castor Oil.—An Italian chemist named Croppi, a resident of Forli, has discovered a process by which castor oil is rendered tasteless and odorless, while its efficacy and emetic quality, which makes this best of cathartics repugnant to so many, is not in the least lessened. Sig. Croppi's invention will prove a great blessing to consumers of castor oil, and its introduction into American medical practice will undoubtedly follow.

Air Guns.

Probably the most perfect air guns in the world are those made in London for the use of British poachers. As they make no smoke, and consequently no smell, they are not so easily detected as firearms when used in game preserves. It is a mistake, however, to suppose that they make no noise. When charged, so as to produce the effects above described, the report is quite sharp—fully as sharp as that produced by gunpowder. When lightly charged, the report is of course diminished; but the force with which the bullet is projected is also proportionately lessened, and so is the recoil. As a weapon for secret assassination, therefore, the air gun does not possess much advantage over a good rifle-cane.

Few persons are, however, aware of the slight charge of powder or air that is necessary to produce a fatal wound at short distances. Experience teaches us that a bullet that will go through a half-inch board will kill a man if it strikes him in a vital and not too well protected part. Now a bullet can be projected from a rifle with a force sufficient to pierce such a board at twelve paces, by means of a charge of powder not greater than that which will lie on a silver three-cent piece; and provided the charge be ignited quietly, as by a pill lock, the noise of the explosion will not attract the attention of persons who are sixty yards distant. The small pistols in common use make very little noise, except when discharged in confined places; and yet, if the ball should strike a vital part, death may be caused instantaneously by a wound from them. The only advantages possessed by the air gun are its perfect cleanliness and the fact that the parts are not liable to be corroded and rusted. It never requires cleaning; but the labor of charging the condenser may be fairly offset against the labor involved in cleaning ordinary fire-arms after they have been used.—*Industrial Monthly.*

A Neglected Source of Food—The African Earth-Nut.—Dr. Muter, in the pages of *The Food Journal*, calls attention to what he terms a neglected source of food. Some time ago while investigating cocoa by means of the microscope, he discovered an ingredient employed by way of adulteration to which he could give no name. Subsequently, he had a sample of a substance offered at the Mark Lane Exchange as an article of food for cattle, forwarded to him for analysis. It now becomes necessary to deal with the matter seriously, and so further microscopic investigation led to the discovery that the mysterious ingredient was simply the flour of the African pea or earth-nut. Dr. Muter declares, however, that the bean of this peanut is an excellent substance, which, instead of being used only as food for cattle, or by some adulterators more enlightened than their neighbors, should be everywhere recognized as a marketable article of human diet.

The True Vitality of Life.—The mere lapse of years is not life. To eat and drink and sleep; to be exposed to the darkness and the light; to pace round in the mill of habit and turn thought into an implement of trade—this is not life. In all but a poor fraction of the consciousness of humanity is awakened; and the sanctities will slumber which will make it worth while to be. Knowledge, truth, love, beauty, goodness, faith, alone can give vitality to the mechanism of existance. The laugh of mirth that vibrates through the heart; the tears that freshen the dry wastes within; the music that brings childhood back; the prayer that calls the future near; the dout that makes us meditate; the death that startles us with mistery; the hardship that forces us to struggle; the anxiety that ends in trust—are the nourshment of our natural being.

Facts for Business Men.

My success is owing to my liberality in advertising.—Bonner.

Advertising has furnished me with a competence.—Amos Lawrence.

I advertised my productions and made money.—Nicholas Longworth.

Constant and persistent advertising is a sure prelude to wealth.—Stephen Girard.

He who invests one dollar in business should invest one dollar in advertising that business.—A. T. Stewart.

A Novel Rat Trap.—A resident of Newburyport, Mass, whose house is infested with rats, has a novel method of capturing them. On returning at night he sets his traps, which consists of a number of lines, to which are attached tomcod hooks covered with bits of meat. These are suspended a few inches above the floor and connected by a cross line, to which is attached a line running to his bedside, which rings a small bell when a rat is caught. The rats go for the bait, the bell rings and the watcher enters with a club and exterminates them.

Advice to Working Men.—Above all, to be a successful mechanic, you must be a mathematician. Unless you can conquer the mathematics of this trade, you will always have to drudge at the hardest work done. With a thorough practical knowledge of the work and the principles underlying it, you will soon rise above the lathe and file. Study and work together.

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SAN FRANCISCO:

Saturday, March 8, 1873.

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REDWOOD CASKS.—Experiments have been tried with the view of substituting the Redwood for Oak, in the making of wine casks, and it seemed for a time as though it might prove a success; but now there comes up a different view of the subject, which will be found by turning to our Agricultural notes, this week under the head of Napa county, to which we refer the reader.

COMMUNICATIONS.—We have a number of letters and communications on hand, which the writers, doubtless, expect to see, or see noticed, in this number of the PRESS. Our paper usually goes to press on Wednesday or Thursday morning, so that anything received later than Monday is almost necessarily put over till the next week.

FOOTHILLS.—We have received a letter from Mr. Charles Fishback, asking information about foothill lands. We would answer his letter, but he failed to give us his Post Office address.

CHERRY CULTURE.—An article of considerable interest we think, on cherry culture, is necessarily deferred one week to enable us to illustrate the same with proper engravings.

OAKLAND FARMERS' CLUB.—The report of the last meeting of the Club will be given next week. The next regular meeting of the club will be held on the 14th inst.

HON. C. C. COLE has our thanks for seeds from the Department of Agriculture.

NEW POTATOES, fresh from the soil, the size of hens' eggs, are upon the market.

The Grain Sack Question.

This seems to us to be one likely to take considerable time to remedy—unless Congress promptly repeals all duties on the importation of burlaps, as petitioned for by the Farmers' Clubs. It seems to us that the method of sacking the grain for transportation has a greater adaptability to our long dry seasons and large harvest fields, than in any other part of the world. If Mr. Capp's idea is good,—as set forth in RURAL of last week,—that the farmers can, unitedly, by witholding their grain, force buyers to take it in bulk, would it not be just as easy then by the same means to force them to furnish sacks free, and a good deal handier for the farmers; or make them pay extra for the sacks? Do not the farmers now get considerable more than they otherwise would if the English buyers did not finally sell the bags for at least something in England? The best way is to build more jute factories, and make the bags here and in such quantities as may be wanted, say at a cost of eight to ten cents. It can be done. It is being done. We would soon work out machinery to do it still cheaper. What a help that would be to the grain producers of this Coast. How many millions annually?

The next best thing is to abolish the tariff on burlaps alone. We can make up all the sacks needed in three months at a cost of not over one cent each, and that would be better than supporting the hand sewing laborers of England. "The Gods help those who help themselves," and our farmers are just beginning to realize this in one sense, and hearty co-öperation will do more for them than any one has yet foretold.

We say down with any tariff that supports 75 per cent. on articles necessary for the prosperity of any industry.

Silk in the United States.

It is gratifying to learn that one of the most important manufacturing interests of the more industrial nations of Europe, is also steadily and advantageously gaining ground in our own country; we allude to the manufacture of silken goods. A cotemporary chronicles the following facts and figures in relation thereto, but omits to tell us that the raw silk from which these fabrics are wrought, are obtained almost entirely from foreign countries where cheap labor is the rule.

The silk interest has grown in the last few years much beyond what has been generally supposed. A report issued by the silk manufacturers of America states that the growth of this production is steadily increasing. Within a decade it has sprung from an insignificant and unpromising experiment, and now bids fair to become one of the lucrative branches of our varied industry.

There is said to be at this time a capital of over $30,000,000 invested in the business in this country, against less than $3,000,000 in 1860. Sixteen thousand operatives are employed, earning $8,000,000 per annum, and weaving between $30,000,000 and $40,000,000 worth of silk goods in a year. The report assigns as one of the drawbacks to a more speedy development, the fact that the California raw silk must all be sent to Europe to be reeled, the improved machinery necessary for that purpose not having, strangely enough, found its way as yet to this country. The American silks are universally admired, both in this country and in Europe, and when our facilities are matured will be able to to compete with the world.

EARLY SPRING WHEAT.—Our thanks are due to Senator Casserly, Washington, for a package of (Oran) Early Spring Wheat, which we will distribute to applicants in small papers of about an ounce each, as long as it lasts.

Oran is a city of Algeria and capital of a province of the same name, 200 miles W. S. W. of Algiers, at the foot of a hill called the Peak of St. Croix. This wheat may prove a valuable acquisition to our list of spring grains.

FARMERS' UNION.—April 9th is the day upon which the meeting of the California Farmers' Union is to be held in this city. We have heard from several new Clubs, and they will be represented. Discussions and action on some of the important questions, virtually affecting the present and future welfare of the farmer, will be among the prominent objects of the meeting.

HORTICULTURE.

A Crystal White Blackberry.

During our visit to the great Cincinnati Exposition last summer, we met with James N. Veazey, of Covedale, Hamilton county, Ohio, who informed us of the above named fruit. This berry, one of the greatest curiosities in the berry family, and considered a valuable variety, was originated in Kentucky. It is said to be a beautiful transparent white, very juicy, and has a peculiar and delicious flavor. Why it was not called White Berry we cannot tell, unless the shape of the berry, which is very much like the black sorts, led the person who found it to call it White Blackberry, and on account of its beautiful clear color it was finally called the Crystal White Blackberry, a name very well, it was thought, adapted to it. The bush is very distinct from the black sorts, the stalk being a pale, yellowish white, and leaf pointed, a very vigorous grower and perfectly hardy.

Mr. Veazey informed us that this berry never failed to produce a crop, and that the bush is entirely free from blight or rust which was with him so prevalent among the black sorts. It is productive, and he found the fruit would sell for three or four times as much as the black kinds. When taken to the Cincinnati markets it created such an excitement on account of its beauty, extra quality and rarity, that it sold readily for one dollar per quart. It may in time become a valuable market variety, and it may be worth while for some of our fruit cultivators to send for some of these plants. The same parties have, as they told us, the large, early and handsome variety called the Parnell Raspberry. It originated near Cincinnati, from the excellent and practical horticulturist from whom its name is derived.

It has been in culture for ten years. It is very productive and a good stand-up grower—requiring no stakes or other support. The fruit is red and firm, of the largest size and very handsome, commanding the highest prices in the market. It received the first premium for several years at the Cincinnati Horticultural Society, over all others, as we can personally bear witness while we were a member. It is much earlier than most other raspberries.

Raising Fruit.

Some orchardists prefer growing their trees from the seed and then grafting or budding the stocks with the desired varieties of fruit. In this manner one can train them exactly to our own liking, But, of course, this is rather a tedious method of forming orchards. The most common and speediest method is to purchase 2-year-old trees of different sorts from the nurseries, by which much time is saved, if not money. If the latter mode is adopted do not cut back the tops until they commence growing in the spring. Horizontal limbs are most to be encouraged. Upright shoots near the top if left, will be apt to be broken down when they come to bear heavy crops of fruit, though this should be partially obviated at least, by taking the pains, which is seldom done, to thin out superabundant fruit.

One leading upright shoot in young trees should be left to form the principal stem or trunk. Two upright shoots are apt to split down when bearing much fruit on them. In pruning, long swinging limbs should be avoided, but strong branches created by spur pruning should be effected by that valuable operation. This spur pruning, however, should be done only moderately. Equalize as much as possible the whole growth all over the trees.

Pear trees require their spurs to be kept shorter than apple. Plum trees longer again.

With regard to apples, it depends a great deal upon the variety. The Newtown Pippin, a favorite fruit both East and West, makes naturally but few spurs, the White Winter Pearmain many, and so we advise all orchardists to be very cautious about employing men to prune their trees who do not adopt the principles just named, or who have not had the proper experience, and the advice of intelligent and competent cultivators.

ROBERT MANNING tells the *Horticulturist* that none of the pears recommended by the American Pomological Society, or in the usual lists for general cultivation, will rot at the core, provided they are gathered in season, and ripened in the house.

Climates, Soils, Seasons, Etc.

The climate of California is so peculiar, or rather its climates are, for we have a great variety of them, that treatises and directions well adapted to the Northern States, or the Middle or Eastern, we are obliged to follow very cautiously, or rather hardly to attend to them at all. Our seasons, also, differ very much with regard to heat or dryness, so that we are necessitated to originate almost an entirely new set of rules and principles. English works, too, require the exercise of a still greater degree of judgment in the reader, the climate of England being generally throughout the year still more cool and humid than the States to the east of us. Our mild winters admit of garden work nearly every day of the year.

All the heavy operations of trenching, manuring, laying out, pruning and planting trees, shrubs, and both tender and hardy ornamental plants, are at that season properly and conveniently performed. In this particular aspect to be sure, our climate is somewhat similar to that of the South of England or the regions bordering on the northern shores of the Mediterranean. Hence while the calenders of operations in works prepared for the Northern or Eastern States seldom agree with our practices, those in England and some other parts of Europe are often found, in some measure, to coincide with it. But even where the time of performing certain operations is the same in some other countries, the long, dry summer, and still milder winters, of this climate, often render necessary a peculiar mode of performing them.

We need, then, works upon gardening and pomology, etc., especially adapted to our latitude and wants. The necessity of this is felt by every horticulturist in our midst. We want works that are practically adapted to our climate, habits and requirements. It is very desirable that those varieties of trees and plants should be pointed out which experience has proved are best adapted to our orchards and gardens. We trust that some of our best and most practiced fruitists and gardeners and those who by sufficient education are best fitted for the task, would find time to publish treatises and guides (such men as Mr. Llewellyn, of San Lorenzo, for instance, and others) suited for our climate, soils and seasons. These works might at first starting off be made brief and concise. We hope to see some such at an early period.

Althœa Frutex.

This handsome showy shrub is properly an Hibiscus—a very numerous genus, comprehending no less, now, than forty or more species, most of them inhabitants of either India. It produces its flowers rather late in the season, but is a fine, hardy ornamental plant. The flowers are bell-shaped and of various colors, pale or bright purple with dark bottoms, white with purple bottoms and yellow with the same.

These flowers being large, gay and numerous and the shrub of compact, rather tall and good conical shape, make an attractive appearance, and give the completest idea of the classical character. These shrubs grow naturally in Syria. Many of them are now grown double in their flowers which form a valuable and beautiful variety. They are well suited for lawns as well as gardens. They rise with shrubby stalks to the hight of 8 or 10 feet. The several varieties may be propagated by grafting upon each other, which is the common method of propagating the sorts with striped leaves. Their late blooming is an advantage when other flowering shrubs are more scarce. They remain a long while in bloom, and the flowers are very numerous.

FUCHSIAS FROM SEED.—Fuchsias are readily grown from seed, and usually vary widely from the original stock. The seed pods should be allowed to remain on the plant until they fall off; then lay them aside for a few days, or until they begin to decay. The seed may then be washed from the pulp and spread upon paper to dry. They may be sown immediately, or kept for a few months in paper bags. Sow the seed in fine, sifted soil composed of leaf mould and sand, covering not more than an eighth of an inch deep; sprinkle the soil with water, being careful not to wash away the seed; then place the pots or boxes containing them in a warm place, giving water as required. When the seedlings are large enough to handle, pot off singly into small thumb pots. As the plants become large and strong, shift into larger pots. —*Rural New Yorker.*

The Probable Periodicity of Rainfall.

At the last meeting of the California Academy of Sciences, the President, Professor George Davidson, of the U. S. Coast Survey, read a paper on "The Probable Periodicity of Rainfall," which was accompanied with diagrams illustrating the average of rainfall in California for 23 years, and which. as it is a subject of great interest, we publish with the cuts. Professor Davidson said: Many attempts have been recently made to establish a periodicity of rainfall commensurate with the eleven year period of the solar spots. In limited cases the law has appeared to prevail, but in cases as apparently reliable the results have been adverse. In an extended series of observations of the rainfall in England, stretching through 150 years (British Association Report for 1866) no such maxima and minima could be deduced; and in a series of observations, over various parts of the globe, gathered by G. J. Symons, in number 165 of *Nature*, the same want of law is manifest; in fact, where maxima of rainfall should be expected, we find minima, and *vice versa*. These tables are, however, too limited to deduce a general law therefrom. The materials are at hand for a much more comprehensive treatment of the problem.

But if there is a law in such cases isochronons with the exhibition of the sun spots, it must be qualified by other variable functions than rainfall; such as the temperature and pressure of the atmosphere, the amount of aqueous vapor in the atmosphere, the direction and force of the winds, and the climatology, not only of the adjacent ocean, but of the sources of the great currents that cross the ocean. For example: if the rainfall of the Western Coast of Europe is assumed dependent upon the same causes which occasion the solar spots, the epochs of the maxima and minima rainfall would not coincide with those of the solar spots, because the precipitation of rain and the temperature of the seaboards of Ireland, Scotland, Norway, Iceland, Spitzenbergen, etc., depend upon the temperature of the Gulf stream bathing those shores; and the waters of the Gulf of Mexico heated to a maximum at a given epoch would not reach the coast of Norway for possibly a year. The same is true of this Coast; the heated waters of the great Japan stream, at their point of departure at the Island of Formosa do not reach this Coast for more than a year. Thus whilst these superheated waters are delayed one year in reaching their destinations, the climatic conditions of the Coasts of Norway and of California, supposed to be governed by a regular law, have been changed and the problem is complicated and masked by these changes in the nearer effects of the climate of the adjacent continents; and in the European case, of the Polar Basin.

If there is a law of the rainfall, there will naturally be a similar law for the temperature and pressure of the air and for the winds; but it must be complicated and masked by the influence of great ocean currents, so that the problem instead of being simple, as it first appears, is in reality very intricate.

An attempt has been made to give an eleven year period to the cyclones in connection with the rainfall, but evidently upon insufficient data, for Mr. Meldrum only claims that a supposed periodicity has been made out. Lockyer (*Nature*, No. 163) in discussing Mr. Meldrum's records and others at Madras and the Cape of Good Hope, sees in them indications of a periodicity, but his discussion is merely tentative from insufficient materials and is not satisfactory.

The same eleven-year period has been assigned to the seasons of great freshets in California; but we need, what we cannot obtain, absolute observations over extended areas, and not mere reports to aid in its establishment. The statement was common in the west that the greatest freshets occur on the great rivers of the Western States about every ten years.

I have had placed in graphical order the rainfall at San Francisco for 23 years, from Mr. Thomas Tennent's observations and exhibit it to show that we cannot, from it alone, predicate any periodicity. Even the well marked short period of comparatively little rainfall and of clear weather during each of our wet seasons is masked in the averages of monthly rainfall in these years by its not occuring at any well defined epoch. But its existence is well marked and established in the illustration of the monthly rainfall from 1849 to the present.

In the graphical illustration of the rainfall at San Francisco, the vertical black lines shown in Fig. 1 indicate the inches of rainfall each year. The average annual volume of rainfall throughout twenty-three years for each month from June to July is shown in Fig. 2. The short dry period of each wet season is there shown to be marked. In Fig. 3 the average monthly and annual volume of rainfall for every month to the present year is exhibited.

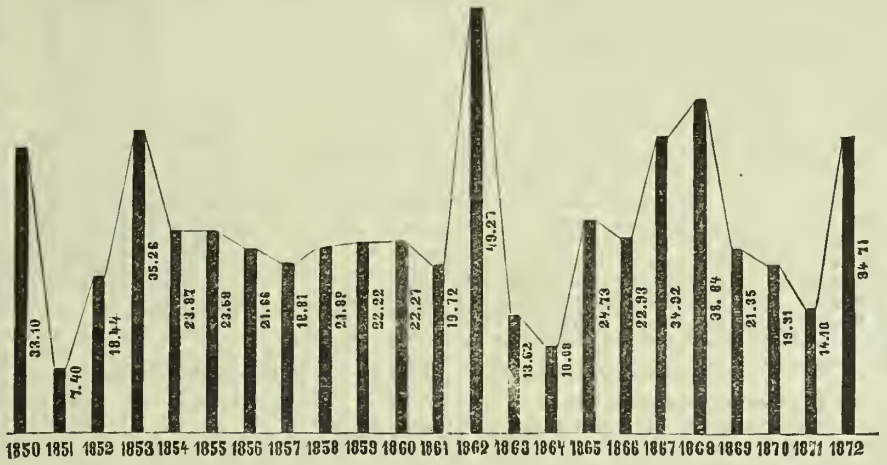


FIG. 1—YEARLY RAINFALL AT SAN FRANCISCO FOR 23 YEARS.

This is on a scale of inches one-half that of Fig. 2. In this the break in the wet season of most of the years is plainly marked, but it does not occur with any regularity as to time.

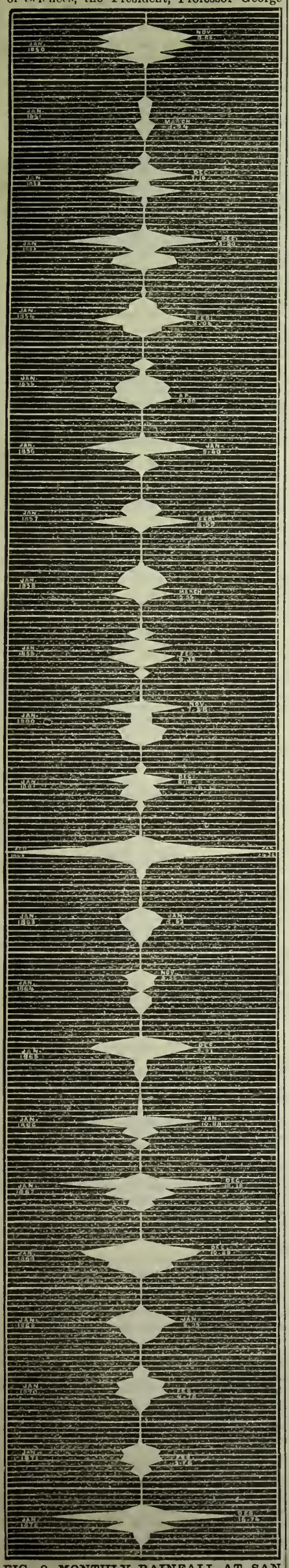
To arrive at a law of periodicity in atmospherical phenomena will demand a comprehensive scheme of observation over a large extent of the earth and ocean; this scheme to involve all the conditions of atmospherical variations and the local relations of each station to the whole and be represented in graphical rather than in numerical order.

I believe in the law of periodicity of these phenomena, but it will be found an intricate



FIG. 3—AVERAGE MONTHLY RAINFALL FOR 23 YEARS.

problem and is doubtless involved with such conditions as the lunar cycle of 19 years, etc. As stated in my paper last year upon "the Cosmical Origin of Physical Phenomena on the Surface of the Earth," we must expect abnormal exhibitions of these phenomena from the irregular exhibition of the materials burning upon the surface of the sun; but in a prolonged series of spectroscopic observations of solar phenomena and observations of physical phenomena on the earth, we will eventually arrive at the law of their recurrence.


NOV.
JAN.
MARCH
DEC.
JUNE
JULY
JAN.
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JAN.



Truths for Wives.

In domestic happiness, the wife's influence is much better than her husband's; for the one, the first cause—mutual love and confidence being granted, the whole comfort of the household depends upon trifles more immediately under her jurisdiction. By her management of small sums, her husband's respectability and credit are created or destroyed. No fortune can stand the constant leakages of extravagances and mismanagement; and more is spent in trifles than women would easily believe. The one great expense, whatever it may be, is turned over and carefully reflected on ere incurred; the income is prepared to meet it; but it is pennies imperceptibly sliding away which do mischief; and this alone the wife can stop, for it does not come within a man's province. There is often an unsuspected trifle to be saved in every household.

It is not in economy alone that the wife's attention is so necessary, but in those niceties, which make a well regulated house. An unfurnished cruet stand, a missing key, a buttonless shirt, a soiled table cloth, a mustard pot with its old contents shaking hard and down about it, are really nothings; but each can raise angry words and cause discomfort. Depend upon it, there is a great deal of domestic happiness about a well dressed mutton chop, or a tidy breakfast table. Men grow sated of beauty, tired of music; are often too wearied for conversation, however intellectual; but they can always appreciate a well swept hearth and smiling comfort.

A woman may love her husband devotedly—may sacrifice fortune, friends, family, country for him—she may have the genius of a Sappho, the enchanted beauties of an Armida; but, melancholy fact—if with these she fails to make his home comfortable, his heart will inevitable escape her. And women live so entirely in the affections, that without love their existence is void. Better submit, then, to household tasks, however repugnant they may be to your tastes, than doom yourselves to a loveless home. Women of the higher order of mind will not run their risk; they know that their feminine, their domestic, are their first duties.

THINGS TO FORGET—A LESSON FOR GIRLS. It is an excellent thing to have a good memory as a rule; but it is quite as good to have a poor one sometimes. There are some things it would be a blessing to forget. Angry remarks and bitter retorts are amongst them; but, alas! a thousand good words are forgotten, while the bad one is remembered forever. It is far easier to learn an idle, senseless jingle of rhymes, than a beautiful hymn or poem. Do not waste your time and attention over what you would some day give much to forget. Slanderous words are far better forgotten than remembered. One of the best helps to forgetting is never to speak of them, not even in a whisper. If you hear a play mate say something unkind of another, keep it to yourself. She will forget it pretty soon, and feel as kindly as ever towards the person. But if you tell of it then what a storm you will raise? How the girls will take sides, and two parties will be formed; and very likely the girl's parents will join the quarel, and the whole neighborhood will be in a great uproar, just because of that cross word you had so much better let die. What would you think of a person who went along picking up all the old burrs and thistles he could find, and then fastening them on to people? Just such nuisances are those malicious thoughtless words. Don't pick them up, and they will do but little hurt.

INFLUENCE OF SCENERY.—It is wonderful how the feelings of all our hearts are soothed and softened by beautiful scenery through which we pass. There is something, I know not what, in the aspect of nature in her loveliness, that has a strange gift of happiness; and could I choose, when any of life's great misfortunes fall upon me, I should desire to be carried to some new and magnificent scenes, certain that I should thence derive greater consolation than the tongue of eloquence ever yet poured forth. Is it, that in the presence of the great and lovely works of God, the petty cares of humanity are proved? or is it, that their beauty and harmony convince the soul of His goodness and His love while their majesty brings to our small senses a tangible image of His great power, and the whole shows that his will is right.

The Coyote—A Lively Description.

The coyote is an inhabitant of the north and southwest of the United States and Mexico, and is well-known to all Californians. It is found from Mexico to the Saskatchewan. It is from thirty-five to forty inches long, with a tail large and bushy, about fifteen inches long, with large ears, a sharp, fox-like muzzle, four toes on each foot, and on the fore-feet a sharp claw on the inside, two inches above the ground, attached to the rudimentary thumb. In color it is usually of a dull, yellowish gray, with black cloudings, the under parts of a dirty white. It is very fleet on foot, and can outrun almost every other animal in the same range. Naturalists call it *Canis latravis*, or *Lyciscus latravis*, meaning the thieving wolf—a fit name for this stealing rogue.

We lately saw an article in the Evans *Journal*, by J. W. Steel, giving an account of the coyote. He differs from most naturalists, in making him slow of foot. On the contrary, like all the wolf and fox tribes, they are fleet of foot; but be this as it may, they are remarkable for their cunning and thieving propensities. He, in common with all his tribe, eats almost anything that comes in his way. A number of them will sometimes attack a lonely buffalo, and after dodging and molesting him for days together, will wound him and bring him to the ground. He is fond of eggs, and of birds, and by his ingenuity makes out to capture them. But the great business of his life is to steal; he will steal everything that comes in his way.

Mr. Steel says he will gnaw the twisted lariat from the pony's neck, and drag away the saddle and chew it up beyond recognition by its owner. He will enter into the open barrack window and steal the accoutrements from the soldier's bedpost and his shoes from under his pillow. He will walk backward and drag a dry hide a mile from where he found it. It would seem that he does not steal these things for food; but he steals as some men do, because he is a thief by nature. His howl, or bark, is very peculiar, and he keeps it up all night, to the great discomfort of the campers. These animals have their homes only on the plains and open prairies. The coyote figures largely in the legends of the old pioneers, who crossed the plains before the age of railroads. But like the Indian, the elk, and the buffalo, he is fast disappearing.

OUR DEPENDENCE ON EACH OTHER.— We are emigrants crossing over the plain together. God mixed things in this world. We are trying to select and bring things together that they shall be just alike; but God keeps things mixed. All classes of people are thrown together. You cannot sift out the poor from the community. The rich may buy land and lay out streets and build houses and keep away from people that are low and not allow emigrants to come near them—in a little corner they can do it; but in some way or other an equivalent will come up. The poor are indispensable to the rich. The roots of the prosperity of the rich grow among common folks. The life of a tree is dependent upon its roots. If the bottom suffers, the top will suffer also. And so men are dependent upon each other. You cannot get out of your social connections in society. We are mixed up, good and bad, honest and dishonest, just and unjust, mean and honorable. Men plead that, in all the innumerable ways in which they are brought in contact with their fellow men, they are tired of men. Well, I am tired of men, too; and what do I do? Just what I do when I am tired of anything else. I go to sleep and become rested and refreshed, and then get up and go at it again.— *Beecher.*

TRIALS NOT WITHOUT BENEFIT.—Adam Bede had not outlived his sorrow—had not felt it slip from him as a temporary burden, and leave him the same man again. Do any of us? God forbid. It would be a poor result of all our anguish and our wrestling, if we won nothing but our old selves at the end of it—if we could return to the same blind love, the same self-confident blame, the same light thoughts of human suffering, the same frivolous gossip over blighted human lives, the same feeble sense of that unknown toward which we have sent forth irrepressible cries in our loneliness. Let us rather be thankful that our sorrow lives in us as an indestructible force, only changing its form, as forces do, and passing from pain into sympathy—the one poor word which includes all our best insight and our best love. *George Eliot.*

MOTHERHOOD.—Mrs. Harriet Beecher Stowe speaks of motherhood in a pretty way, when she says: "It would sometimes seem as if motherhood were a lovely artifice of the great Father, to wean the heart from selfishness by a peaceful and gradual process. The babe is self in another form. It is so interwoven and identified with the mother's life that she passes by almost insensible gradations from herself to it; and day by day the instinctive love of self wanes as the child loves waxes, filling the heart with a thousand new springs of tenderness."

Bell-Wethers.

Men, like sheep, go in flocks, and like them, too, have their bell-wethers. Reader, who is your bell-wether? Whom do you follow? It is quite natural and right that children should have teachers and leaders, and that they should obediently follow as directed, but it is expected that every man who has attained his majority will think for himself, throw off slavish restraints, and, in the sight of heaven emancipate himself. In monarchical countries where the people are "subjects," it is expected that they will follow their king, their queen, their emperor or empress, their priest, or their governor; but in this country we bow only to God. Those whom we appoint to office are simply our servants. Those whom we choose for presidents, senators, representatives, etc., are subject to the people, who select and elect them for a limited period of service. In any case they may be expelled for misbehavior. Taking their cue from the old country customs, too many new-comers are man-worshipers, and are led by the nose according to the wills of ambitious men. Here we have a free press and a free pulpit, with a common school education free to all. Here, we propose that intelligence shall lead, and that no arbitrary will shall for a moment usurp the rights or privileges of American citizens. Reader, who is your leader? or what bell-wether do you follow?—*Phrenological Journal.*

STYLE IN OLD TIMES.—In 1762, Governor Hancock received his guests in a red velvet cap, within which was one of fine linen, turned up over the edge of velvet one or two inches. He wore a blue damask gown, lined with silk, white satin small clothes, white stockings, and red morocco slippers. The judges of the Supreme Court of Massachusetts, as late as 1773, wore robes of scarlet, laced with black velvet, and in summer, black silk gowns. Gentlemen wore coats of every variety of color, generally the cap and collar of velvet, of a different color from the coat. In 1780, General Washington arrived in New York from Mount Vernon, to assume the duties of the Presidency. He was dressed in a full suit of Virginia homespun. On his visit to New England he wore the old Continental uniform, except on the Sabbath, when he appeared in black. John Adams, when Vice President, wore a sword, and walked about the streets with his hat under his arm. At levees in Philadelphia, President Washington was clad in black velvet, his hair powdered and gathered behind in a silk bag, yellow gloves, knee and shoe buckles. He held in his hand a cocked hat, ornamented with a cockade, fringed about an inch deep with black feathers. A long sword in a white scabbard, with a polished steel hilt, hung at his hip.

HOME CONVERSATION.—Children hunger perpetually for new ideas, and the most pleasant way of reception is by the voice and ear, not the eye and the printed page. The one mode is natural, the other artificial. Who would not rather listen than read? An audience will listen closely from the beginning to the end of an address, which not one in twenty of those present would read with the same attention. This is emphatically true of children. They will learn with pleasure from the lips of parents what they deem it a drudgery to study in books; and even if they have the misfortune to be deprived of the educational advantages which they desire, they cannot fail to grow up intelligent if they enjoy in childhood and youth the privilege of listening daily to the conversation of intelligent people.

Let parents then, talk much and talk well at home. A father who is habitually silent in his own house may be, in many respects, a wise man; but he is not wise in his silence. We sometimes see parents who are the life of every company which they enter, dull, silent, uninteresting at home among their children. If they have not mental activity and mental stores sufficient for both, let them first provide for their own household.

THE SEXES.—There are more males than females born by 4 per cent. At the age of 20 there are more females than males. At the age of 40 the preponderance is again on the other side, and there are more males than females. At 70 the sexes are again even. Between 70 and 100 years there are more women than men, or an excess of 5 per cent. The mortality of woman is greatest between the ages of 20 and 40. After 40 years of age the probabilities of longevity, as is shown, are far greater for females than for males.—*Phrenological Journal.*

WOMEN are formed for attachment. The gratitude is unimpeachable. Their love is an unceasing fountain of delight to the man who has once attained, and knows how to deserve it.

YOUNG FOLKS' COLUMN.

The Game of Clubs.

This game is exceedingly amusing when well played. The company who engage in the game divide themselves into two parties, each composed, if possible of equal proportions of ladies and gentlemen. These parties then draw together, at a distance from one another, and send out two members, a lady and gentleman, one from each portion. These deputies leave the room, and fix on some object or some historical character, whichever has been previously decided on by the company, and then return, the lady going to the club from which the gentleman was selected, and the gentleman to the other. The members immediately commence a brisk series of questions relating to the chosen article—for instance: "Is it animal, mineral, or vegetable?" "Is it in the room?" "Is it portable?" Everything, in fact, that can be thought of to throw light on the restriction in these respects, and the object being to discover the secret as soon as possible.

The moment either club arrives at the truth, the fact must be announced by a clapping of hands—this being the most unmistakable plan, and preventing subsequent dispute. Whichever side has penetrated the mystery the earliest, acquires the two members, and the game recommences, continuing till all have taken their turn, when the club that contains the greatest number of members is announced the winner. This game is a modification of the celebrated "Twenty Questions."

TIRED.—"Tired!" That's what my little girl says, as she comes in from her morning romp, and curls upon the sofa beside me, to rest. For once her chattering tongue is still, and I begin to think she is too tired. But another little waterproof whisks around the corner, with a story of the black pullet on the nest, and away goes the little girl. But night brings her to my arms again to be brooded, and cuddled, and tucked away to rest. But know she will be rested in the morning, and so I, with a kiss and a prayer lay her thankfully in her crib.

"Tired," so says Ranger, the dog, and we put down his blanket, and in five minutes he is curled up like a ball, sound asleep, unmindful of anything or anybody. He is resting. By and by, he will lie out at full length on his side, and sleep, and dream till morning. He looks as if he would never move again; but I know better. The morning will find him wide awake, with his early greeting for all. So I pat his soft fur and leave him, without a single worry or thought.—*Child's Friend.*

READ AN HOUR A DAY.—There was a lad who, at fourteen, was apprenticed to a soap-dealer. One of his resolutions was to read an hour a day, or at least at that rate, and he had an old silver watch, left him by his uncle, which he timed his reading by. He stayed seven years with his master, and it was said when he was twenty-one he knew as much as the young squire did. Now, let us see how much time he had to read in, in seven years, at the rate of one hour a day. It would be 2,555 hours, which, at the rate of eight hours a day, would be equal to three hundred and ten days; equal to forty-five weeks; nearly a year's reading. That time spent in treasuring up useful knowledge would pile up a very large store. It is surely worth trying for. See what you can do. Begin now. In after years you will look back upon the task as the most pleasant and profitable you ever performed.

YOUNG AMERICA WONDERS.—I wonder what makes papa tell such nice stories to visitors about his hiding his master's rattan when he went to school, and about his running away from the schoolmistress, when she was going to whip him, and then shut me up all day in a dark room, because I tried just once to be as smart as he has been?

Wonder what makes papa say that wicked word when Betsy upset the ink all over his paper, and then slapped my ears when I said the same thing when my kite string broke?

Wonder why mamma told Bridget, the other day, to say that she was not at home when Tommy Day's mother called, and then put me to bed without my supper every time I tell a lie?

O dear! there are lots of things I want to know. How I wish I was a man!

AVOID EVIL HABITS. It is related that an Indian once brought up a young lion, and finding him weak and harmless, never attempted to control him. Every day the lion gained in strength and became more difficult to manage. At last, when excited by rage, he fell upon the Indian and tore him in pieces. It is thus with evil habits and bad passions. They are like this lion. If indulged in youth, they will cause us much vexation in after life, and may perhaps destroy us. Youth, remember, and beware!

A CHILD'S MIND.—Go to a brick yard and take a brick freshly moulded, and press a leaf upon it; a gentle pressure of the finger will suffice. Yet subject that brick to the kiln, and it will come back ineffaceable. Build it into a house and you may see it across the street. The child's mind is the moist brick.

Stock Notices.



SULTAN SECOND.

See description in Pacific Rural Press January 4, 1873

Address N. GILMORE,
2v5-eow El Dorado, El Dorado County, Cal.

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his rauch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough-bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

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☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS." —*Alexander.* "You get no FIGS from THISTLES"—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
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Office and Rooms, in Webb's Building, 37 Second St., opposite the Grand Hotel.

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Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

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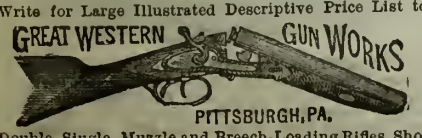
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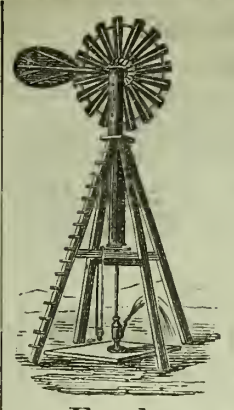
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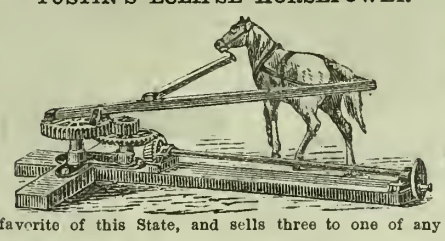
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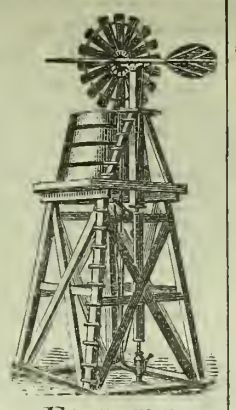
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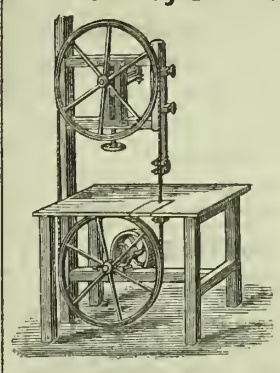
Is now the favorite of this State, and sells three to one of any other make.

☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the **Golden State Windmill**, which is an infringement on the **Celebrated "Eureka" Windmill**, for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

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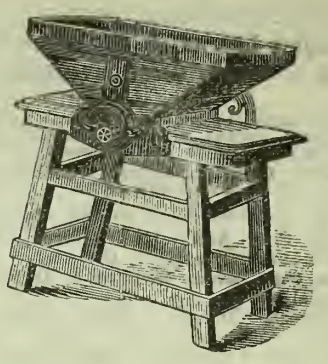
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Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., March 4th, 1873.

FOR WEEK ENDING FEBRUARY 18th, 1873.*

MAGAZINE FIRE ARM.—Alfred Swingle and Frank A Huntington, S. F., Cal.

PRINTERS CARD RACK.—Octavus A. Dearing, S. F., Cal.

WATER WHEEL.—Nicholas J. Colman, Railroad Flat, Cal.

BOLT CUTTER.—Leonard J. Chapman, Vallejo, Cal.

CAR AXLE BOX.—Caleb T. Fay, assignor to the Jeinsen Lubricator Co., S. F., Cal.

CAR WHEEL.—John W. Kern, Portland, Oregon.

RAILROAD BED.—John W. Kern, Portland Oregon.

TYPE CASTING MACHINE.—John A. T. Overend, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater secrecy and in much less time than by any other agency.

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There should be more gardens planted on this Coast. It would add pleasure and health to many, and enhance the value and attraction of their homesteads. To encourage the planting of seeds, and to extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers, seeds at one-half the usual San Francisco prices, when postage is added.

Send your orders and address plainly and fully written in such a manner that we can hand the sheet to our seedsmen to fill and send your order direct. Give the Nos. and names in the same order as printed below.

Enclose ONE-HALF of the following price for whatever you wish:

VEGETABLE SEEDS IN PAPERS, POST PAID.	CTS.
1. New Joint Pop Corn; A choice novelty	25
2. Joint Sweet Corn	12½
3. Early Michaux Peas	12½
4. Eng. Champion Sweet Peas	12½
5. Early Blood Turnip Beets	12½
6. Long Smooth Blood do.	12½
7. Early York Cabbage	12½
8. Large Late Drummond do.	12½
9. Early Scarlet Horn Carrot	12½
10. Long Orange do.	12½
11. Early London Cauliflower	12½
12. Early Paris do.	
13. White Solid Celery	12½
14. Early Short Green Cucumber	12½
15. Early White Spined do	12½
16. Long Purple Egg Plant	12½
17. Improved N. Y. Purple do.	12½
18. Early Curled Silesian Lettuce	12½
19. Romaine do.	12½
20. Fine Nutmeg Musk Melon	12½
21. Black Spanish do.	12½
22. Ex. Early Red Onion	12½
23. Yellow Danvers do.	12½
24. Ex. Curled Parsley	12½
25. Long White Parsnip	12½
26. Large Squash Pepper	12½
27. Large Bell do.	12½
28. Large Cheese Pumpkin	12½
29. Early Olive Shaped Radish	12½
30. Long Scarlet Short Top do.	12½
31. Early Scarlet Turnip do.	12½
32. Large Flanders Spinach	12½
33. Round Leaved do.	12½
34. Early White Scollop Bush Squash	12½
35. New Hubbard do.	12½
36. Extra Early Red Tomato	12½
37. Large Red Smooth do	12½
38. Trophy do.	12½
39. Early White Stone Turnip	12½
40. Red Top Strap Leaf do	12½
41. Long White French do.	12½
42. White Globe do.	12½
43. PurpleTop Ruta Baga	12½
44. Early China Dwarf Beans	12½
45. Early Snap Short do.	12½
46. Broad Windsor do.	12½
47. Large Wh. Lima pole do.	12½

FLOWER SEEDS. POST PAID—	CTS.
48. Aster—Mixed China	12½
49. Candytuft	12½
50. Canterbury Bells	12½
51. Carnation	12½
52. China Pink	12½
53. Chrysantheum	12½
54. Columbine	12½
55. Cypress Vine, Scarlet	12½
56. Daisy fine dbl	12½
57. Dew Plant	12½
58. Dianthus	12½
60. Forget-Me-No	12½
61. Four O'clocks	12½
62. Geranium	12½
63. Heartsease	12½
64. Heliotrope	12½
65. Hyacinth Beauty	12½
66. Ice Plant	12½
67. Ipomosis	12½
68. Larkspur in vars	12½
69. Love-lies-bleeding	12½
70. Lobella	12½
71. Love in a mist	12½
72. Lupin, assorted	12½
73. Lychnis, scarlet	12½
74. Marigold	12½
75. Mignonette	12½
76. Monkshood	12½
77. Morning glory, mix'd	12½
78. Nasturtion	12½
79. Pansy	12½
80. Petunia, mixed	12½
81. Pentstemon	12½
82. Picotee	12½
83. Phlox-Drummondn	12½
84. Pink, assorted	12½
85. Polyenthus	12½
86. Poppy, double white	12½
87. Portulaca, fine mixed	12½
90. Salvia	12½
91. Sat n Flower	12½
92. Sensitive Plant	12½
93. Snapdragon	12½
94. Stock Gilli	12½
95. Sunflower	12½
96. Sweet Alyssum, wh.	12½
97. Sweet William, yel'w	12½
98. Sweet Rocket	12½
99. Sweet Peas, mixed	12½
100 Verbena, finest mix'd	12½
101 Violet	12½
102 Wall flower, yellow	12½
103 Zinnia, fine mixed	12½

For other kinds of seeds, or for seeds in large quantities, patrons are referred to reliable seedsmen advertising in this paper. We wish to aid in increasing the planting and cultivation of gardens.

We are not going to embark in the regular seed business, and have not time to investigate or answer questions of private interest only, nor respond to orders received without remittances.

Subscribers will please notify neighbors who do not take this paper of this offer, and the merits of the PRESS.

In writing correspondence, items of information, or on other business, please use a separate sheet.

DEWEY & CO., Publishers,
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ALMOND TREES are still being transplanted in considerable numbers from W. W. Brier's nursery, Alvarado. We obtained some fine specimens of his "Languedoc" at T. Corley's, 315 Washington street, during the past week. Mr. C. makes a specialty of choice fruit-trees.

A CHROMO of spirited design and attractive print is offered free with *Crofutt's Western World*. The *World* is a cheap journal at $1 a year. The office of this progressive friend of our great West, is No. 138 Nassau street, N. Y.

California Farmers' Union Meeting, April 9th, 1873.

All Farmers' Clubs will take notice that there will be a called meeting of the above association, in San Francisco, at the Mechanics' Institute building, April 9th, 1873, at 3 o'clock P. M. Attention is called to the following provisions of the Constitution:

The members of this association shall consist of delegates from all permanently organized farmers' clubs, horticultural, vinicultural, wool and stock-growing societies in the State, organized for self-protection.

Each local society shall have a representation in this association of one delegate for every ten of its resident members, and one additional for every additional fraction of more than one-half of that number, provided that each club or society shall be entitled to one delegate.

Each club or society interested in the object of this association shall pay to the Secretary the sum of twenty-five cents for each of its members annually before being entitled to representation.

The Board of Directors have many subjects of vital interest to the farmers to lay before the meeting, and especially request every local club to send a full delegation.

JOHN BIDWELL, President.
I. N. HOAG, Secretary.

Laws Concerning Corporations.

[Under the New Code—January 1, 1873.]

GENERAL PROVISIONS APPLICABLE TO ALL CORPORATIONS.
WAGON ROAD CORPORATIONS.
WATER AND CANAL CORPORATIONS.
HOMESTEAD CORPORATIONS.
MINING CORPORATIONS.
LAND AND BUILDING CORPORATIONS.
ALSO, MINING PARTNERSHIP LAW.

A pamphlet containing the above provisions concerning Corporations has been printed from the Statutes of California. It furnishes those who wish these special laws an opportunity of obtaining them for the small sum of 25 cents (post paid). Address, DEWEY & Co., Publishers, and Patent Agents, S. F.

HINTS FOR INVENTORS. We will send on receipt of stamp for postage, FREE, our 52-page Circular, containing 112 Illustrated Mechanical Movements; a digest of PATENT LAWS; information how to obtain patents, and about the rights and privileges of inventors and patentees; list of Goverment fees, practical hints, etc., etc. Address DEWEY & CO., Publishers and Patent Agents, San Francisco.

THE NEW U. S. MINING LAWS.

The new Laws of 1872, governing the location and purchase of Placer and Quartz Mines and Agricultural Lands in Mining Districts of the U. S., printed in circular sheet, for sale at this office. Single copies, 25 cts. Usual discount to the trade.

THE SMITHSONIAN INSTITUTION has received from the publishers, San Francisco, MINING AND SCIENTIFIC PRESS, VOL XXIV, a gift for which it returns a grateful acknowledgment. JOSEPH HENRY, Sec'y T. S. I.
Smithsonian Institution, W. C., Feb. 4, 1873.

Send us Communications.—They will be respected. If you have not time or the experience to write finished articles, send us facts brief and plain. We will take care of them. Remember that writers improve themselves with others by use of the pen. Officers of societies, clubs and meetings, please report.

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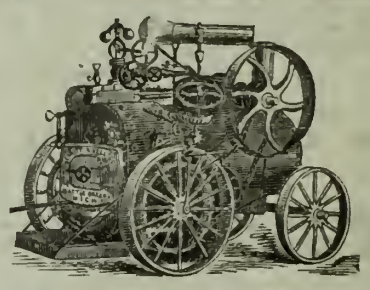
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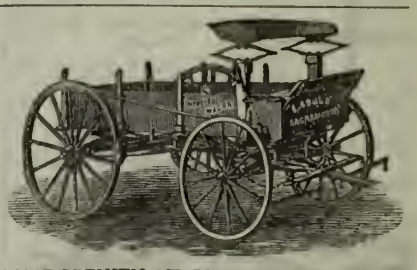
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E. SOULE,
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S, F. and Liverpool Average Prices of Wheat.

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡— Average monthly decrease.

¶—The difference here noted is that between the average price of average shipping wheat in S. F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873	SAN FRANCISCO.								LIVERPOOL BY TEL.				DIFF.¶
DATE.	COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	CALIFORNIA AVERAGE.		CALIFORNIA CLUB.			
Feb. 3	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	..	2 98	@3 01	3 07	@3 19½	1 07½	
4	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 98	@3 01	3 07	@3 19½	1 07½	
5	1 75 @1 85	....	1 90 @1 95	....	1 90 @2 00	....	2 96	@2 99	3 05	@3 18½	1 05½	
6	1 60 @1 85	†½	1 90 @1 92½	†¼	1 90 @1 97½	†1¼	2 96	@2 99	3 05	@3 18	1 06¼	
7	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 97½	....	2 96	@2 99	3 05	@ 18	1 06¼	
8	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 86	@2 99	3 05	@3 18	1 5¼	
10	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 96	@2 99	3 05	@3 18	1 05¼	
11	1 60 @1 80	....	1 90 @1 92½	....	1 90 @1 92½	....	2 92	@2 97	3 05	@3 18	1 03¼	
12	1 60 @1 80	†½	1 85 @1 90	‡3¾	1 85 @1 90	2¾	2 92	@2 97	3 00	@3 23	1 03¼	
13	1 60 @1 75	....	1 85 @1 87½	†1¼	1 85 @1 90	....	2 91	@2 95	3 09	@3 23	1 06¾	
14	1 60 @1 75	....	1 85 @1 87½	....	1 85 @1 94	....	2 93	@2 95	3 09	@3 23	1 07¾	
15	1 60 @1 75	....	1 85 @1 87½	....	1 85 @1 90	....	2 93	@2 95	3 09	@3 23	1 07¾	
17	1 60 @1 75	....	1 85 @1 90	†¼	1 85 @1 90	..	2 93	@3 95	3 09	@3 23	1 06½	
18	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93	@2 95	3 09	@3 23	1 06½	
19	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93	@2 95	3 01	@3 17	1 06½	
20	1 60 @1 75	....	1 80 @1 90	†2½	1 85 @1 90	....	2 93	@2 97	3 01	@3 17	1 10	
21	1 60 @1 75	....	1 80 @1 87½	†1¼	1 85 @1 90	....	2 89	@ —	3 03	@3 15	1 05¼	
22	1 60 @1 75	....	1 80 @1 87½	....	1 85 @1 90	....	2 89	@2 91	3 03	@3 15	1 06¼	
24	1 60 @1 80	†½	1 80 @1 85	†¼	1 85 @1 90	....	2 89	@2 91	3 03	@3 15	1 07½	
25	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85	@2 87	3 03	@3 15	1 04½	
26	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85	@2 87	3 03	@3 15	1 04½	
27	1 60 @1 75	†½	1 70 @1 80	†½	1 80 @—	†½	2 83	@2 85	3 03	@3 15	1 09	
28	1 60 @1 75	....	1 70 @1 80	....	1 80 @—	.	2 81	@2 87	3 03	@3 15	1 09	
Mar. 1	1 60 @1 75	....	1 70 @ 80	....	1 80 @—	..	2 81	@2 87	3 03	@3 15	1 09	
3	1 60 @1 75	....	1 70 @1 80	....	1 80 @—	....	2 81	@2 87	3 03	@3 15	1 09	
4	1 60 @1 75	....	1 70 @1 80	....	1 80 @—	....	2 81	@2 87	3 03	@3 15	1 09	
5	1 60 @1 75	....	1 70 @1 80	....	1 80 @—	....	2 82	@2 91	3 03	@3 15	1 11½	
Extreme advance.		....		....		....						
Extreme decline..		15		....		17½						11½

S. F. MARKET REPORT.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, March 5th, 1873.

The small amount of sales effected this week in the Produce Market, warns us that we are rapidly approaching the end of the season. The want of tone noticed last week still continues, and the Wheat and Flour market have dropped down suddenly, notwithstanding that there has been a good demand for the latter for export. Only in Barley has any firmness been noticeable, and that entirely through speculative operations. The bulk of the Wheat available for export has now come forward, and there cannot be more than a couple of million centals yet to come. All this will have been exhausted by at least the end of April. The principal matters of interest for the next four or five months will be the price of freights, bags and Wool. The former reached a higher figure last year than they can ever again attain. We will have three months at least during which there will be no demand for wheat ships before the next wheat harvest comes in, during all of which time, the certainty of there being a great demand for tonnage, will attract here a very large number of vessels, so that the prospect is of the next Wheat season opening with more tonnage on hand than is needed, and it would not at all surprise us, if next year, we should have a surplus. Bags will command a high price this year, and there is little prospect of any very great improvement in Wools, the season for which opens in about another month.

RECEIPTS.—Receipts this week have improved somewhat on last. Those of Flour, consequent on an increased export demand, have increased more than fifty per cent. Those of Wheat from the interior have increased somewhat, but those from Coast ports have fallen off. The quantity of Barley received has been almost double those of last week. Those of Oats have fallen off, while receipts of Potatoes, both from the interior and coast ports, show a slight improvement. We have received small consignments of Buckwheat, Rye, Peanuts and Cotton this week. Only 2 bales of Hops have come forward. Bran has fallen off; there has been a small increase in the receipts of Middlings. Hides have fallen off, and so has Hay. The receipts of Wine have been large—double those of the previous week.

We summarise receipts of Bay produce to date, as 21,820 quarter sacks of Flour; 184,619 centals of Wheat; 5,045 do of Barley; 190 do of Oats; 166 do of Buckwheat; 25 do of Rye; 400 do of Corn; 307 do of Beans; 938 do of Bran; 377 do of Middlings; 2,797 do of Potatoes; 604 do of Onions; 709 Hides; 66 bales of Wool; 695 tons of Hay; 26 do of Straw; 16,470 gallons of Wine; 170 do of Brandy; 131 barrels of Beet Sugar; 201 do of Peanuts; 13 bales of Cotton, and 2 bales of Hops.

Receipts of Wheat at Oakland Wharf to date aggregate 60,600 centals, or 303 car loads.

Receipts of Domestic Produce from Coast ports, save in the matter of Potatoes, have fallen short of those of last week. We summarise, 1,938 centals of Wheat; 1,450 do of Barley; 750 do of Oats; 174 do of Rye; 11,156 do of Potatoes; 792 Hides; 411 centals of Beans; 561 do of Corn; 8 puncheons, 6 casks, 2 cases and 138 pipes of Wine; 8 bales of Wool and 11 pipes of Brandy.

BARLEY.—The market has gone up about five cents in consequence of a purchase of 14,000 bags of Bay Brew and 6,000 of Chevalier by a single operator, and it is now very firm at the advanced rates. Besides this sale we notice those of 2,000 sacks of Feed at $1.19½, 1,100 do at $1.20, 8,260 do at $1.22½, 2,000 do at $1.25, 400 do at $1.27½ and 920 do Brewing at private rates.

FLOUR.—Notwithstanding the large demand for export during the last ten days, the market in sympathy with the Wheat market has fallen, and best brands cannot now be quoted above $5.87½. Exports aggregate 1,344 barrels, 4,445 half sacks and 38,583 quarter sacks, principally to China.

HAY.—Receipts this week have been pretty large but of medium quality only, very little first class Hay being now in the market. We note sales of a cargo of Wheat at $21, 35 tons of inferior at $14, 15 tons of fair Wild Oat at $17.50, 15 tons of choice at $22, a cargo of Wild Oat mixed with clover at $16, a cargo of fair Wild Oat at $18, and one of Wild Oat mixed with Hay at $18

HOPS.—We have to make the same report as before, market dull, and sales not worth quoting.

OATS.—The Oat market is weak, and receipts are very small. We note sales of 300 bags of Dark Coast at $1.90; 400 do Common, $2.02½; 400 do Feed at $2.10; 400 do Oregon at $2.12½; 200 do Oregon at $2.20, and 800 do Feed in lots at $2.10, $2.20 and $2.25.

POTATOES.—Receipts for the week from all sources aggregate close on 14,800 bags, the market is consequently weak. We quote sales of 150 sacks of Petaluma at 90 cents; 1,500 do of Humboldt at $1.05 to 1.12½; 200 do Sweet at 75 cents to $1.00; 800 do of Inferior Petaluma at 62½ cents; 200 do of Pigeon Point at $1.25; 200 do of Common Tomales at 65 cents; 200 do of Monterey at $1.25, and 80 do of Bodega at 90 cents to $1.12½.

WHEAT.—Wheat, though to-day again advanced in England, has again during the week fallen both in the Liverpool market and in this. The cause of the former we have at some length previously adverted to. The cause of the fall here is of course dependent on the same cause, and also in the fact that in another month or two the Wheat season for the present harvest year will be pretty nearly over. Receipts this week have been pretty large, amounting to 247,187 centals from all sources. Exports have been only about one-half as large in quantity as those of last week. California Wheat in Liverpool is now about the same price that it was last week, having advanced and now being $2.8? to $2.91, according to the telegrams to the Associated Press and the Merchants' Exchange. We note sales of 600 bags of common Coast, at $1.50; 500 do fair, at $1.70; 3,400 do fair to good Shipping, at $1.75; 4,800 do choice Shipping, at $1.77½, and 8,000 do at $1.80.

Exports have included per "Ada Iredale," to Queenstown, 34,910 centals; per "Dartmouth," to Queenstown, 24,538 do; per "Bonito," to Falmouth, 15,799 do; per "Sea Witch," to Liverpool, 40,710 do; per "Margaret Arckard," to Tahiti, 201 do and per "Carieca," to Queenstown, 24,624, making a total of 5 cargoes and shipment of 1140,782 centals worth $277,584.

WOOL.—There have been no sales during the week, there is no change save a weakening tendency to be noted, and but little can be said about the market till the arrival of new Spring Clip.

GENERAL MERCHANDISE.

The character of the week just closed has been much like the last, but little business being done. Our import and export trade have both been pretty brisk, though the latter has fallen off. There has arrived during the week among other vessels the "Libra," from Passverocan, Java, with a cargo of 4,089 baskets of Sugar, 3,219 bags of Coffee, 356 bags of Rice and 4 cases of Java Tea; the "Max," from Hamburg, with 200 tons of Pig Iron, Whiskey, Linen and a general cargo; the "Times," from Liverpool, with Iron and Chemicals; the "Louisa Simpson," from Mazatlan, with 487 bags of Copper Ore; the "Nigara," from Newcastle, New South Wales, with 1,950 tons of Coal; the "Moses Taylor," from Australia, with a small cargo; the "Cameo," from Liverpool, with 1,200 tons of Coal, and the "Theodore Ducos," with Wine, Oils, Tobacco and Bricks, from Bordeaux. Exports have included besides railroad exports and the shipments of Wheat and Flour noted elsewhere, the "Mohongo," to New York, via Panama, with 452 gallons of Brandy, 5,457 gallons and 1 case of Wine, 768 Hides, 704 cs. of Borax, 168 packages of Leather and 16,193 lbs. of Wool to N. York; the "Empress," to London, with 214 tons of Copper Ore; the "Rau Runnels," to Valparais, 394,000 ft. of Lumber and a miscellaneous cargo; the steamship "Japan," to China and Japan, with Domestic Produce, the "Malay," with Flour, etc., to Hong Kong, the "California," with a cargo of Sugar, Rice and Coffee, to Mexico the "Percy Edward," to Punt Arenas, with Flour; the "Margaret Crickard," to Tahiti, with Lumber, etc., and the "Moses Taylor," with a general cargo, to Honolulu, Australia and New Zealand. These exports were carried in 13 ships and were worth $667,113.

There will be little doing in Wheat Bags for a couple of months. Canned Goods are becoming more lively. There is no change in Coal. There is now no Coffee in first hands, a thing hitherto unprecedented. Costa Rica jobs at 22 cents. There is some Gautemala of the new crop expected by the next steamer. There is a great demand for the trade of St. Louis and the West generally. Five Hundred bags of Manilla, and 2,000 bags of Costa Rica cleared out for St. Louis the other day. Fish is generally quiet. There is, however, a brisk movement in Eastern and Pacific Cod, and on account of the demand for Lent, both have advanced. In Oils the only change to note is an advance of 5 cents in Boiled Oil. There will be no movement in Paints for a couple of months. There is a cargo of Rice about to be sent to Callao. There is no change in Tobacco. The Lumber market is very quiet. Pig Iron is $60 and still advancing. Lard has advanced ½ cent from first hands.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality, M	30 00
Rustic, ₱ M	35 00	Laths, ₱ M	4 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	24 00	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half inch, Surfaced, M	25 00	Do do refuse, ₱ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half inch Battens, M	22 50	Rustic, ₱ M	42 50
Pickets, rough, ₱ M	14 00	Battens, ₱ lineal foot	¾
Pickets, rough, p'nted	16 00	Shingles ₱ M	3 00
Pickets, fancy, p'nted	22 50		
Shingles, ₱ M	3 00		

FRUIT MARKET.

There have come in during the week two or three lots of Dried Blackberries from New York, which are selling from 15 cents to 20 cents per pound. The market is bare of fruit generally, and prices look upwards. Limes and Dried Peaches are scarce. There are but few Bananas in the market.

FRUIT MARKET.				Pears, ₱ lb	6	@	7
Mex, Or. per 1000	—@	—		Peaches, ₱ lb	11	@	12
Cal. do	25 —@	45 —		Apricots, ₱ lb	—	@	—
Limes, ₱ M	40 — @	45 —		Plums, ₱ lb	5	@	10
Cal. Lemons, 1000	40 —@	50 —		Pitted, do ₱ lb	15	@	20
Messina do, box	15 —@	—		Raisins, ₱ lb	8	@	12
Bananas, ₱ bnch	2 —@	4 —		Black Figs, ₱ lb	8	@	10
Pineapples, ₱ dz	— @	—		White, do	15	@	20
Apples, cal'g, box	1 75 @	3 00					
" Cooking	1 75 @	3 00		**VEGETABLES.**			
Pears, Eating	2 00 @	3 00		Cabbage, ₱ dz	50	@	65
" Cooking	1 75 @	—		Garlic, ₱ lb	6	@	8
Pomegran's, ₱ 100	— @	—		Green Peas	12½	@	—
Grapes, Mission	— @	—		Green Corn ₱ doz	—	@	—
Rose of Peru	— @	—		Marrowfat Squash per ton	7 50	@	8 00
Blk Hamburg	— @	—		Artichokes, ₱ lb	2	@	3
Black Prince	— @	—		Tomatoes, L. A.	12½	@	15
Muscat of Al'x	— @	—		String Beans, ₱ lb	—	@	—
Flame Tokay	— @	—		Lima Beans	8	@	8
Black Morocco	— @	—		Peppers dry	25	@	—
Wine Grapes	— @	—		Okra	35	@	40
DRIED FRUIT.							
Apples, ₱ lb	6 @	8					

DOMESTIC PRODUCE.

Wednesday M., March 5, 1873.

BEANS.				HOPS.			
Beans, sm'l white	3¾	@	—	California, 1871, lb	—	@	—
do, butter	4¾	@	—	do 1872	50	@	—
do, large, do	5	@	—	Eastern, 1872, lb	62½	@	—
do, bayo	3¾	@	—	**MISCELLANEOUS.**			
do, pink	4¼	@	—	Beeswax, per lb	30	@	45
do, pea	4	@	—	Honey, choice	20	@	—
BROOM CORN.				Los Ang. Honey	30	@	—
Per ton	$40	@	120	Onions	3¼	@	3½
DAIRY PRODUCE.				Flaxseed	3	@	5
Butter, Cal. fresh	—	@	—	Canary do	4½	@	6
do, ordin'y roll	—	@	35	Mustard do, white	1½	@	1¾
do, choice	37½	@	—	do, brown	2	@	2½
do, new firkin	34	@	—	Peas, Chili	25	@	—
do, packed	—	@	—	Alfalfa	35	@	—
do, New York	—	@	—	Ky. Blue Grass	50	@	—
Cheese, Cal. new	16	@	—	Timothy		@	—
do, Eastern	15	@	16	Italian Rye		@	—
Eggs, Cal. fresh	—	@	35	Pirennial do	55	@	—
do, Oregon	27	@	—	**NUTS.**			
do, Eastern	—	@	—	Peanuts per lb	5	@	6
FEED.				Pecan nuts	10	@	—
Bran per ton	19 00	@	20 —	Hickory do	10	@	—
Middlings	25 00	@	30 —	Brazil do	16	@	—
Hay	16 00	@	23 —	Prince Almonds	—	@	—
Straw	10 80	@	—	Cocanuts, ₱ 100	00 00	@	—
Oil cake meal	35 00	@	—	Almonds hard shell	—	@	15
Corn Meal	$30 00	@	40 —	do, soft	23	@	25
FLOUR.				**POTATOES.**			
Alviso Mills, bbl	4 25	@	5 87½	Sweet, per lb	87½	@	—
California	4 25	@	5 87½	Humboldt	1 12½	@	—
City Mills	4 50	@	5 87½	Monterey	1	@	—
Comme'l Mills	4 50	@	5 87½	Tomales	90	@	1 00
Golden Gate	4 50	@	5 87½	**POULTRY & GAME.**			
Golden Age	4 50	@	5 87½	Live Turkeys lb	18	@	21
National Mills	4 50	@	5 87½	Hens, per dz	9 00	@	10 60
SantaClaraMills	4 50	@	5 87½	Roosters	9 00	@	10 00
Genesee Mills	4 50	@	5 87½	Chickens	7 00	@	8 00
Oregon	4 50	@	5 87½	Ducks, tame, doz	—	@	15 —
Vallejo Star	4 50	@	5 87½	do, Mallard	4 00	@	—
Venus, Oakland	4 50	@	5 87½	Geese, per pair	3 —	@	3 50
Stockton City	4 50	@	5 87½	Quail, per doz	1 75	@	2 00
Lombard. Sac	4 50	@	5 87½	Hare, per doz	2 50	@	3 00
FRESH MEAT.				Rabbits, each	50	@	75
Beef, fr quality	9	@	—	Larks, each	50	@	1 00
do, second do	—	@	8	Doves, per doz	—	@	1 25
do, third do	6	@	6½	Plover, per doz	—	@	50
Veal	—	@	9½	Curlew, per doz	50	@	1 00
Mutton	8	@	—	Teal, per doz	1 00	@	1 50
Pork, undressed	—	@	6¼	Snipe, Eng., doz	2 —	@	3 00
do, dressed	8¾	@	—	Venison, per lb	—	@	—
GRAIN, ETC.				**PROVISIONS.**			
Wheat Cal. coast	1 60	@	1 75	Cal. Bacon, per lb	12	@	13
do, shipping	1 70	@	1 80	Eastern do	11½	@	11½
do, milling	—	@	1 85	do sugared	12	@	15
do, Oregon	1 75	@	1 85	Cal. Hams	13	@	15
Barley, Dark C'st	17½	@	1 20	Eastern do	14½	@	15
do, Light	1 20	@	1 25	Cal. Smoked Beef	11	@	12½
do, Brewing	1 25	@	1 30	**WOOL, ETC.**			
Oats, Coast	1 90	@	—	Choice Nor'n, fall	20	@	21
do, Light	2 12½	@	—	do spring	23	@	30
Corn, White	1 25	@	—	Seedy	15	@	18
do, Yellow	1 25	@	—	Burry	12	@	14
Buckwheat	1 50	@	—	Oregon	—	@	—
Rye	2 00	@	—	Hides, dry	19	@	20
				do green	9	@	9½
				Tallow	7 50	@	8 —

GENERAL MERCHANDISE.

BAGS.				Whitening	—	@	—
Eng. stand. Wh't	15¼	@	—	Chalk	—	@	2
Flour Sacks ½s	16½	@	—	Paris White	—	@	21½
" " ¼s	8½	@	9¼	Ochre	—	@	2½
Stand. Gunnies	17	@	17½	Venetian Red	—	@	2¾
" Wool Sacks	—	@	70	Red Lead	—	@	10
" Barley do	16	@	—	Litharge	—	@	10
Hessian 40-in. gds	—	@	12	**RICE.**			
do 60	17	@	17½	China No. 1, ₱ lb	6½	@	7
CANNED GOODS.				do 2, do	5¾	@	6½
Ass't'd Pie Fruits in 2½ lb cans	3 00	@	—	Japan	6	@	7
do Table do	4 00	@	—	Patna	7	@	—
Jams & Jellies	4 —	@	4 25	Hawaiian	8½	@	9
Pickles ½ gl	3 25	@	3 75	**SALT.**			
COAL—Jobbing.				Cal. Bay, per ton	8 00	@	10 —
Australian	14 00	@	—	Carmen Island	16 00	@	30 —
Coose & Bel. Bay	12 00	@	—	Liverpool fine	26	@	—
Seattle	12 00	@	—	do coarse	25 00	@	—
Cumberl'd, cks	25 00	@	—	**SOAP.**			
do bulk	22 50	@	—	Castile, ₱ lb	12	@	—
Chile	—	@	—	Local brands	5½	@	7
Lehigh	18 20	@	—	**SPICES.**			
Liverpool	12 50	@	—	Allspice, per lb	17	@	18
West Hartley	16 00	@	—	Cloves	30	@	—
Scotch	16 00	@	—	Cassia	30	@	—
Scranton	14 00	@	—	Nutmegs	1	@	—
Vancouver's Isl.	12 50	@	—	Whole Pepper	22	@	—
Charcoal, ₱ sk	4 00	@	—	Ground Allspice	22½	@	—
COFFEE.				do Cassia	40	@	45
Costa Rica per lb	18½	@	—	do Cloves	30	@	—
Guatemala	18½	@	—	do Mustard	25	@	—
Java	22	@	—	do Ginger	21½	@	—
Manilla	17½	@	—	do Pepper	22½	@	—
Ground in cs	23	@	—	do Mace	1 30	@	—
Chicory	8	@	10	do Coffee	25	@	—
FISH.				**SUGAR, ETC.**			
Pac. Dry Cod, new bundles, ₱ lb	8½	@	—	Cal. Cube per lb	12¾	@	—
Eastern Cod	9½	@	10	Circle A crushed	12¾	@	—
Salmon in bbls	8 00	@	—	do granulated	11¾	@	—
do ½ bbls	5 00	@	—	Golden C	10	@	—
do 2½ lb cans	—	@	—	do Extra	15	@	—
do 2lb cans	—	@	—	Hawaiian	20	@	22½
do 1lb cans	—	@	—	Cal. Syrup in bbls	42½	@	—
Pick. Cod, bbls	—	@	—	do in ½ bls	45	@	—
do ½ bbls	4 50	@	—	do in kegs	50	@	—
Pug. Sd. Smok'd	—	@	—	**TEA.**			
Herr'g, hfs ₱ lb	—	@	50	Oolong, Canton	19	@	25
Mack'l, No. 1, ½bls	—	@	11 50	do Amoy	28	@	50
" Extra	—	@	12 00	do Formosa	40	@	80
" in kits	2 25	@	3 00	Imperial, Canton	25	@	35
" mess	—	@	3 50	do Pingsuey	45	@	80
" ex. mess	—	@	5 00	do Moyune	60	@	1 00
NAILS.				Gunpo'der, Cant.	30	@	42½
Assorted sizes	5½	@	8 —	do Pingsuey	50	@	90
OILS.				do Moyune	65	@	1 25
Pacific Glue Co.				Yng Hy., Canton	28	@	40
Neat F't No. 1	25 00	@	—	do Pingsuey	40	@	70
Pure	1 20	@	—	do Moyune	65	@	85
Cocoa Nut	60	@	—	Japan, ½ chests, bulk	30	@	75
Olive Plagniol	5 00	@	—	Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
do Possel	4 75	@	—	Japan do, 3 lb bxs	45	@	90
Palm	9	@	—	do pl'n bx, 4½ lb	35	@	65
do Bagicalupi	—	@	—	do ¼ & 1 lb paper	30	@	55
Linseed	1 05	@	1 10	**TOBACCO—Jobbing.**			
China nut in cs	75	@	—	Bright Navys	52½	@	60
Sperm, crude	1 25	@	—	Dark do	50	@	55
do bleached	1 90	@	—	Dwarf Twist	60	@	65
Coast Whales	55	@	—	12 inch do	60	@	67½
Polar, refined	60	@	—	Light Pressed	65	@	75
Lard	95	@	—	Hard do	60	@	70
Coal, refined Pet	40	@	42	Coun. Wrap't	48	@	50
Olephine	40	@	—	Penn. Wrapper	35	@	45
Devoe's Bril't	44	@	46	Ohio do	30	@	40
Long Island	42	@	—	Virgi'a Smok'g	60	@	95
Eureka	42½	@	—	Fine cut chew'g, gr.	8 50	@	9 25
Downer Kerose'e	55	@	—	Fine cut chewing, hue'ts	75	@	90
Gas Light Oil	42	@	—	Banner fine cut	9 25	@	—
PAINTS.				Eurska Cala	8 50	@	—
Stand. Wh. Lead	—	@	10				

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, March 5, 1873.

The price of sole leather continues the same. French stocks have advanced 5 per cent., and importers are firm in their prices.

City Tannsd Leather, ₱ lb			26@29
Santa Cruz Leather, ₱ lb			28@29
Country Leather, ₱ lb			25@28
Stockton Leather, ₱ lb			26@29
Jodot, 8 Kil., per doz			$60 00@
Jodot, 11 to 19 Kil., per doz			66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			55 00@ 70 00
Lemoine, 16 to 18 Kil., ₱ doz			75 00@ 77 50
Levin, 12 and 13 Kil., per doz			68 00@ 70 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Females, 12 to 13			60 00@ 64 00
Cornellian Females, 14 to 16 Kil			66 00@ 72 00
Ogeran Calf, ₱ doz			54 00@
Simon, 18 Kil., ₱ doz			60 00@ 62 00
Simon, 20 Kil. ₱ doz			65 00@ 67 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Calf, 7 and 8 Kil			35 00@ 40 00
French Kips, ₱ lb			1 00@ 1 30
California Kip, ₱ doz			55 00 to 70 00
French Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13 00
Sheep Roans for Linings, ₱ doz			5 50@ 10 50
California Russett Sheep Linings			1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair			5 25
Good French Calf Boot Legs, ₱ pair			4 50@ 5 00
French Calf Boot Legs, ₱ pair			4 00
Harness Leather, ₱ lb			30@ 37½
Fair Bridle Leather, ₱ doz			48 00@ 72 00
Skirting Leather, ₱ lb			34@ 37½
Welt Leather, ₱ doz			30 00@ 50 00
Buff Leather, ₱ foot			15@ 23
Wax Side Leather, ₱ foot			20@
Eastern Wax Leather			26

San Francisco Metal Market.

IRON.—			
Scotch Pig Iron, ₱ ton	$60 00	@	— —
White Pig, ₱ ton	60 00	@	— —
Refined Bar, bad assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	—
Nail Rod	10½	@	—
Norway Iron	9	@	—
Rolled Iron	10½	@	—
Other Irons for Blacksmiths, Miners, etc.	5½	@	6½
COPPER.—			
Braziers	— 35	@	— 38
Copper Tin'd	— 50	@	— —
O. Nail's Pat	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 29	@	— —
Sheathing, Old Yellow	— —	@	— 15
Composition Nails	— 29	@	— 30
Composition Bolts	— 29	@	— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50	@	14 —
Roofing Plates	13 00	@	13 50
Banca Tin, Slabs, ₱ lb	— 40	@	— 42½
STEEL.—English Cast, ₱ lb	— 20	@	— 25
Drill	20	@	— —
Flat Bar	22	@	— —
Plough Points	16	@	— 17
Russia (for mould boards)	17	@	18
ZINC	9¼	@	10
Zinc, Sheet	— 9	@	— 10
NAILS—Assorted sizes	— 5½	@	— 9

San Francisco Retail Market Rates.

WEDNESDAY NOON, March 5, 1873.

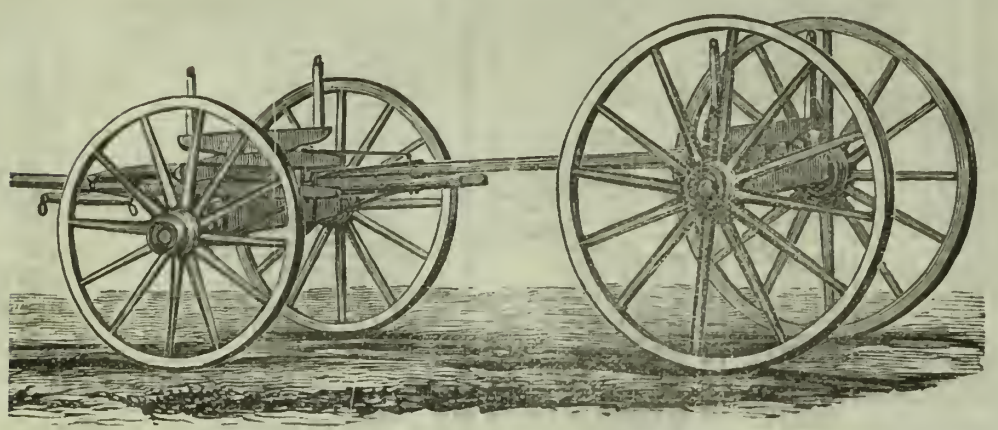
FRUITS, VEGETABLES, ETC.

Appies are getting very scarce; so are Pears. The supply of both are limited and there are very few good kinds in the market.

Jackson, Michigan, Farm and Team Wagons

HAVE BEEN PROVED FOR FIFTEEN YEARS IN CALIFORNIA AS

THE BEST WAGONS TO STAND THIS HOT AND DRY CLIMATE.



The Wheels have Tire Rivets—Felloes run through Hot Boiled Oil—No Shrinkage Possible.

EXTRA BEARING IRONS AND BRACES, WITH OTHER IMPROVEMENTS.

We Have also to Arrive:

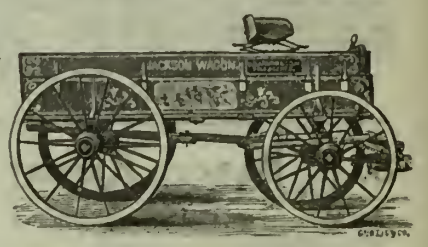
EXTRA WHEELS, to make a HEADER Wagon of a FARM Wagon.

Also, HEADER Wagons complete.

ALSO,

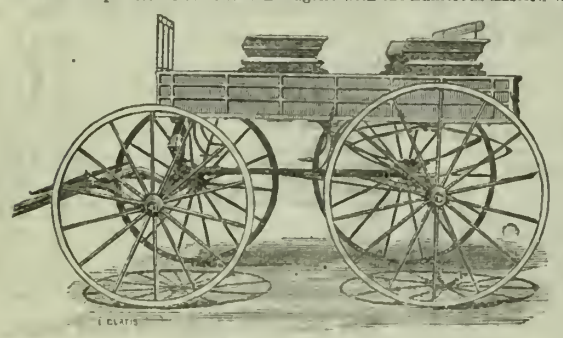
LIGHT AND HEAVY

One-Horse Carts.



Also, a Light Express one or two-seat Wagon—called the **OHIO TRADE WAGON**—suitable for one or two horses, for a Pleasure Wagon or other light use. We invite a close inspection of this Wagon in the state in which it comes from the Manufactory (UNPAINTED), showing it to be the BEST made Wagon of the kind ever Imported. We guarantee all our Wagons for Two Years. Anything proving imperfect in that time will be made good

THE TIMBER FOR ALL OUR WAGONS IS THE BEST SELECTED Second Growth Timber, seasoned for years under cover, but open to the air. The Thimble Skeins are cast endwise, making them more solid. Patent Plate for eliding perch. Patent Bed Plate for bolster, making the Wagons the best and most complete in the market. We keep a large assortment on hand of all sizes, both IRON and SHELL Axle, and invite a close examination and comparison of our Jackson Wagons with the numerous Eastern Wagons in this market.



TRADE WAGON.

We Hold Certificates

From those who have used

—THE—

Jackson Michigan Wagons

For the past Fifteen Years.

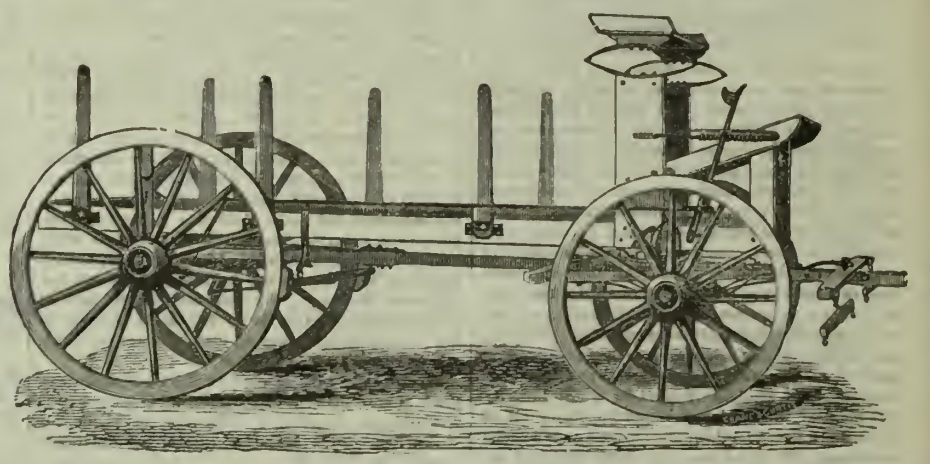
ALL UNITE IN TESTIFYING

That they are the

Best Wagons

To stand this dry climate of any that have been

USED IN CALIFORNIA.



All Sizes, from One-Horse to Six-Horse Wagons, are in Stock, Wholesale or Retail, cor. California and Davis sts., San Francisco.

J. D. ARTHUR & SON.

BEST SHADE IN THE WORLD!

The Rustic Window Shade.

This New and Elegant article of manufacture

Is Fast Superceding all other Styles of Window Shades in Use

Wherever it has been introduced and its merits tested.

It is made of Wood, is Light, Strong and Extremely Durable.

It Lowers from the Top or Raises from the Bottom,

And forms a complete and the only substitute for Inside Blinds.

When soiled it can be cleaned with water without the slightest injury.

Its fixtures are simple, work to perfection, and never get out of order.

Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

THE PIONEER FACTORY

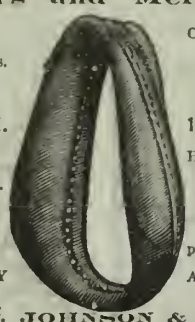
No. 413 Mission Street, (Mechanics' Mill,) by

HOLLIHAN & BEARDSLEE.

☞ For sale by all Furniture and Carpet Dealers.

6v5-3m

Farmers and Merchants.



Examine our HORSE COLLARS. Adopted by **BEST IN USE.** ALL GRADES. No complaints. No repairing. Don't believe FOR SALE BY

COPPER RIVETED Pat. Nov., 1861. U. S. Army. **18,000 SOLD.** HEAVY & LIGHT. No ripping. Examine for yourselves. prejud'd parties. ALL DEALERS

Manufactured only by

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104 FRONT STREET. SAN FRANCISCO.

Dealers in Harness, SADDLERY, Leather, etc. Liberal discount to the Trade. 19v4-3m

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LIVERY, FEED AND SALE STABLES,

Roseville, California.

SPECIAL ATTENTION TO TRANSIENT STOCK.

f918-1m

Lewis & Pander, Dealers in Stoves,

Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.



HOW WHEN & WHERE TO GET THE BEST HELP, GO TO THE CAL. LABOR & EMPLOYMENT EXCHANGE

637 CLAY STREET AND 630 COMMERCIAL STREET

SAN FRANCISCO.

MECHANICS, LABORERS, MINERS, FARMERS, SERVANT GIRLS - AND ALL OTHER KIND OF LABOR

SENT TO CITY & COUNTRY.

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H. K. CUMMINGS. 1858. J. M. MAXWELL. 1871.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco

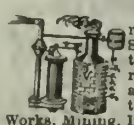
Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

WILCOX'S

IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R.R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

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☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,

Spangled Gold and Silver Hamburghs,

Spangled Gold and Silver Polish,

Houdans, Buff Cochins, Silks, Black Spanish and Games.

M. FALLON,

Importer and Breeder of Choice Poultry,

Seventh and Oak streets, Oakland.

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EGGS FOR HATCHING.

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

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C. W. WILSON,

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Imported Fowl of All Choice Breeds,

ALSO EGGS FOR HATCHING,



From all the different varieties; packed carefully to send any distance.

ALBERT E. BURBANK,

Stalls, 43 and 44, California Market,

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THE PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

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PURE BRED IMPORTED FOWLS.

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White Bald Face Black Spanish, $2 per dozen; Light Brahma, $3 per dozen; Dark Brahma, $4 per dozen; Buff Cochin, $5 per dozen; Silver Spangled Hamburg, $6 per dozen; carefully packed and shipped free of extra charge. All kinds of fowls bought, sold or exchanged.

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FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,

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BUSINESS COLLEGE.

A Day and Boarding School for both sexes; the only Institute on the Pacific Coast where a thorough Academic and business education can be obtained.

The Business College Department

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The Twenty-Second Session commenced January 20th, 1873.

For circulars address

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21v2-1y



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Parties wanting to sell would do well to send us a description of their property.

☞ WE MAKE NO CHARGE unless we EFFECT SALES.

We have 500 Farms and over 600,000 Acres of Land for Sale.

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Nursery Notices.

Los Angeles Nursery and Fruit Garden,

LOS ANGELES.....CAL.

O. W. CHILDS, Proprietor.

Desires to call attention to his large and desirable assortment of

Orange, Lemon, Lime and Citron Trees,

POMEGRANATE AND OLIVE TREES,

Including a limited quantity of ORANGE, Grafted and Budded on Lemon Stock.

HAS ALSO ON HAND,

50,000 Choice English Walnut Trees,

From 2 to 10 feet high. Price, $10 per hundred. And a very superior lot of

Italian and Spanish Chestnut Trees,

1 to 6 feet high, at very low rates.

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Kelsey's Nurseries,

OAKLAND,

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[ESTABLISHED IN 1852.]

Containin the Largest and Best Assorted Stock of

Trees and Plants

On the Pacific Coast.

Embracing—FRUIT TREES AND PLANTS of all and every kind, SHADE AND FOREST TREES, EVERGREEN AND ORNAMENTAL TREES AND PLANTS, FLOWERING SHRUBS, HOT HOUSE AND BEDDING PLANTS, BULBS, Etc. Etc.

Send for Catalogues and Price Lists—Free on Application. Iv5-3m

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine assortment of

Ornamental Shrubs?

Then call at the

BELLE VIEW NURSERY,

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Mulberry Trees for Sale

— BY —

I. N HOAG, Sacramento.

THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

For the Yard, for the Sidewalk, or the Roadside.

— ALSO —

Fruiting Mulberry,

Of all varieties, and for Silk Culture.

ALSO, FRUIT, SHADE AND ORNAMENTAL TREES,

Of every kind—grown in the best Nurseries in the State—for sale at the Lowest Prices.

Also, OSAGE ORANGE HEDGE PLANTS.

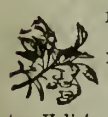
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A Large and Well Selected Stock of New and Rare Plants for the

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FLOWERING AND ORNAMENTAL FOLIAGE PLANTS AND SHRUBS,

Evergreen Trees, Geraniums, Pelargoniums, Roses, Fuschias, Pinks, Gladiolas, Lilies, Coleus, Pansies, Primroses, in great variety. Also, Tuberroses, Verbenas, Cactus, Heliotropes, etc.

Orders from the country carefully attended to.

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Twenty Years in the Nursery Business in California.

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THREE MILES NORTH OF OAKLAND,

Near Temascal Creek.

Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental belts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, fit for forest culture; Oak Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A beautiful assortment of Roses and Lilacs; also Asparagus Roots.

All orders will receive prompt attention. Address

A. D. PRYAL,
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Fruit, Shade and Ornamental

EVERGREEN TREES AND

Plants for Sale,

At the old stand, corner Oregon and Battery streets, Directly opposite Post Office, SAN FRANCISCO.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants

Ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with care.

Send for Price Catalogue.

AGENT FOR B. S. FOX'S NURSERIES, SAN JOSE.

Address, **THOMAS MEHERIN,**
516 Battery Street,
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P. O. Box f22-1m

King's Nursery,

ELM Street, between Telegraph Avenue and Broadway,

OAKLAND,

GREEN HOUSE PLANTS,
EVERGREEN TREES,
SHRUBS, ROSES, ETC.

100,000 MONTEREY CYPRESS.



A superior stock of large sized Australian Gum trees, including: — EUCALYPTUS GLOBOLUS (Blue Gum)—extra fine street and shade tree. EUCALYPTUS VIMENALIS—both sorts very popular. ACACIAS in variety. Monterey Pines, Lawson's Cypress, etc, etc. Orders attended to. Address

3v5-2m **M. KING, Nurseryman, Oakland.**

500,000

Fruit, Shade and Ornamental Trees, Plants, Etc.

FOR SALE AT THE

CAPITAL NURSERIES, SACRAMENTO.



Having a very large Nursery Stock, I can furnish Trees and Plants of all kinds cheap. Fruits guaranteed true to name. Send stamp for printed Price List, Catalogue, and instructions for hedge-growing. A large stock of Osags Orange Hedge Plants for sale. Letters of enquiry promptly responded to. Office and MAIN Tree Depot, U street, between Fifteenth and Sixteenth, Sacramento. Branch Yards, Sayles & Williamson, J street, Sacramento; Burney & Williamson, Modesto; and W. T. Wright, Agent at Colusa.

ROBERT WILLIAMSON,
25v4-3m Proprietor.

Bay Nursery,

[ESTABLISHED 1852.] OAKLAND, CAL.

Office and Depot.....Broadway and Thirteenth. Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Coast. Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarius, Weeping Cedars, Golden Arbor Vitæs, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rare merit. Tube Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

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LIBERTY NURSERIES,

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I offer at moderate prices a general assortment of

FRUIT, SHADE AND EVERGREEN TREES, AND SHRUBS.

Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

Send for Descriptive Catalogue and Price List.

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THE OLD

Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL and FRUIT AND EVERGREEN and DECIDUOUS SHRUBS; also a large assortment of Choice ROSES too numerous to mention. Green House Plants, Flowering and Bulbs, Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
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100.000 AUSTRALIAN GUM TREES,

Including all varieties—OUT-DOOR grown, healthy and strong. In good condition for transplanting and transportation. For sale at $5 to $10 per 100. Grown at Fitchburg, between Alameda and San Leandro.

Address, HENRY S. FITCH,
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RAMIE PLANTS AND CUTTINGS

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IN QUANTITIES, at the LOWEST MARKET RATES.

Inquire of **J. P. SWEENEY & CO.,**

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1000 EASTERN CHESTNUT AND BLACK WALNU

FOR SALE AT

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RAMIE, RAMIE.

THE LARGEST STOCK IN THE STATE AT

H. ALLEN'S NURSERY,

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Being Agent for the Pacific Ramie Co., and having the largest stock in the State, is enabled to offer extra inducements to purchasers Orders left at Collie & Stewart's, 18 Post street or addressed direct to H. Allen, corner McAllister and Buchanan streets, will be promptly attended to. fc22-3m

PLANTS! PLANTS!

60,000 Evergreen and Flowering Shrubs

AT GREATLY REDUCED RATES.

Those intending to embellish their grounds will find it to their advantage to examine my stock and ascertain prices.

DAVID NEELEY,

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1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

Send us your address and get our Descriptive Catalogues and Price Lists. Address

HARGIS & SOMMER,
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BRIER'S LONGUEDOC ALMOND TREES,

At Reduced Rates.

$20 per 100. Thrifty trees, 1 year old, from the bud. Dormont Bud Trees, $10 per 100. Send orders to

W. W. BRIER,
1m Alvarado, Alameda Co., Cal.

Superior Fruit Trees, Shrubs, Flowers, Etc.

The undersigned has continually on hand a large assortment of finest FRUIT, SHADE AND ORNAMENTAL TREES, FLOWERS, SHRUBS, POT PLANTS, etc., of the most varied and choice description, which he sells at lowest rates. Trees and Plants securely packed to travel any distance. **T. CORLEY,**
2v5-3m No. 315 Washington st., San Francisco.

Wonderful and Valuable Seeds.

The Great Persian Watermelon grows to a large size, "has a fine flesh and delicious flavor," and KEEPS FRESH AND SWEET THROUGHOUT THE WINTER. Seed, per pack, post paid, 25 cts.; 6 pkts., $1. Mammoth Cabbage, weighs 20 to 60 lbs., 20c. a pkt. Mammoth Squash, weighs 100 to 200 lbs., 20 cts. Snake Cucumber, 3 feet long and coiled, 15c. Yard Long Bean, 15c. Husk Tomato, (keeps fresh for a year) 20c. Japan Radish, delicious pods for eating, a ft. long, 15c. All for $1, post paid. Catalogues free.

mr1-1m G. H. WILLIAMSON, Gallatin, Tenn.

50,000

Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

Address **JAS. T. STRATTON,**
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20,000 MONTEREY CYPRESS TREES,
5,000 BLUE GUM,
3,000 ROSES (Choice Varieties),

And a general assortment of Nursery Stock.

E. GILL, Twenty eighth street,
2v5-3m Near San Pablo Road, OAKLAND.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETTS, for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, DRAKE & EMERSON, No. 521 Sansome street, San Francisco, ROBT. WILLIAMSON, Capital Nurseries, Sacramento, or to me, CALVERT T. BIRD,
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Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim, 12v3tf

Our Seedsmen.

SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds.

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED.

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Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.

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TREES AND TREE SEEDLINGS, FRUIT, TIMBER AND ORNAMENTAL, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will be mailed free for one year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

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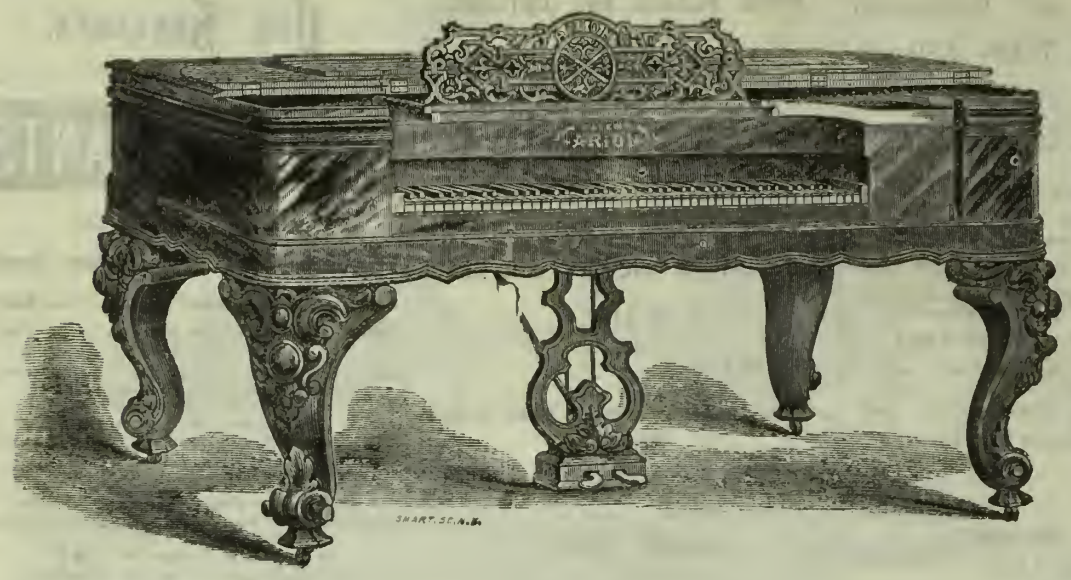
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Whilst there are many Pianos that are manufactured which possess some of these "points," and excel in them, there are none which poseeee them all combined, as our instruments do; and we feel confident of success, as we dispose of no instrument but what will be a

PERMANENT GUARANTEE OF QUALITY AND SUPERIORITY,

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A Written Guarantee for Five Years.

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Buyers' Directory.

Under this head will be found the names and address of some of our most enterprising and reliable business men.

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G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission 501 Sansome st., N. W. corner Clay.

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T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. 519 Sansome street, S. F. All orders promptly attended to.

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Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 724 Market st., S. F.

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Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Common Furniture, Bedding and Upholstery Goods, No. 725 Market street (Bancroft's Building), San Francisco.

Jacob Schreiber, Dealer in Live Geese Feathers. Furniture Springs. Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

A. Greenebaum & Co. (Successors to Herman Heuck), Manufacturers, Importers and Dealers in Havana and Domestic Cigars, Tobaccos, Snuffs, Pipes, Matches, etc. 233 Kearny st. cor. Give them a call.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns cut and Teacher of her system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 34 Third St. JOHN D. GODEUS, Proprietor.

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Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. List and Rag Carpets for sale. Send for Circular. Address, ALEX. MACKAY.

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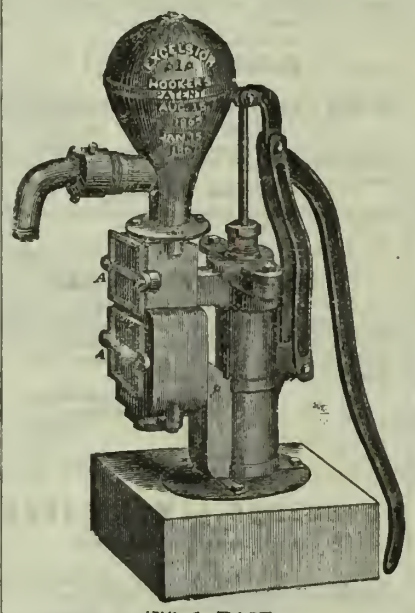


Will cut wet grass as well as dry. It is impossible for it to clog, as its gears are perfectly covered after the most improved American method. Draught light; runs entirely on wheels; very simple in its adjustment. It is a Self Sharpener; all parts of the machine made to interchange. The gears are all enclosed, and it is quickly thrown in or out of gear. THE VICTOR is the only perfect Lawn Mower in the country; it is also a perfect Garden Roller. Price, $25. Sold only by

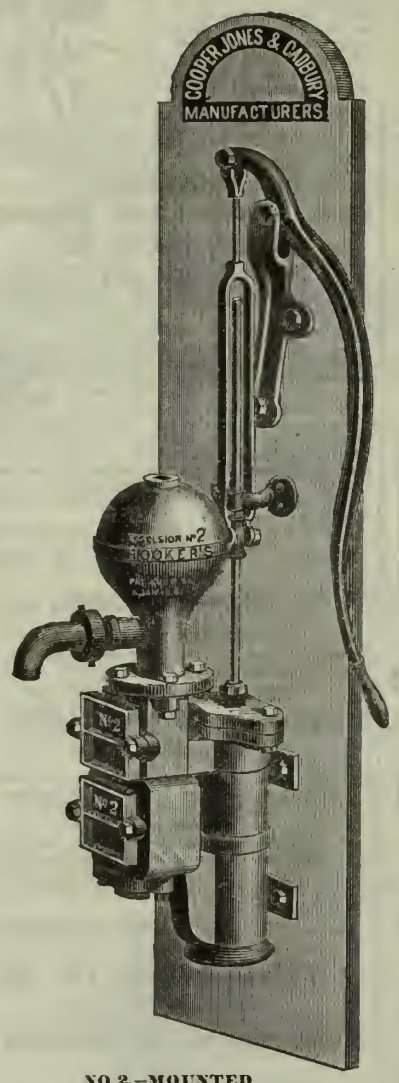
10v5-1m TREADWELL & CO., San Francisco.

THE "EXCELSIOR" FARMERS' PUMP.

After Six Years use proving itself the Best Pump on this coast, and consequently the CHEAPEST.



NO. 1—BASE.



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We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

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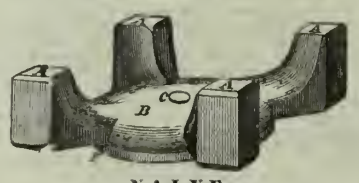
Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

Every Pump Warranted,

With no expense, if defective to the purchaser.



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BRITTAN, HOLBROOK & CO.,

111 and 113 California street, San Francisco (and also Sacramento), General Agents.

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ALFALFA, ALFALFA!

10 TONS CHOICE ALFALFA. ALSO FRESH LOT BLUE GRASS, RED TOP, RYE GRASS, RED CLOVER, TIMOTHY, ORCHARD AND MESQUIT GRASS, TC

All of fine quality, and for sale, in lots to suit, market rates.

E. E. MOORE,

Seedsman and Florist,

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"Heikes Triumphs over the Seasons."

He offers from his extensive cellars a general assortment of Trees, Plants, Vines and Seedlings, in large quantities and in fine condition. Goods will be carefully packed, and can be shipped at any time. Address W. F. HEIKES, Dayton, Ohio. 1t

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FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Noo-Setters and Fine Layers; SILVER POLANDS, Non-Settere and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.

Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to THOS. E. FINLEY, Manager,

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OFFICE—No. 113 Leidesdorff street, S. F. 5v5

LATE ROSE POTATOES.

A package containing four pounds of these Potatoes will be forwarded to any part of the United States, by mail, postage paid, on receipt of one dollar. They were raised from tubers imported from reliable parties in the East, and prove a fine Potato for California.

Address O. H. DWINELLE,

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FRESH GARDEN SEEDS.

ALSO,

Grass and Clover Seeds

ALFALFA.

Trees, Plants, Roots, Etc.,

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GEO. F. SILVESTER,

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GUANO.

100 Barrels Guano for Sale,

In quantities to suit purchasers.

6v2-1y-16p GEO. F. SILVESTER.

Improve Your Poultry!

It Costs No More to Keep Good Fowls than Poor Ones!



OAKLAND POULTRY YARDS,

Corner Sixteenth and Castro Streets, Oakland, Cal.

SEASON OF 1873.

Eggs for Hatching from the largest and best bred fowls in the world, carefully packed in Patent Boxes, and guaranteed to carry safely any distance.

The varieties comprise Dark and Light Brahmas, Buff, Black, White and Partridge Cochins, White Leghorns, Houdans, Silver and Golden Spangled Hamburgs, Gold and Silver Spangled Polish, Black Spanish, Crevecœurs, Roue and Aylesbury Ducks, Bronze Turkeys, and Sebright and Game Bantams.

Send stamp for Illustrated Circular to GEO. B. BAYLEY, Importer and Breeder of Choice Poultry, P. O. Box 659, San Francisco; also agents for the POULTRY WORLD, a monthly illustrated journal, devoted entirely to Poultry; tells how to keep Fowls for PROFIT; a complete repository of information on the subject. Subscription only $1.25 a year. Agents wanted in every town in the state. Address P. O. Box 659, San Francisco.

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OFFICE AND FACTORY, SOUTH POINT MILLS,

Berry Street, between Third and Fourth,

SAN FRANCISCO.

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DEVON STOCK FOR SALE.



A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character.

From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,

jan25-3m16p Three Miles from Menlo Park.

SEND this paper to your friends abroad.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MARCH 15, 1873. [Number 11.

How Deep to Plant.

Our offer of garden seeds to subscribers at half the regular prices, has—perhaps not strangely—awakened quite a lively interest in gardening and many who have never before attempted the culture of their own garden vegetables, are determined to make the trial, and with their letters comes the inquiry in some instances, of how deep to plant and how to cultivate certain vegetables. For the convenience of the uninitiated we say, first, that a new garden plat to be certain of yielding fair returns the first year, requires a good deal of labor in its preparation.

The soil, if it can be selected, should be as near what farmers call a warm, sandy loam as can be. Such a soil is more easily worked than one in which clay or adobe predominates, and what is of great consequence is, that it can be worked at all times and in seasons wet or dry. Let it be abundantly enriched with fine stable manure, avoiding all long straw or coarse litter of any kind. For a new plat, it should be completely incorporated with the soil by repeated plowings and the soil made loose and friable to a depth of at least a foot.

The season having arrived for planting, if it is intended simply for vegetables, with no particular regard for ornamental effect, begin upon one side of the plat, and either dig with the spade or finely turn with the plow as many furrows as will suffice for immediate use; rake smooth and plant the following seeds at the depth indicated, having regard always to the actual condition of moisture at the time of planting:

Early or Green Corn, in hills or drills; if in hills, three feet apart each way; if in drills, three feet apart and one foot apart in the drill; cover two inches deep.

Peas, in drills 18 inches apart; two inches apart in the drill, cover two inches, the seed may be soaked in water for five or six hours before planting.

Beets, in rows 15 inches apart and 6 inches in the row; cover from 1½ to 2 inches, pressing down the soil upon the seed with the back of the hoe or roll the ground with a light roller, after seeding.

Cabbage, for plants, sow thickly; covering half an inch deep, and transplant when large enough. Distance apart depending upon variety.

Cauliflower, same as cabbage.

Carrots, same as beets, but only 4 inches apart in the row, and cover but ½ an inch, pressing down the earth upon the seed.

Celery, sow early in spring in a seed bed half an inch deep, any time after night frosts are gone, or on a slight hot bed, if wished early; thin out the plants when up to an inch apart, or transplant into a second bed three inches apart. When strong plants, dig trenches four feet apart and fifteen inches wide; dig each trench a moderate spade deep; put three inches of well-roted dung all over the bottom of each trench, then pare the sides, and dig the dung and parings with an inch or two of the loose mould at the bottom, incorporating all well together, and put in the plants in two rows six inches apart, and eight inches apart in row. Give a good watering after planting, earth up as the plants make growth, and keep the earth between the trenches loose and open with the spade.

Cucumber.—Plant the seed in open ground as soon as the weather becomes settled and warm, in hills four feet apart; use a shovelful of manure to each hill, which cover with an inch or two of earth; scatter eight or ten seeds to a hill, cover half an inch deep with fine earth and spat it down. Hoe often, and when out of danger from insects, thin the plants to four in a hill.

Lettuce.—A rich soil is necessary for good lettuce. Its crisp and tender quality depends on a vigorous growth. Sow ½ inch deep, and cover with hoe, or sow upon the surface and rake it in, if the soil is quite dry on the surface water with a rose watering-pot. Sow thin and transplant in rows eight inches apart; keep the ground moist and free from weeds.

Musk Melon.—Plant in hills six feet apart each way, six seeds in each, and thin out to two or three plants when in a state of forwardness. It is a good plan to make a hole for each hill two feet wide, in which dig some rotten stable manure. Dust a little soot or wood ashes, recently burnt, on the growing plants when up. Draw earth up round the stems, and stop their points to make them branch when they begin to run; lay them out evenly to cover the ground, which keep clear from weeds at all times. A light but rich soil suits them best.

Watermelon.—Cultivate same as Musk Melon, except that the hills should be eight feet apart each way.

Parsnip.—Plant and cultivate the same as carrots.

Radish.—Sow in fall in drills an inch deep and a foot apart, as early as the ground can be worked, and every two weeks thereafter while the season permits, and thin to three inches apart. A warm, sandy loam, made rich and light by some good, strong manure, suits them best.

Spinach.—Rich soil, if light, tread it down before sowing. Sow a quarter of an inch deep and a foot between the rows.

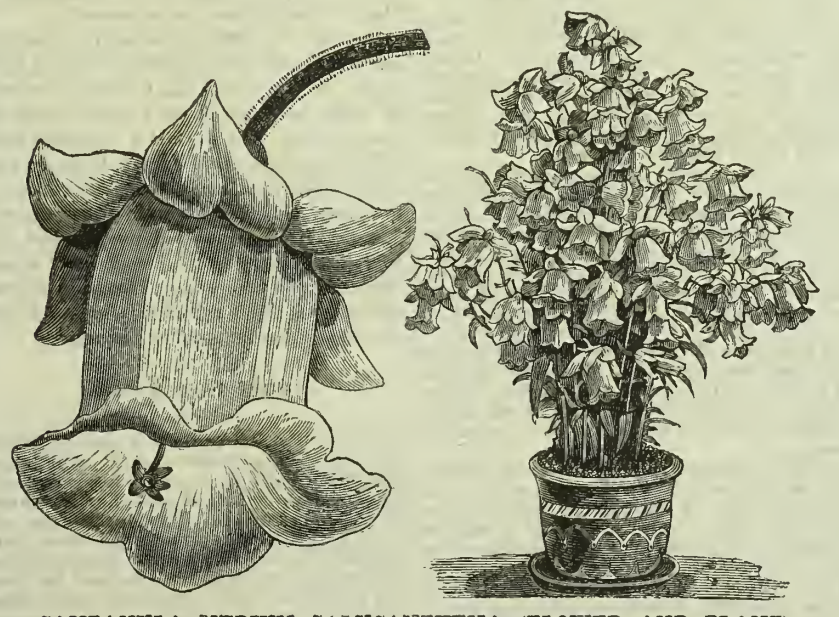
Tomato.—Sow in hot-bed, one-half inch deep, from January to March, and transplant into the open ground when weather becomes warm and settled; or sow in open ground, and transplant when plants are six inches high. They succeed best near a fence or trellis to climb on, but they do very well if planted four feet distant from each other without support.

Turnip, sow anytime when the soil is moist enough. Turnips are generally sown broadcast, and lightly harrowed in and rolled; but much larger crops are obtained by cultivating them in drills twelve inches apart, and thin to six inches in drill; hoe them a month after sowing to keep down the weeds.

Onions.—Rich soil, lightly rolled. Sow moderately thick in drills one inch deep and twelve inches apart. Thin to three inches apart. Keep down weeds, but avoid covering the bulbs. Onion Sets and Tops are placed on the surface, in shallow twelve inch drills, about four inches apart, but slightly covered.

Beans.—Dwarf or Bush Beans require no support, and may be planted in hills or drills. The latter is preferred. Make the drills fifteen inches apart, cover an inch and a half deep, and drop the beans three inches apart. They are tender and will not stand the frost. Running beans should be planted in hills, three feet apart, in a warm soil, and poles placed for the vines to cling to. Plant the Lima with the eye down and cover slightly.

Flower Seeds.—It is quite unnecessary to particularize in regard to the depth at which flower seeds should be planted. As a general rule, they should be sown or planted no deeper than just to secure sufficient moisture to cause them to germinate; in fact, this is a very good standing rule applicable to all seeds, field, garden or flower. More seeds are rotted in the ground or fail to grow from being covered too deeply, than from all other causes; and the fault is too often laid upon the seedsman who sells the seed. As a general rule, half an inch deep is as near right as you can get for most flower seeds.



CAMPANULA MEDIUM CALYCANTHEMA—(FLOWER AND PLANT).

Postage on Seeds. — We stated in a recent issue that seeds could be sent by mail in twelve-ounce packages for 12 cents. W. R. Strong, the Sacramento seedsman, writes us that the law is still more favorable—four-pound packages being sent for 8 cents per pound. He further says that he sends all but coarse, low-priced seeds to customers in the country at catalogue prices, postage paid. At this rate there is little cost in getting fresh seeds for a whole garden. *Visalia Delta.*

The above is erroneous. Seeds can be sent in packages of less than 12 ounces—marked, seeds—for one cent for two ounces or fraction of ounce. Packages of merchandise of less than 12 ounces for one cent per ounce or fraction of ounce, if marked—merchandise.

Rhubarb.— This pie-plant of magnificent proportions is plentiful and cheap, 6 to 12 cents a pound.

Spring-time and Flowers.

California of all others, is the laud of sunshine and flowers. But the flowers that adorn her hills, her valleys and her plains, are the native wild flowers, simple, single-petaled beauties, their great abundance making them the striking feature of a California landscape that they are. But with all these and their almost infinite variety we are not satisfied; we want the gorgeous flowers of other climes and of all lands; we want the voluptuous double flowers that skill and culture have given to the world, and above all we want every novelty; nothing short of the possession of these will satisfy either the taste or pride of our floral loving amateurs.

We had heard of certain novelties, marvels of beauty that were to enrich the floral world for the first time the present spring. On application to Briggs & Bro., the celebrated seedsmen of Rochester, N. Y., we are politely furnished with an illustration of one of their special novelties for 1873, the Campanula Medium Calycanthema.

Their description of this new claimant for popular favor is this, perennial; a variety of Canterbury Bell. The flower cup is about the size of the old Canterbury Bell; the flower sets into a colored calyx having the appearance of a portion of the flower. In this variety the calyx spreads out, while in the old variety the calyx is green and stands closely up against the flower. The calyx may be said to be petaloid or leaf-like, though colored like a flower.

To the flower culturist who would be in possession of the beautiful and striking and one of the latest novelties, we would present this new Canterbury Bell.

Seedling Peaches.

We are asked what to do with peach stones—imported from the East last fall with a view of raising new varieties—that have not been acted upon sufficiently by the frosts of winter to open the stones. We say, with a light hammer slightly crack them, holding them on edge, then plant and the swelling of the kernel from the moisture admitted will do the rest.

But why bring peach stones from the East? We should avoid as much as possible, all such introductions; there is great danger that with them we introduce the worst diseases known to orchardists. The yellows is a disease that destroys vast numbers of peach trees annually throughout the Atlantic States and is carried with certainty, and as certainly propagated as is the new tree; so that great care should be had that none but healthy seed be propagated from.

We have already the best varieties of peaches in California, known to the world, and our stock is at present sound and healthy to propogate from, with every probability of producing as valued new varieties from the seed, as any that can be imported, and therefore ought to be preferred to any new importation of doubtful stock. We would therefore advise our correspondent to throw his "peck of peach stones" into the fire.

Cotton in California.—The commercial editor of the New Orleans *Picayune* comments upon the results attending the cultivation of cotton in California, and predicts that the future "cotton belt" will include the region traversed by the Texas and Pacific Railway, and a large portion of this State. The climate of California, he says, is certainly well adapted for cotton culture. This plant flourishes best in dry weather. The rainy season of the Pacific Coast lasts long enough to bring the young plant to a healthy condition,

CORRESPONDENCE.

Notes of Travel in Monterey and Santa Clara Counties.

[By our Traveling Correspondent.]

Salinas City.

This town, which has lately advauced to the dignity of Connty Seat of Monterey county, and located at the present terminus of the S. P. R. R., at this writing, is one of the most fearfully muddy places in the State, and in addi tion to this unfavorable feature it is one of the dullest of towns, likely to be found on the entire Coast. It contains a population of twelve hundred. The hotel business is about the only profitable one at present, and that needs abont two degrees of improvement to be rightly denominated first-class. Among those of the most successful mechanics of this placc is Mr. J. B. Iverson, mannfacturer of all kinds of agricultural implements, who also follows the blacksmithing business in its fullest sense. Twelve men are constantly employed at this establishment.

Six months ago, this was one of the liveliest agricultural towns in the southern portion of the State. Being highly flattered by the removal of the county seat from Monterey to this locality, and thereby believing that the nnmber of the inhabitants wonld be doubled, its business men enlarged their stores and doubled their stocks. Their anticipations not being realized, they find themselves with plenty of goods and very short of coin.

Gas Wells.

Your readers are doubtless fully informed of the fact that in this vicinity while boring for artesian water, in three or four instances a strong flow of gas followed that of the water. This was indeed a very singular phenomenon, but far more strange that which followed, for since the legal ability from Monterey have concentrated here, the gaseous manifestations of these wells have almost entirely ceased affording a novel opportunity for scientific investigation.

The surronndings of Salinas city, that which is known as the Salinas Valley, never gave greater promises for abundant crops than for the present season. One of the most peculiar of the diseases to which cattle are subject is that of

Cattle Blindness.

I did not obtain any particular information in regard to the symptoms or nature of this disease, nor as to the mode of treatment as practiced by the dairymen, but have been informed that at several of the prominent dairies in this section large numbers of cattle at times have become totally blind, the disease seemingly entirely local, no other trouble or weakness whatever being exhibited.

Fine Vineyards.

At a distance of eight miles south of San José, Mr. Chas. Lenfrane has brought to maturity one of the finest of the many fine vineyards in that locality and of the State. Some of the vines are 21 years old, but the greater portion of this immense forest of vines have been set out and planted by the proprietor during the last fifteen years. He is the possessor of 400 acres of very fine land, favorably situated and on the north bank of the Rio Seco de los Capitancillos, one hundred and twenty acres of which is occupied as a vineyard, numbering one hnndred and thirty-five thonsand vines, fifteen thousand of which are of the California grape, the balance consisting of every known variety growing in this country. Mr. Lefranc is a large importer of foreign wines, an invoice of which is due at this writing. He assiduously applies himself to effect all improvements possible for the wine-growing interests of the Coast, and in so doing has not only beautified his land with the beauty of a thrifty vineyard but a fine house with decorative surronndings gives an appearance of permanenee and completeness. Near the house are oranges growing, ripe and of as fine a size as if growing in Los Angeles. He has two wine cellars, built of concrete and covered with frame houses for storage. Within are stored the portion retained of the products of the last seven years, thirty thousand gallons being now on hand, about twelve thousand thereof being of the last year's crop, which was a light one. Ten men are constantly employed, and with this help all the work is accomplished, even including manufactnring all the casks, varyiug in capacity from four to five thonsand gallons. It is the most complete vineyard I have visited in the State.

Fine Dairy Farm.

T. Andrews three miles east of San José has five hundred acres of first-class land. He has under cultivation two hundred and fifty acres, a little barley but mostly wheat. The land averages twenty centals to the acre and has produced three times that.

He has a dairy, now milking sixty cows, the number in the summer being one hundred; sends to market one hnndred and twenty gallons of milk daily and makes bntter from the balance. He has a fine barn and stable.

L. P MC.

Southern California.

EDS. PRESS:—The vineyard of Mr. George Lord, San Bernardino county, is sitnated about four miles from the center of the town, and is on sandy land, nearly or quite on a level with Lyette creek, which runs through it. Mr. Lord's grounds are not extensive—less than two hundred acres—and less than forty acres in vines; but this man has the intelligence to perceive that vine growing for raisins is, at no distant day, to take a front rank among the indnstrial occupations. The raisins put up by Mr. Lord, already noticed in the RURAL, compare favorably with any from the Mediterranean, and the results, accordiug to careful computation by this horticnltnrist, are so far in advance of vine growing for any other purpose, as to throw former returns from vineyards entirely in the shade. Mr. Lord calcnlates with confidence upon a return of one dollar per vine after the fifth year, or one thousand dollars per acre, thus making a vineyard of forty acres produce an income of ten thousand dollars per annum.

We do not know that this can be realized, but we do know that at present prices the three year old vines yield in the above proportion in this locality.

To show what the RURAL is doing for progressive agriculture this incident is mentioned. An old resident of this valley, but a new subscriber to the RURAL, and, by the way, an appreciative one; met us on our way, and said that he should not have awakened to the knowledge that there was any better kind of grapes grown, especially in his own neighborhood, if he had not seen the fact noted in the columns of the RURAL PRESS, and he was on his way home with fresh cuttings of Muscat of Alexandra, procured of Mr. Lord.

In and about San Bernardino valley are nine mills of different kinds, five saw mills, each of capacity of ten to twenty thonsand feet of lumber per day, according to whether they run day and night or only by day; three flour and grist mills and one planing and tnrning mill; the former, steam power, the flour and grist mills by water power.

The Santa Anua affords water power to run as many looms as are operated in Lawrence and Lowell, and probably, at no distant day, will be turned to account in some similar way.

The conformation of the mountain range nearly encircling this valley is such as to make the winds coming throngh Cahoon? (Cajon) Pass unpleasant at times. The Pass opens npon the great treeless plains that lie south and east of the Tejon monntains, and is the funnel through which the arid winds of that partially desert region find vent occasionally.

We took advantage of one of these favored breezes to set sail for the South, anchoring our craft for the night at the plucky little colony of Riverside, where in spite of the unfavorable inuendoes of interested speculators in other localities, they are thriving; taking root and branching out. The water ditch is ample for all present needs, carrying twenty-two inches depth in a six-foot flnme. The nurseries of P. S. Russell look green and pleasant with the thousands of young orange trees and other nsnal varieties of horticultural stock. The soil in this vicinity is good, well adapted to the growing of the cereals and most of the fruits of the temperate zone.

With the still favoring gale from the northeast we scud away on the morning of the 14th across the plain of San Jacinto, and although there had fallen during the night a copious shower, leaving small lakelets everywhere, the clouds of sand that went with us southward would have entirely prevented travel in any other direction, sometimes obscuring everything farther away than the horse's head!

This drive of fifty miles to Temecula is over one of nature's best highways, and is most favorably situated for railway purposes.

Speaking of railways reminds us that Temecula is a natural railroad centre, and will undoubtedly be crossed by any lines entering Southern California.

Twenty-five miles south of Temecula is some Government land, mostly occupied by new comers—some from the east but some native Californians; one of these, formerly Major Domo for Don Albert Stearns, has located upon a quarter section, and built a comfortable adobe house, naming the ranch "last chance." It is a very good sclection nevertheless. This "last chance" in San Diego County is a fair sample of hundreds of places in Southern California, where, if people do not expect too much and can content themselves with a delightful climate, and a moderate supply of what may be called superfluous luxuries, one may pass life in that calm and gentle flow most to be desired.

Repeatedly in conversing with these old Californians, the expressions will crop out of the reliability of this southern part of the State for feed, and up to 1859, for thirty years no such thing as scarcity of stock feed was known in Southern California.

That this part of the State produces forage to sustain as many animals per acre as some localities is not claimed; but that with the given amonnt of moisture it is claimed that there is no country on the earth that produces as much.

F. M. SHAW.

San Diego County, Feb. 17, 1873.

About the Rose.

EDS. PRESS:—Being much interested in the cnltivation of roses, and somewhat extensively for a ranchman, I desire to learn through the columns of the PRESS, regarding the history of the rose, how the different species of roses are produced and also the number of the varieties at present cultivated. By giving the above information you will confer a favor and oblige a reader of the PRESS. W. S. D.

Half Moon Bay, Feb. 24th, 1873.

The history of the rose, in a few words, is simply this: It is a native—in some of its varieties—of all warm countries, and in such primitive condition is generally but a single rose; bnt judicious crossings and high cnltnre hsve given us double roses of great beauty and vsriety.

New varieties of roses are only produced from seeds. Where different varieties are grown in close proximity and bloom at the same time, the seeds of the roses so produced, will often bring new varieties; a very few may possibly be superior to the originals, the rest perhaps equal or decidedly inferior.

The time was when the varieties of roses were quite limited, but the zeal and enterprise of rose culturists have developed an astonishing nnmber of new kinds, remarkable for properties not possessed by the old sorts. Chief among these is the habit of continual bloom. Roses can now be selected remarkable for richness of color, fragrance and a perpetual bloom, so that a garden need never be destitute of this richest of flowers dnring the growing season.

We do not remember the number of varieties now cultivated, but one gardener published a "select list, embracing only the most beautiful," of one thousand two hundred and fifty-three kinds. Among this vast number there are a few that stand pre-eminent, and as it is as easy to cultivate a plant of the choicest kind, as one of the most common, we advise our friends to purchase only the very best, where their garden room is limited. Who would cultivate a rose which blooms only once a year, when it is just as easy to have one that will bloom from February to Christmas?

But there are different tastes to be consulted, and fortunately the rose affords varieties suited to all. If you want a plant to run over trellis to shade your house or pathway from the scorching sun, and to yield a fragrance which will perfume the whole garden, there are roses which will cover a moderate sized cottage in two years, and afford a continued succession of flowers. If you want a rich swelling bud, covered with a mossy calyx, there is the Perpetnal Moss. If you wish a large, blooming, fragrant rose, there is the Bourbon class, and so of other classes each has its peculiar properties.

Letter from Kansas.

EDITORS PRESS:—Is there a place in California where all the following fruit and nut trees thrive and bear well, to wit: apple, pear, peach, plum, cherry, quince, almond, English walnut, olive, fig and grapes. I read the PRESS with great pleasure, and have derived much information from it with regard to the soil, climate and productions of different parts of the State; but I have not yet been able to satisfy myself whether all the above-mentioned fruits succeed *well* anywhere in the same locality. I have the Report of the Surveyor General of California for 1870 and 1871, with statistical tables giving productions of each county for those years; bnt knowing that soil and climate, and consequently the adaptability to different fruits varies much in the same county, I do not feel satisfied in regard to the point of my inquiry. I am thinking of California as a place for a home, and having some means and a great fondness for, as well as considerable experience in, the culture and care of fruit and forest trees, I desire to know, as near as I can, where the greatest variety of them will succeed well. If you will answer the above fully, either by letter or in the PRESS, you will confer a great favor.

Spring Hill, Kansas, Feb. 24, 1873. H. P.

In the above we give one of the nnmerous letters of inquiry of which we are constantly in the receipt; but in this instance, instead of answering it by letter, we give place to it in our colnmns, because it gives such a complete opportunity for our fruit-growers, if they will, to define just what their own particular locality is capable of producing.

Now, if there is a place in all California or many of them, that will completely "fill the bill," as desired by our correspondent, we wonld like to know where they are, and we shall await with much interest the information desired.

Tehama County.

EDS. PRESS:—Having been a subscriber for some time, and read your paper with much interest, I was snrprised to see nearly all the counties of California represented except Tehama. I thought it would interest you to hear something abont us. I will give yon a description of what we grow on our gronnds, which consists of two and a half acres. We raise oranges, lemons, pomegranates, and all kinds of palms, the date, fan cabbage, and dragona stricta, in the open ground.

The banana grew two feet in circumference in four months, which stood the severe frost and hail that we had yesterday, and with a little shelter next winter, if they do well this summer, there is no donbt they will bear. The magnolia also does well in the open gronnd. Our orchard consists of the choicest kinds of fruits, including the best varieties of grapes.

There is no doubt, for we have sufficient evidence, that with irrigation in the summer months, Tehama county can produce as well as any part of the Sacramento Valley.

MRS. L. H. D. L.

Red Bluff, March 1, 1873.

San Diego.

A correspondent of the San Diego *World*, F. M. S., gives an interesting view of facts connected with the condition of Southern California as an enduring pasture gronnd when other sections of the State suffer from dronth and consequent scarcity of feed.

In a zigzag course, of over 5,000 miles in length, the writer has passed over Southern California, within the last eight months, meeting in his travels many pleasant people, and gleaning scraps of history from native and old inhabitants, which should make us of the sunny sonth more than ever satisfied with the land of our adoption.

Up to the year 1859 there had been no serions dronth in this part of California for 30 years; and it was common to meet wandering graziers who naturally drifted towards the golden placers of the world, to find more profitable sale of their stocks, returning southward with their decimated herds when the feed failed in the San Joaquin and Sacramento Valleys. One old Arab in particular we bear in mind that swore he was going back to San Diego, where feed never was scarce. Thns it will be seen that the general impression, up to 1859, was that the southern portions of the State were the most reliable grazing grounds.

It is our firm conviction that they are so yet, notwithstanding the last three years' experience At all events, we intend to plant right on in Southern California, and always in the dust, or before any rains fall. This year will show the trnth of our position in this respect. The grain, in every part of the country, that was pnt in dry, will undoubtedly yield a bountiful return; while those who have waited nntil now to plow and sow may lose their labor."

How to Ripen Wines.

The worst way is to pnt them in a cellar, where they are shnt out from the great universal ripener of all things, viz., sun and air. Pastenr's wines, ripened by artificial heat, are taking the lead in Europe.

The wines of Greece and Hungary partake of the character of California wines. They are fruity in taste. This is against them in England, becanse the wines they drink are either wholly or in greater part doctored. That is they are not made from grapes and they of course do not taste fruity. It is a prevailing notion, therefore, that grape wine is known by not tasting of the grape; and our grape-juicy flavor gives the idea of overdoctoring. Robert Druitt's late work on wines exposes the tricks of wine men. I scarcely believe any wine is to be got in England or in France that is not robbed of its healthful properties by adnlteration. He quotes eminent medical anthorities in support of the curative effects of pure and ripened wine, particularly in chronic derangements of the digestive organs. Bnt it must be above gronnd. Another writer gives sensible instructions for bottling wines. When the cork is being put in, a small metal rod with a slight groove turned toward the glass, is inserted. Through this groove the air extracts itself in a moment, and the rod is withdrawn, leaving no sign. Then, give your bottles a snnny room, and your wine will be perfect.

In California we adhere to the old fogy idea, now everywhere else exploded, that a cellar ripens wine instead of preventing its ripening, as common sense ought to suggest to the reasoning mind.

NORTH PACIFIC COAST RAILROAD.—About six hundred men are now at work on the North Pacific Coast Railroad, between San Rafael and Tomales, and are pushing the work ahead with great rapidity. The work on the tunnel at White's Hill is progressing finely.

AN APPROPRIATION of $408,000 for the construction of a new Custom Honse in this city, has been made by Congress.

THE WOOLEN FACTORY at Oregon City, which was recently burnt, is being rebuilt.

The Dairy.

How Often Should Cows be Milked?

The following from the *Irish Farmers' Gazette* is worthy of consideration:

Regularity in the milking of cows is of as much importance as regularity in feeding them. In a state of nature, the cow is relieved of its milk a great many times each day. A calf allowed to remain with its mother will help itself seven or eight times a day. Under such circumstances the udder of the cow will remain small, and if allowed to retain the milk secreted during twelve hours, feverish symptoms are likely to be produced; but the practice of milking cows twice in the twenty-four hours causes the capacity of the udder to be greatly increased and probably helps in maintaining the lacteal secretion long after pregnancy has taken place.

When, however, by au artificial system the cow has been enabled to retain her milk without inconvenience for twelve hours or so, she ought to be milked regularly every day at the same hour. When the time for milking arrives, the udder usually becomes distended to its utmost capacity, and if it be not speedily removed, the animal suffers considerable pain. Cases of fever, the result of allowing animals to remain too long unmilked, are, indeed, by no means, of unfrequent occurrence. It is especially necessary to attend to this point for some days after the animal has brought forth its young, for during that period very little irritation of the lacteal organs is likely to bring on that most fatal of maladies, fever. If milking be too long delayed, nature will try to help the poor animal. An absorption of milk into the blood will to some extent take place, and that which remains in the udder will become deteriorated. When neglect to milk a cow at the regular time is repeated several times, the secretion of the fluid is permanently checked; and there are many cases where by each neglect an animal has become dry in less thau a month.

The Cost of Poor Stock. — Probably few farmers think, says the *Americaa Agriculturist*, of what it costs to keep a poor cow or a land-pike hog. They readily understand that a good cow, or a hog that will dress 200 pounds at ten months old, is profitable stock to keep; but the fact that this gain is really the amount of loss on the poor stock is really not considered. If a cow yields 200 pounds of butter in a year which brings $60, and another yields $75 pounds, which brings $12.50, the loss on the poor cow is $37.50. The fact is, it would be a more profitable operation to give her away than to keep her, for she does not pay for her feed. The dairy business of this country is not on a satisfactory footing, by any means, and solely on account of the multitude of poor cows which are kept year after year. This matter should be looked after by the county agricultural societies. Every one of these associations should introduce improved stock, by means of thoroughbred male animals into their localities. It is a good work to elevate the idea of farmers, and to foster a taste of improvements; but to the great majority of their clients the possession of such stock, or the use of it, is quite unattainable on account of the want of the necessary means. By making this a special branch of their operations, the usefulness of these societies would be much iucreased, and their importance greatly enhanced.

Training a Heifer. — Cows usually become addicted to kicking when heifers, from being milked by abusive milkers. I have never seen an old cow become a kicker unless abused. Instead of cows being averse to being milked when giving a large quantity, I have ever found it the reverse. When pasturage is good, the cows come home at night with udders distended with milk; our "down east" cows seem grateful to have it removed. Milking a heifer for the first time requires patience, for they will almost invariably kick. In such a case put a broad strap around her body, just front of the udder, and buckle it up moderately tight, and as soon as she gets quiet (for she may dance round a little at first), take your pail, set down and go to milking, for she is as helpless as a kitten. Do not attempt to use a rope instead of a strap, for it will not answer. This is a much better method than tying the legs, etc., as it does not hurt the animal in the least. A few applications of the strap, with plenty of *patience* and *kindness*, will cure the most obstinate case.—*Rural Home.*

Singular.—One of our stock dealers, says the Petaluma *Argus*, recently bought a cow of J. M. Bowles, and took her to San Francisco for sale. About a week after the sale the purchaser took from her fore leg a piece of India rubber hose about one foot long, which was found imbedded under the hide. The animal is in perfect health, but the question naturally arises, how did she get that pipe under her hide? George Gazulies, the purchaser, is at present endeavoring to solve the perplexing question. To our mind the cow is an infringement on the Goodyear patent, something not unfrequent with beef cattle.

Hyacinths in Sponge.—A correspondent of the *Country Gentleman* says he succeeded finely in growing hyacinths by placing the bulbs in slits cut in coarse sponge, placing the sponge in a vase nearly filled with water. The growth was very rapid and the vase when the hyacinths were in bloom was an object of much interest and beauty.

Comparative Daily Value of Different Kinds of Milk.—A recent English writer gives the following table, in which the milks of domesticated animals are arranged in the order of their richness in butter, etc:—

Fat Butter.	Cheese.	Sugar.	Whey.
The Sheep	Goat	Ass	Ass
The Cow	Sheep	Mare	Mare
The Goat	Cow	Cow	Cow
The Ass	Ass	Goat	Goat
The Mare	Mare	Sheep	Sheep

So that from equal quantiites of milk, the greatest produce of butter would be obtained from that of the ewe; of cheese, from that of the goat; and of sugar, from that of the ass; but, at the same time, the sheep is iuferior to the goat only, and superior to the cow, in the production of cheese. If however, ewe's milk excels that of the cow in the quantity of butter yielded, that butter is inferior in quality; it is less solid, it has an unpleasant, oily taste, and it soon becomes rancid. On this account, probably, there are few places in which mention is made of ewe's butter as an article of food, and there is no recorded instance of its having been an article of commerce.

Apiary.

Candied Honey.

The *Bee-Keepers' Journal* says: Many of our correspondents inquire for a process by which honey can be prevented from candying. We know of no method absolutely succcssful. Sometimes we have known it to be preserved two years, by heating it and sealing it up air-tight. After it candies, houey can easily be reduced to the liquid form again, by adding a little water and bringiug it to nearly the boiling point. If it is then sealed up in air-tight jars or cans and keept away from the influence of light, it will probably not candy again.

Some kinds of honey will candy much quicker than others. Much depends on the sources of supply, the climate and locality. In the Northern States, houey candies sooner than in the south, and that obtained from cruciferous plants, sooner than that from labiate flowers, and late honey candies sooner than that extracted early in the season.

W. W. Stoddard, of England, in experime-nting on the nature and origin of honey, deduced the following conclusious:

The nectar in flowers is simply a solution of cane-sugar, formed and provided for the nutrition of the stamens and pistils.

In the honey-sac of the bee, this sugar comes in contact with formic acid. He ascribes the pecnliar tingling sensation at the back of the throat when much honey has beeu swallowed, to this acid.

After standing awhile, grape-sugar begins to form, and this coutinues till the whole has been converted into grape, when it is said to be candied. Acetic acid is present in candied honey, which injures the taste.

The proportion of formic acid in honey must be very small indeed, as it is a burning liqnid of an irritating odor—very corrosive, producing a sore whenever dropped on the skin. It derives its uame from being first distilled from the red ant (Formica rufa).

Do Bees Seek a Home Before Swarming?—There are times when it seems that they are determined to forsake their hives after being hived, and go to the woods. When they are so inclined it is best to give them a frame of brood from some hive; then they are not apt to leave, and will not once in a thousand times, and it is a much better plan than to clip their wings, as after their wings are clipped they have to be watched in swarming time or you will lose your queen. There are several causes why bees leave their hives. The greatest of them all is, that if they are hived, aud a large swarm, and the hive an extraordinary one, there is so much heat that they cannot stay in and work their wax and they are obliged to leave. Many, as soon as their bees are in the hive, set it down where no air can strike it. The hive should be well ventilated and let the bees pass in and out freely, and the trouble is over.

There are few instances where bees look up a home before swarming, but they are rare. When a swarm has left the parent hive and are clustered on a tree or elsewhere, they no doubt send out explorers to find a home in some hollow tree. The swarm is very apt to stay on the same tree where they first lighted, if it is in a good, cool, shady place. If not, they will soon leave for another trec, perhaps at a distance.

A Honey Plant.—Professor Wood, writing to the *National Bee Journal*, on the merits of Golden Rod as a honey plant, states that each plant may easily bear 1,000 heads, each head consisting of twelve flowerets—12,000 in all—each with its modicum of nectar. The quality of honey yielded by it is pronounced superior.

Bee Statistics.—It is said that there are 2,000,000 swarms of bees kept in the United States, and that every hive yields on an average a little over 22 pounds of honey. The average price at which honey is sold is 25 cents a pound.

Italian Bees.—When honey abounds, black bees will probably gather as much as Italian; when it is only to be got by extra labor, the Italian are sure to do much better than the black. So says an exchange.

Miscellaneous.

Conveying Air Through Pipes.

A Supposed Valuable Invention Explained Away.

We sometime since gave a description of a new device for conveying compressed air through pipes for motive power, whereby it was supposed the frictieu of the air upon the walls of the tube was done away with. The invention may be substantially described as follows:—

If, in a pipe of twelve inches diameter we make at intervals necks of ten inches in diameter, we have au annular space oue inch deep around the inner circumference of the pipe. The theory is that the air contained in this space does not move, but remains at rest, and thus presents an air surface to the moving mass of air ten inches in diameter which flows through the necks. As the friction of air on air is less than that of air on iron, he expects to convey power in the shape of compressed air with almost no loss from friction. The invention is claimed by a Mr. Spear, of Boston, and the marvel was endorsed by William A. Goodwin, "city engineer of Portland, and for some years government lighthouse engineer," who had given the invention a practical trial, and, as he snpposed a thorough test as follows:

He set a pressure gauge on a reservoir which received compressed air, and when a pressure of 40 lbs. was indicated, opened an orifice in the reservoir so large as to exhaust the effect of the compressor as fast as delivered. The compressor is now working into the reservoir, the orifice blowing off and the gauge stands at 40. Suppose the orifice to be one inch in diameter. Now attach to the same a pipe of one inch in calibre, say 100 feet long. At a point near the onter eud of this pipe set a pressure gauge, and the pressure with the pipe wide open, will be found to be something less than 40 lbs. The element of friction has been developed in the pipe. Now take an additional pipe 1¼ inches in diameter; on this find the point where a slight diminution of pressure is indicated by the gauge. Jnst beyond this point insert a ring of one inch orifice in the pipe, giving a shoulder, all around, of ⅛ inch, and the lost pressnre will be found to have been restored.

The reservoir has been virtually moved forward to this point. Repeating the operation at the same distance out from this point as from this to the reservoir produces the same result. Each point or section of the pipe charges the snceeding with original force, and it would seem that there can be no limit to the principle.

And now comes the *Engineer and Mining Journal*, aud pricks the above-described bubble as follows:

It is true that the pressure in the Spear pipe must be more uniform than in other pipes. He obtains this advantage by presenting not less but more friction to the advancing air. At given distances he contracts his pipe so much, that to force a constant quantity of air through the narrow orifice, the pressnre has to increase until it equals that at the compressor. This he puts dowu as a proof that he has saved power? Had he put a cap on the end of his tube the result would have been the same, that is the pressure would have been equal throughout the closed tube. But in this case he wonld have economized uo power, becanse the flow of the air would be entirely shut off. The difference between this case of a closed tnbe and that of a Spear tube, which is a partly closed one, is that in one case the power is entirely shut off, and in the other partially so. In the one case the loss of power is complete, in the other it depends upou the degree to which the power has been shut off.

There is certainly nothing uew in the fact that pressure can be maintaiued at a particular point by partly closing up the tube. Other engineers than Mr. Goodwin have, however, been in the habit of considering that greater pressure is obtained by sacrificing to a certain degree the rapidity of flow, or increasing the motive power.

The *Engineer* further refers Mr. Spear to an instance iu which the old principle involved in the contraction of pipes has been put in use, and ingeniously so, in a new blowpipe reservoir described in that journal, in which the flow of air is diminished and the pressure increased, so that a constant blast is obtained, and solely by the use of contracted orifices.

Blue Sky and Water.—*Les Mondes* quotes from M. Collas the following remarkable views: He first refers to the blue color exhibited by the pure water of certain lakes, and says that it is due to the therein dissolved or very minntely divided gelatinous silica, quoting as instances the lake of Geneva, the water of the d'Huis, and more particularly the water of a source near to the Mont-Dore which water is even blnish-colored when placed in a white glass decanter. The blue color of the sky is referred by the author to the same causes, viz., very finely divided gelatinous silica (hydrated silica) kept in suspension in the clouds on account of its great lightness. A correspondent in the *Gas Light Journal* thinks these hypothesis have a plentiful lack of probal ility. Still no more curious chemical questions oxist that those connected with the distribution of silica in soils, waters, etc. As to silica in the air, except as mere dust, that seems really beyond credibility.

The Road to Scientific Success.

It is no longer possible to know everything. A universal scholar will be no longer seen among men. The range of human knowledge has increased so vastly, has swept out and away so far and so fast, that the brain, be its quantity and quality what it may, caunot, in the years commonly given to man, even survey the field. A mau, therefore, must make up his mind, if he propose to learn auything, to be content with profound ignorance of a great many other things. It is a bitter thing, perhaps, but is the fact, that a man who would know anything in this century must purchase his knowledge with voluutary and chosen ignorance of a hundred other things.

One must choose his specialty, and devotion and diligence to the subject of his choice is the price he pays for success. It is with doing it as it is with knowing. There is only a certain amount of work in either case. He can not do everything. Nevertheless, everything needs doing. All about him is uudone work clamoring for hands. There are two courscs before one. To undertake everything, to fret and grieve becanse one finds this and that undone, and to make spasmodic efforts to do it—this is the way of failure. Resolutely to make up one's mind to let, as far as he is concerned, the most should be undone, stay undone still, to steel one's heart against demands and ncessities, to resist all inducements to put forth a single effort, to close one's eyes to it all, and to stick heart, hand, life, and love to the thing a man undertakes and calls his own—that is the way of success. Life is very short, and the single brain and hand, at best, very weak, and there are thousands of things to know and to do. One must choose, and be content with his choice. And so it comes to pass that now at last the measure of a man's learning will be the amount of his voluntary ignorance, the measure of his practical effectiveness the amount of what he is content to leave unattempted.—*Golden Era.*

Darwin and Agassiz.—Mr. Darwin attempts to prove from the variations of animals in domesticatiou, corresponding variations in a natural or wild state; and on these founds his theory of natural selection.

Prof. Agassiz attributed these variations in domestic animals to the intelligence of man, and holds that physical causes have never been known to produce such effects as the intelligent will of man is known to produce.

However greatly the teachings of these savans may differ in their ultimate results, they both agree that man does exert a very great influence on tho animals which come under his immediate care; that animals iu domestication do vary, and that man, taking advantage of these variations, does by systematic selection, aided by the great law of inheritance, accumulate in certain families or strains of domestic animals, such qualities of economic value as he may desire. These qualities or peculiar traits become, in the course of years, well established characteristics of the family or breed, and are transmitted from one generation to another with almost unerring certainty. In the language of the declaration "we hold these truths to be self-evident," and while from them Mr. Darwin argues his evolution theory, and Prof. Agassiz eulogizes the human intellect, we may confidently trust them as a safe basis from which to work.

Scientifio Predictions.—A curious illustratiou of the power of scientific precision in the prediction of matters by no means dependent upon mathematical data, is fouud in a book on "The Coal Question" in England, published more than seven years ago, by Prof. Stanley Jevons, in which he predicted that the coal consumption of England in 1871 would be 117,900,000 tons. In the volume of miueral statistics of Great Britain for 1871, just published, the actual consumption is set down at 117,352,028 tons.

The Inventor of the Circular Saw.—Au exchange says: "The invention of the circular saw is generally attributed to Captain Kendall, of Maine, who died a few weeks ago at the age of 89. This is a mistake. The circular saw was invented by Joseph Murray of Mansfield, England, son of an old servant of the Byron family, whom Lord Byrou, the poet, often speaks of in his letters as "Old Joe Murray." The first saw of the kind ever made is still shown by his descendants."

Coal Oil Fuel in Russia.—Successful experiments are said to have been recently made in Russia in the use of the products of coal oil for fuel for locomotives. The same fuel has also been applied, with reported satisfactory results, in the propulsion of steamboats. The engineers engaged in the experiments report the accomplishment of more work with this fuel than is obtained from the same value in ordinary fuels.

American vs. English Engineering.—American iron bridges are lighter than those of other nations, but their absolute strength is as great, since the weight which is saved is all dead weight, and not necessary to the solidity of the structure. Tho samo differeuce is displayed here that is seen in our carriages with their slender wheels, as compared with the lumbering, heavy wagons of European construction.

Farmers in Council.

Butte County Farmers' Club.

The Club held their regular meeting Saturday, March 1st. Gen Bidwell presiding.

Harmen Bay placed in the Club-room 16 copies of Agricultural Reports for distribution.

On motion, one copy of all documents obtained by or donated to the Club be retained for the use of the Club, to be kept in the Club-room.

Committee Report.

Messrs. Hallet, DeHaven and Blood made the following report, which was read by Mr. Blood, unanimously adopted and committee discharged:

To the Farmers of Butte County:

Your earnest co-operation is requested in carrying out the design of "The State Farmers' Union," organized September, 1872, at Sacramento by a called meeting of the farmers of the State of California, for the protection, advancement and emancipation of the farming community from the grasping monopoly of joint stock companies, speculators and middlemen, and to afford a central medium of communication between the Farmers' Clubs, organized in the different counties of the State, aiming at the same end.

In this age of centralization, when capitalists, speculators and middlemen all combine to enhance the price of all the farmer has to buy, and to depress the price of what he has to sell, there is no hope for the farmer except in a hearty, earnest and cordial co-operation.

Combination must be met with combination. Farmers must everywhere combine and be prepared to act as one man in all matter pertaining to their common interest. It is worse than folly to expect to successfully compete, single-handed and alone, with the powerful and unscrupulous combinations which are everywhere formed against us. It is only through numbers and concert of action that we can hope to receive a proper remuneration for the outlay of capital and labor devoted to farming, and to raise our calling to the dignity and respect which it should command.

Combination Necessary.

United and working together in harmony, we shall be able to accomplish whatever we may undertake; but we must combine, working together as a unit for the farming interests of our county and State, and we urge upon you the importance of joining the Butte County Farmers' Club and becoming an active, working member, and that you may the more fully understand the design of the Club, we herewith submit a copy of our Constitution and By-Laws.

A committee will visit, upon request, each school district in the county and hold a public meeting, when they will explain the aims, purposes and working of the society, and give to all an opportunity to become members of our county organization. The County Club will hold monthly meetings at their rooms in the town of Chico, for the transaction of business and the discussion of such questions of interest as may be brought before it, and at which every member is expected to attend who can do so without too great inconvenience to himself. And it is recommended that members of the Club throughout the county meet in their respective schoolhouses at least once a week for the discussion of such questions of local and general interest as may be brought before them.

Special Order.

The special order, "Plowing by Steam Power," being called for, Gen. Bidwell begged to be excused from discussing the subject at present, not having time to prepare.

The matter of Narrow Gauge Railroad was then taken up and discussed by Messrs. Findley, Thorp, Helphenstine and others.

Gen. George B. Cosby thought it the duty of the farmers to secure for themselves first, the best possible crop, and then the greatest possible price. The professions of different kinds unite and combine for their mutual interests and to protect each other. Farmers have more means and money at their command, and if united, would have more power than all others combined, but being disunited they have no well directed strength or power. He had no confidence in expecting a reduction of freight by the C. P. R. R. Co., and he thought no man should object to subscribe toward building the Narrow Gauge Railroad. In answer to a question, he said that it would not take more than four months to complete the road from Jacinto to Chico. Objections had been raised that Stanford & Co. would buy up the road, but he reminded those objectors that the obligation to carry freight as agreed upon would remain the same, and cannot be removed, no matter who owns it. The cause of delay in commencing to build the road arose from the fact that the survey ran through the Government Arsenal grounds at Benicia, and the company had been waiting for Congressional legislation for the right of way through those premises.

Discussion closed.

On motion, Mr. Sissum was requested to prepare an essay to read before the society.

A. F. Blood presented the following:

Resolved, That this Club will give its influence to bring to punishment of every case of cruelty to domestic animals which may be brought to its notice.

On motion, the Library Committee was authorized to procure the publication of the report of special committee on organizations, not to exceed a cost of ten dollars.

Adjourned.

Oakland Farming, Horticultural and Industrial Club.

Feb. 28. President Carr in the Chair. We extract the following from the report of the *Daily Transcript:*

The Secretary read a communication from the Sacramento Club, inclosing a memorial to Congress concerning railroads, the remedy for their abuses, which has already been published in the Rural.

A. L. Bancroft & Co., requested a list of members of the Club.

A communication was received and read from Henry Godart, upon the making of red wine—stating that California could beat the world, and Alameda county could beat the State. The writer claims to be a scientific wine maker from "Bouuie France."

Gophers and Squirrels.

Mr. Dwinelle spoke upon the manner of killing gophers and squirrels. He recommended the mixing of wheat with the white of an egg and adding thereto strychnine and flour, with a little sugar to counteract the bitterness of the strychnine, stir until dry, and a very little will wind up the career of all the squirrels which indulge. The holes should then be filled up to prevent new colonies from occupying them.

Mr. Nolan gave his experience on the gopher question. He managed to rid his gardens of gophers with strychnine administered in carrots, which effectually annihilated the pests.

For three months the gophers seemed not to be effected by the strychnine process, and then suddenly all were cleaned out. Mr. Dwinelle stated that they have seasons for storing away food when plentiful, and they may not have eaten the carrots when first distributed.

Mr. Nolan considered a thorough and free cultivation of the ground diminished the gophers.

Mr. Pryal gave his views upon the physiological construction of gophers. He stated that the gophers had a natural prejudice against the acacia and conifera; the roots of these trees drove them out sometimes.

Mr. Dwinelle remarked that the squirrels sometimes manifested a prejudice against taking the poisoned wheat. Their prejudices could be overcome by baiting them with clean wheat first.

Mr. Horner, near the Mission San José, said he had some experience in the gopher and squirrel business. Squirrels he found no trouble in destroying—using wheat mixed with phosphorus, which destroyed them by the wholesale. Gophers constituted a different subject. They had been killed by "retail." But he had discovered a mode by which, they too, could be killed by wholesale—it was by digging down to the main streets which the gophers traversed, which were about twelve inches deep, and by placing the phosphorus in these runaways, or streets, they could be destroyed by wholesale. He stated that the gophers and squirrels were a greater tax upon the farmers than that of the State and County Government. Mr. Pryal recommended that a "squirrel day" be inaugurated for the destruction of these animals throughout the State. San Francisco sports might help Alameda County then. This plan was thought well of by Mr. Dwinelle, Mrs. Carr and others.

Dr. Carr asked if these animals ever effected any good, as generally animal pests had some beneficial qualities. Mr. Dwinelle thought they sometimes effected drainage—that was the only good he ever noticed. Mr. Lehman stated that he could make a trap that would catch every gopher in the neighborhood in a few days. His trap would also take moles. Frederick Pfleiderer (a practical gardener who applied to the Club through the Secretary for assistance in obtaining work) stated that moles are usually active from 4 to 5 A. M., 11 to 12 M., and just before nightfall, at which hours by watching their movements they can be thrown out of the ground with a spade and destroyed.

Miscellaneous Subjects.

Mr. Pryal recommended that the Farmers' Club elect a delegate to represent the farmers of the State at the Vienna Exposition.

Mr. Dwinelle called attention to the thistle question, and stated that Roadmasters were directed by statute to destroy all Canadian and Scotch thistles by the roadside; also that farmers were required to destroy thistles on their land, and on failure, the Roadmaster is directed to destroy them at the expense of the land owner.

Mr. Pryal proposed that at the next meeting the subject of having an expositiou of Agricultural, Horticultural and Machine Arts be discussed. Adopted.

On motion the petition of the Dixon Club (published in Rural Press) was endorsed and recommended for signatures.

Beet Sugar.

Dr. Carr stated that Dr. A. F. Partz would possibly address the Club at the next meeting on Sugar Beet Culture and Sugar Manufacture. A resolution was passed inviting Dr. Partz to address the Club. Adjourned to Friday evening, March 14th.

San Jose Farmers' Club.

The Club met March 1st, President Casey presiding:

A communication from the Executive Committee of Farmers' Union was read, calling for meeting of the Union on the 9th inst. at Mechanics' Institute, in San Francisco. Also submitting proposition for purchase of sacks.

In the matter of selecting question for next Saturday, it was decided to call up at that time some one of the numerous questions now lying on the table.

Under the head of questions and answers, Mr. Dubois wanted to know what it is that eats the seed-wheat after it is put into the ground; much of his wheat that was not covered with the harrow has had the meat eaten out leaving nothing but the shell.

Mr. Cadwell thought it might be the weevil.

Mr. Holloway did not think the weevil would operate in that manner.

Mr. Dubois also said he had some grain that the worms had eaten and wanted to know the best time to sow it.

Mr. Hobson thought it should be delayed until the worm had developed into some other shape. The debate being on the exemption of city property from taxation for road purposes, the majority and minority reports of the Committee were read.

Mr. Holloway moved the adoption of the majority report.

Here a long discussion ensued on the subjects of assessments, taxes and exemptions of city property.

Here a long discusion ensued on the subjects of assessment and exemption of city property from road taxes and resulted in the adoption of the majority report.

Mr. Holloway moved that a committee of three be appointed to carry out the recommendations in the report. Carried.

The chair appointed Messrs. Holloway, Chipman and Bergland as such Committee.

Adjourned.—*San Jose Mercury.*

Santa Cruz Farmers' Club.

The Club met at the Court House in Santa Cruz on Saturday afternoon, March 1st, 1873. The President, J. S. Mattison, in the chair.

Mr. Mattison stated that the question, "Why we have such poor goods and such heavy taxation," had been proposed in the club some time ago and he thought it would be well to take it up at the next meeting.

Mr. Feeley stated that he had seen from an advertisement in the Pacific Rural Press of a kind of fruit box manufactured by Swan & Co., San Francisco, and that the company would send a sample of the boxes to any farmers' club for inspection. On motion the Secretary was instructed to write to Swan & Co. and solicit a specimen of each of those boxes.

Mr. Feeley stated that he thought something ought to be done towards taking steps to join the Farmers' Union. That this club had a representative in the Union, but that it was not very pleasant for that representative to attend its meetings while the club had no connection with it.

On motion of Mr. Cahoon the subject selected for discussion at the next meeting was, "Joining the Farmers' Union," and that the Secretary be instructed to insert a notice in the *Sentinel* requesting a general attendance of the members.

The amendment to the Constitution, appointing an auditing committee, consisting of the President, Vice-President and Treasurer, was adopted. The club then adjourned for two weeks. R. C.

Sonoma County Farmers' Club.

The Club met, as usual, on Saturday, March 1st, and appointed a special meeting for next Saturday of a most important character. Mr. Rector, of the Santa Rosa Club addressed them them on the subject of an incorporation of farmers into a Farmers' Union—separate from the Clubs in its organization, though composed of the same members to a great extent. The object is to form a ring of farmers against a ring of merchants, shippers, etc., or middlemen, and so save money for themselves. They propose to buy their own sacks from the first producers, charter their own ships, import or manufacture their own agricultural implements, etc. It is so late in the season now that there is no time to perfect the organization and get in orders for sacks for this years' crop, under the auspices of such an incorporation. But next Saturday the parties interested will meet and make up an order for sacks as many as they want, and send on without delay. It is estimated that 500,000 sacks will be wanted for Sonoma county alone. Last year they would have cost not less than $100,000, and this year it is expected to get them laid down in San Francisco for $62,500, which is a saving to a farmer of 37½ per cent.

The Farmers' Union is, of course, an experiment, but promises abundant success in such items as this. The first steps in the matter were taken at Santa Rosa, and the coöperation of all the county is desired. C. S.

Petaluma, March 3, 1873.

San Joaquin Valley Wool Growers' Association.

A number of wool growers' in San Joaquin valley held an adjourned meeting at the County Court room March 4th, Caleb Dorsey of Stanislaus county, in the chair. G. A. Carleton was chosen temporary Secretary.

The Chairman, in a short but pertinent address, stated the object of the meeting to be the organization of an association for the protection of the wool growers' interests, and to handle their own wool, prepare it for market, and to contract the sale themselves.

Dr. A. T. Hudson of Stocktou, urged the necessity of speedy organization, and with the view of expediting matters, suggested the election of officers without further delay. The Chairman suggested the propriety of preparing resolutions covering the objects of the proposed association, and then upon these resolutions subsequent organization could be based.

The Secretary, Mr. Carleton, suggested that a committee be appointed to draft a constitution and by-laws, to be presented to the association for ratification. Mr. Miller moved that a committee of three be appointed to perform the duty suggested by Mr. Carleton, and to report at a subsequent meeting.

On Motion, Colonel Dorsee, Dr. Hudson and Dr. Henderson were appointed said Committee. Mr. Miller stated to the meeting that Mr. Potter had tendered the free use of his large warehouse on the bank of Mormon slough to the Association until such time as it might be required for storing grain next harvest.

After some general discussion of matters pertaining to the business of the proposed association, a temporary organization was effected by the election of the following officers: Colonel Caleb Dorsey, President; Louis Haas, Vice-President; G. A. Carleton, Secretary; Dr. A. T. Hudson, Treasurer. Directors—Wm. L. Overhiser, Samuel Miller, Green Baker, L. U. Shippee, Wm. C. Miller, and Mr. Warner from Stanislaus county. The name of the organization is "The San Joaquin Valley Wool Growers' Association." The capital stock is fixed at $100,000, divided into shares of $100 each. —*Independent.*

Oregon—Linn County Farmers' Club.—The Linn County farmers held their first meeting at the Court House to-day, which was attended by delegates from all portions of the county. A club was organized, speeches made, resolutions passed, etc. They resolved to build warehouses at Albany and Astoria, to handle and ship their own grain, and pay no more tribute to middlemen. Subscription books were opened and small amounts subscribed. In point of numbers the meeting was a success.

Farmers' Club.—We have not space for a detailed report of the proceedings of the Farmers' Club, which met last Saturday. The meeting was the largest yet held. A considerable amount of the stock of the Farmers' Union was taken. J. A. Pugh, J. Fulton, J. J. McClellan, S. T. Coulter, and H. P. Holmes, were appointed Directors. We will endeavor to give the proceedings next week.—*Democrat, March 8.*

Patents & Inventions.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[Reported Officially for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., March 11th, 1873.

For Week Ending February 25th, 1873.

Anti-Friction Metal.—George S. Hunt, Sacramento, Cal.

Compound for Destroying Insects, Vermin, Etc.—Edwin B. Sears, S. F., Cal.

Swimming Bath.—Patrick Bralley, Oakland, Cal.

Broom.—Syranns Staudish, Eureka, Nev.

Securing Lock Spindles in Safe Doors.—Richard Young, S. F., Cal.

Medical Compound for Ointment.—Mary Ann Curtis, S. F., Cal.

Reissue.

Hydraulic Telescopic Platform Elevator.—Judah Parker and Isaac Cook, said Parker assigns one-half interest to Samuel P. Taylor, S. F., Cal.

Trade Mark.

Cutlery.—Nathan Joseph, S. F., Cal.

——*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Oakland Farming, H. and I. Club.

At the meeting on Friday evening, March 14th, the matter of holding a Horticultural and Mechanical Exhibition in Oakland, will be discussed. Dr. E. S. Carr will also address the Club.

S. N. Laird, who was to have furnished us some notes on Oakland nurseries, (about Feb. 1st.,) has been ill or for some other reason has failed to send them in.

Agricultural Notes.

ALPINE.

Chronicle, March 1: Heavy Gale.—Last Sunday evening we were visited by a snow storm which was accompanied by the heaviest gale ever experienced in this section by our "oldest inhabitant." It frightened the timid, and did not set very well on the bravest of the brave. The heaviest blow was between eight and ten o'clock, and at midnight all was quiet, the snow falling briskly until morning, giving us about eight inches. An unoccupied building on the lower part of Main street was blown down and several buildings in town were blown out of line. In Carson Valley much damage was sustained by the farmers. Lute Olds had a barn carried off so clean that no one would suppose he ever had a barn. Tip Cary had a large barn unroofed and a smaller one completely wrecked, entailing a loss of about $1,500. Pete Vansickel's large barn was unroofed and damaged to the amount of about $1,000.

BUTTE.

Enterprise, March 7: In the Country.—On Tuesday we took a ride into the country, and give the following as the result of our observations:

Mr. Bennett has one of the best ranches of the county. It does not embrace as many acres as many farms of Butte, but is as well if not better managed than any farm of the county.

Last year Mr. Bennett raised on one hundred and eighty acres, 6,523 bushels of wheat, making an average of thirty-six bushels aud over to the acre. The farm is laid off into convenient fields, the best of fencing, and with a view to a proper disposition of lands intended for pasturage and cultivatable fields. It has fine water privileges and an abundance of timber.

Upon the premises is a new orchard and vineyard, looking finely, planted in perfect regularity and promising all that could be wished. Mr. Bennett is drawing around him the best of stock—good horses and cattle, Cotswold sheep, and designs putting much of his lands the coming season in Alfalfa, and purchasing and raising the best stock of the State.

He will honor his fine property with a new house, and then we do hope he will supply the most needful want—a wife. Mr. Bennett has procured from Chicago, one cock and two hens of the celebrated Cochin breed of chickens. They are the largest and most beautiful specimens of domestic fowls we have ever seen.

More of Butte farms next week.

EL DORADO.

Republican, March 6: Rainfall for February, as kept at the Placerville Grammar School, 11.77 inches. Total for season, 30 21-100 inches.

Ice-Snow.—Jno. McF. Pierson, came down from his ice ranch on Saturday. He has put up 80 tons, about 25 tons more than he put up last season, and expects to put up 15 or 20 tons more. He states that the snow was eight feet deep up there on Thursday last, and that he came down to the six-mile house on snow shoes. He reports deer plenty, but on account of the great depth of snow it is not very much sport to hunt them. His ice ranch is abont 30 miles east of this city.

MERCED.

Argus, March 1st: Grape Cuttings for Texas. — James T. Chamberlain, one of the oldest residents of Merced valley and an experieuced orchardist and vineyardist, has been engaged during the past winter in making selections of grape-cuttings and fruit-tree grafts for planting in Texas, his old home. In his collection he has the finest varieties of table, raisin and wine grapes, and grafts of the best varieties of apples, pears and other fruits. Mr. C. intends establishing a nursery upon a large scale on the Brazos river, Texas, and his experience in the cultivation of vines and trees warrants success.

Cotton.—Hart Ellison is preparing to plaut 70 acres of cotton this season on the Spears ranch, near this place. The cultivation of this valuable staple will be largely increased during the present year in this county.

The Rain. — The rainfall during the late storms amounted to 2.85 inches, which, added to the amount which had fallen up to the time of our last report, makes tho rainfall of the season to date 13.94 inches. Tho earth now seems to be thoroughly saturated and the crop prospects are better than we have ever before seen them at this season of the year.

NAPA.

Reporter, March 8: Napa County.—Many seasons have elapsed since the certainty of full crops in this enviable portion of our State has been assured us. We may be thought premature, but that will not prevent us from believing and saying that Napa county will this year bo a cornucopia to her inhabitants.

Napa Wheat.—On Thursday last Mr. Wm. Imrie, at the request of Mr. Andrew Nichol, of Cedar county, Iowa, shipped him two sacks of wheat, raised on Mr. Imrie's ranch in this county. One sack was Australian and the other Liberian, and is shipped to Mr. Nichol for sowing in Iowa. It would seem that thore is no State in the Union where Napa county is unknown or uuappreciated.

Berryessa.—This valley gives greater promise of a largo crop this year than ever before. More acres have been sown, and joy reigneth there, for plenty is assured. May their fullest hopes be realized.

The crops of grain in our valley, as well as in Sonoma, are looking splendidly, and there is every prospect for a prosperous season for the farmers.

Exporting Grape-vines.—Mr. Chas. Krug has received and filled an order from Peru for 5,000 grape cuttings, comprising twelve fine foreign varieties.

Register, March 4: Lower Lake.—The weather has been cutting up some strange capers lately. Sun, rain, hail and snow, the same day. Our last snow storm was the heaviest of the season. Snow fell in the valleys te the depth of six inches; and, in some places, the ground was covered for three days.

Our farmers are done seeding, and have a good prospect for an early and bountiful harvest.

NEVADA.

Republican, March 6. Storing Fruit in Truckee.—Messrs. Gould & Co., of Santa Clara are extensively engaged in raising, buying and selling winter fruit, and shipping it across the continent to Chicago and New York. As the climate of Santa Clara, San Francisco, Sacramento valley and even the foothills of the Coast Range and the Sierra Nevada is too warm for the preservation of winter fruit, Messrs. Gould & Co. have located their principal fruit store house in Truckee, where the temperature in winter is mere favorable for their business. This store house is built mostly of brick. The building is 100 feet long, 36 feet wide by 15 in depth. All the available space is fitted up with tiers of open racks for holding fruit. They have now in their store house 5,400 boxes of various kinds of winter apples and about 500 boxes of winter pears. These boxes hold 50 pounds net each, which make an aggregate of 295,000 pounds of fruit. The fruit, upon its arival here in boxes, is taken out carefully and spread in the open racks. The temperature of the store house is kept very low, averaging about 36 degrees Fahrenheit. The maximum temperature never exceeds 40 degrees, and minimum 28. At the latter temperature water freezes, but the fruit does not. The mean temperature, 36, is considered the best for preserving the fruit. The varieties of apples are the Newton Pippiu, Pearmain, Bellflower, Baldwiu, Spitzenburg, Rhode Island Greenings and Swaar. The Newton Pippin keeps the best of any. The loss of the fruit stored here we are informed will not, up to the first of March, exceed five per cent. A portion of the fruit is sold in this vicinity, and the principal towns in the State of Nevada, but the larger portion is shipped to supply the San Francisco market. A few car loads are sent by rail to Chicago and New York. The business is in its infancy, but it is a success, and is bound to increase rapidly.

SAN LUIS OBISPO.

Tribune, March 1: The main feature of the present season is the greatly increased area of land put into grain. The bay counties, being so thickly populated have long ago reached their ultimate capacity of production. Their constantly-tilled lands now flag for want of rest and refreshment. Our immense county is as yet a comparatively untried field, and this is the first year when an attempt has been made to scratch the ground to such extent as to be visible to the naked eye. Large eligible tracts of level and fertile soil could be seen, stretching in every direction, in an uncultivated conditon, and presenting a standing reproof to the indifference and want of enterprise of our inhabitants. The year 1873 will mark a uew era of progress, for sufficient ground has been broken up to demonstrate that the farmer has at length got to work in real earnest. The cattle are already nearly banished from the coast section, and the sheep will have to follow. Mustangs are already well nigh exterminated. Soon the dairyman will be the only stock owner who will dispute with the grain-growers the empire of the fairer portions of our county. Last year was the first in our history when any large quantity of grain was shipped for San Francisco. This year that amount will be trippled. Again we congratulate our readers upon the certain prosperity which is now dawning upon us, and we prophecy that the county will soon make such rapid strides that we shall attract the attention of the residents of less famed localities in such numbers as will revolutionize our former stagnant condition, and place us in the first rank among tho counties of the State.

SANTA CRUZ.

Sentinel, March 8: Farming. — About one-fourth more land (principally uplands and rolling hills) in Pajaro Valley, will be planted this year than last. Crops nevor looked finer at this season of the year.

Early Vegetation.—We noto that the leaves are more advanced, and in bloom, all through the Pajaro valley, than in Santa Cruz. The peach and pear trees are in bloom and promise a full crop.

SANTA CLARA.

Gilroy Advocate, March 8: Delightful.—After the protracted season of wet and gloomy weather which characterized the past month, we can more readily appreciate the beautiful weather of the last few days. This month was ushered in with clear skies and a warm sun, and with the exception of one day of clouds, the first installment of spring weather has been most delightful. The niccly tempered rays of old Sol have giveu au impetus to vegetation, and tho valley and hillsides are carpeted with a lovely covering of green from Nature's loom. Trees are putting forth their leaves and blossoms, flowers are opening their tiny petals, and already the air is becoming redolent with their rich aroma. A few weeks of such weather will infuse fresh life into things animate, aud inanimate, and the cry of dull times will be no longer heard.

SONOMA.

Flag, March 6: Ukiah March 2.— Thus far, our Winter and Spring have been peculiar. We have not had any superabundance of rain, but we have had enough to thoroughly saturate the ground, and the wet weaher springs are now flowing freely. Russian river has not been past fording more than three times this winter, and in no instance has it remained in this condition more than twenty-four hours at a time. If this were our guide, we would call this the driest winter we have ever seen since our sojourn in this benighted region. But this is not a correct guide. Our rain has come, not all at once, so as to flood all the low lands, but just about enough at a time to keep the ground in a good condition for plowing and sowing grain, aud seldom enough to prevent the farmers from work. I am not fully posted on the proportion of acreage sown this year, compared with former years, but I do know that Ukiah Valley is being better farmed this year than it ever was before. From farmers we learn that the grain sown early looks well. In fact, there has been no seven days at a time, the whole winter but what farmers could plow and sow grain.

TULARE.

Reduction of Freights.—*Delta*, March 6: Mr. W. H. Van Valer, of Tipton, informs us that the charges for express freight by the passenger trains to San Fraucisco from the stations on San Joaquin Valley road, have recently been reduced one-half to those who contract to ship regularly such perishable articles as eggs, wild game, fresh vegetables, etc. We hear that I. B. Rumford, of Tule River has contracted to send a large quantity of green peas, having engaged in this business by planting a large area of ground. A man named Woods is shipping quautities of game from Tulare Lake.

Worse and More of It.—A well-to-do farmer who did not take the *Delta* last year, has met with a serious loss in consequence. From feeding cows and swine together on sugar cane, he has lost several hundred dollars worth of fine milkers. We cautioned our readers against this practice some months ago, and gave a description of the disease as furnished us by Mr. Sands Baker, who was the first to lose stock in this way in this vicinity. The worst feature of this affair is that the former referred to owes several year's back subscription, and was cut off our list for non-payment

Moral. Take the *Delta* and get the news. It pays.

VENTURA.

Signal, March 1: Luxuriant Pastures.—We doubt if any other region on the globe affords richer or more abundant natural pastures than Southern California. It does one's soul good to wade through the dense, rich growth of alfilleria and clover at this time of the year; they abound on hill and in dale, in field and forest. and have been nearly equally good the past two months, and will continue to be up to the rainy season next winter. Stock is rolling fat, and when these grasses become seeded (in June and July) they will wax yet fatter. Truly our pastures have no parallel.

Prices of Land.—There is continual inquiry from Eastern people for prices of land. T. R. Bard has unlimited quantities of all grades. He advertises arable land at from $5 to $12 an acre, and grazing and dairy lands at from one dollar to three and a half an acre. A. D. Barnard has improved lands of every description, ranging in price from $5 to $30, and several thousand acres at $1.50, said to be as good grazing land as the county affords. Titles good in every instance named.

When people can buy such lands at these prices there can be no just cause of complaint. A single clip of wool from one of a dozen sheep that could be fed on each acre of these grazing lands would pay for an acre.

Rents of land are low and all iu favor of the tiller of the soil. Everything will be furnished, teams, seeds, etc., and rents can be paid in money or a share of the crops. House rents are high. Labor is dear—so dear in fact that people here rarely build unless their business compels them; and where so many are coming in, of course tenement houses, of which there are but few, are kept well filled at big prices. But no one need suffer from this fact. A little energy and a very little money will make a comfortable tenement for this climate in a few days. In fact, so far as comfort is concerned, a canvas tent would be equal to the best plastered houses east.

Signal, March 8: A memorial is being extensively circulated through the southern counties, requesting the Genoral Government to turn the waters of tho Colorado river into tho Colorado desert and make it an inland sea. Another humbug!

OREGON.

State Journal, March 1: Fine Wheat. — We have seen at Mr. Peter's store a specimen of spring wheat raised by Mr. Geo. Belshaw last year, which we think will compare favorably with the best wheat of any State in the Union. The wheat was sown in tho spring, and yielded forty-five bushels to the acre. Mr. Belshaw has a thousaud bushels of it on hand yet.

Oregonian: A Yamhillian is manufacturiug a cultivator of his own invention.

The buildings of the Agricultural College will accommodate 300 pupils.

Albany's big hog weiged 659 pounds dressed, according to the *Democrat*.

Monroe Hodges, of Soap Creek, has sold his farm of 650 acres to A. Fuller, of Corvallis, for $8,000.

Potato planting has begun in Benton Co.

Oregon raises as good tobacco as almost any other State, and yet npwards of a million and a half of dollars are sent abroad every year for this article.

The Mountain *Sentinel* says cattle in some parts of Union county are getting quite thin in consequence of the extremo length of winter, and that they will need no more snow there before July or August.

The Farmers' Club at Peoria, Linn county, met on the 15th and elected S. D. Haley, D. C. Curry and T. L. Porter, as delegates to attend the Farmers' Convention to be held at Albany, March 8th.

The Dallas *Republican* says the weather is most delightful and has the appearance of spring time; the roads are drying up, and we expect soen to see the farmer sowing his wheat and oats over the beautiful fields of Oregon.

A gentleman just down from Corvallis informs us that wheat buyers in Benton county are very quiet at present and he thinks but few more sales will be made there this season. The highest price paid there this season was 80 cents per bushel, but that was only one day.

A Union county farmer says there is one lesson our farmers should learn—when their store houses are filled to overflowing with wheat, oats and barley, not to sigh for that condition of things which can only result from their having depleted granaries and nothing to sell.

A gentleman from Yamhill county informs us that the wheat crop in that county the present year is not likely to be quite as large as it was last. Many farmers up there have begun to practice the system of rotation in crops and will sow other cereals or plant vegetables, instead of wheat, the coming season.

Through a private letter from southeastern Oregon, we learn that the winter in that part of the State has been the mildest ever known. The grass is green, the farmers are preparing for their summer's work and everything looks like spring. The cattle, of which every little valley is literally filled, are looking as well as they did last fall.

The *Mountaineer* says: "Mr. Charles Denton, of Mill Creek, has just received direct from the United States Agricultural Department, a lot of grafts of apple trees imported from St. Petersburg, Russia, in 1870, by our Goverument. Mr. Denton says he will graft them into two and three-year old trees, and will give them all the care possible to bring them to maturity. Thus will be introduced a new variety of apples to this section of Oregon."

Until late years people of the Eastern States have popularly supposed that Oregon was a nothern county in California; and if anything of an interesting nature was telegraphed thither as having occurred in Oregon, the inquiry was immediatly raised, "What part of California is Oregon in?" We have all seen in Eastern papers accounts of ascensions of Monnt Hood, and the credit invariably given to California of being the possessor of this grand old king of the mountains. That State owes its wide spread popularity to the discovery of its gold mines, and as the population of Oregon at that time was almost inexcusably sparse, no attention was awarded to our own gold mines; nor to our unsurpassed natural facilities as an agricultural and stock growing country.

But we will not quarrel with our neighbor, for the bread which she has cast npon the waters has, after many days, begun to return, and is anything but desirable results. Californians have usually shouted over the Oregon line, satirically: "Oh, what a wet climate you have up there, you miserable Webfect!" while at the same time their own throats were so parched in consequence of their annual drouths, that they could scarcely give the sentences utterance.

The truth is, so far as climate, soil, and natural advantages are concerned, few countries equal, and none surpass Oregon; and this truth is rapidly becoming known to the people of the Eastern States.

WILLAMETTE VALLEY.

Correspondence Willamette *Farmer*, March 6: There have been but few days since last fall, but men could plow and do other out-door work in this valley. And a letter just received from my son who is herding 300 head of stock on Crooked river, east of the Cascades, owned by him and his brothers mainly, states that the winter there is mild and open, and stock fat on the wild bunch grass there, on millions of acres of unclaimed surveyed lands. That is the country for broken down dyspeptics and ague ridden peoplo. There have been just rains enough out there to make the grass greon and mellow the ground for plowing.

The sun shinos there with brilliancy, and the air is clear as crystal. In that portion of Oregon—275 by 140 miles, millions of cattle, horsos and sheep live and fatten, and each one not cost the ownor 50 cents a year, and that for salt. We say then to strangers, come here to a friendly, moral, loyal people, who will extend to yon warm friendship and sympathy.

You can have all tho grades of schools from the normal to colleges of first olass. The gospel is hero, and its fruits are manifest.

Profits from Tin Scraps. — The Company in Now York which is working the patented process for recovering the tin from the waste "scraps" is said to realize a net profit of $55 for each ton of waste treated.

Producers, Middlemen and Consumers.

We find the following excellent article on the subject of producers, middlemen and consumers, in the Chicago *Journal of Commerce* of Jan. 30th, and though somewhat lengthy, yet as it tells so completely the story of the farmers grievances and suggests at the same time effective remedial measures, is as applicable in California as in Illinois, we give as much of the article as we can possibly spare room for, believing it will be appreciated.

"The disenssions which took place in the recent convention of farmers at Bloomingtou, disclose to plaiu view the principle evil which affliets the agricultural community. High rates of transportation were freely denounced, but the greed and extortion of the middlemen who stand between the farmer and the manufacturer, and superinteud their exchanges, were quite as bitterly stigmatized. It was clearly to be seen from the speeches of various delegates, that the real grievance consists in eonstant and great dependeuce, no less upon those who buy and sell, than upon those who fetch and carry, between the men who till the soil and those who make the implements of husbandry, or, generally speaking, those who convert raw materials into finished articles needed for consumption by a rural population.

Produeer and consumer being, for the most part, widely separated, a various class of intermediaries is required, whose services are liuited to effecting changes iu place, or to managing sales, and who derive their pay from the diseonneeted prineipals, reduee the distanee between these principals, and at onee the nuuber aud expense of the go-betweens are diminished. Bring these priuciples into the same neighborhood, and forthwith the middlemen, formerly so indispensable, cease to be needed. Both principals then superiutend their own exchanges; while producers and eousumers, placed side by side, more quickly aud more satisfactorily supply each other's wants, with advaneing prosperity.

To the extent, therefore, that the farmer ean sell his growths in his vicinity, and can buy his supplies of the near-by manufacturer, does the middleman lose his importance, and his power to force his services, at his own rate of compensation, upon the community. On the contrary, every additional mile which intervenes between the farmer and the manufaeturer, increases the dependence of both upon the transporter and the trader, and tends to make these allied intermediaries masters of the situation.

Although much complaint was made at the Bloomington convention about the oppressive cost of trausportation, the great burden of utterauee related to the middlemen. Nearly every speaker had something to say against the greed and extortion of these go-betweens. We cull the following illustrative remarks from various parts of the newspaper reports of the proceedings, as giving the most striking presentation of thought, feeling, and experience on the subject:

"Mr. Porterfield said they (the farmers) should organize, and do what they could themselves. His organization was begun in Sidney township, Champaign county, two years ago. After talking about raising crops, they came to talk about selliug them. They found the whole number of hogs they had; sent a committee to a packer, and received more than if they had been sold to a dealer in town. Then they looked at farm implements, which they had been paying dearly for to home dealers. They appointed a committee to correspond with the manufacturers, and after a time they bought all the implements at thirty days' time, gettiug cultivators for $20 which cost $35. The purchase was a sneeess.

Then they made arrangements to sell their grain. When they went to the railroads as an association of one hundred farmers, having one hnndred thousand bnshels to send, they got the rates wanted. If they were organized everywhere, the railroads would see they were in earnest. The association had made arrangements for shipping their corn straight through to the consumer, and they got five to eight cents a bushel more than by selling at home."

"Mr. Gorham, of Whiteside, gave the statement of his experienee with the Farmers' Club, which had saved the members over $2,000 by buying directly from the manufacturers. They saved about $10 on plows, $30 on reapers, $13 on corn-planters, $20 on sewing machines. Wheat they sold directly to the miller. Last season they got several cents more a hundred for pork than if they had no orgauization. They shipped butter, eggs, etc., and got better prices for them."

"Mr. Dunlap said: 'We have charged a part of the great army of middlemeu with taking too large a share of the products of labor; of combining for the pnrpose of creating artificial conditions of the markets; and, by other indirect means and practices, degrading the profession, and injuriug the business of producing, by the changing of valuos, thus leading to a demoralized coudition of trade as regards supply and demand."

"Dr. Hooton said he had talked with one manufacturer, and asked why he could not sell a plow for $11 for which his agent asked $16. He replied if he did so, he would, by his agreement, have to pay the agent $6. They must get rid of the middlemen."

"Mr. Graham said manufacturers up north were willing to get rid of the old system, and sell for cash, getting rid of the percentage paid the midlemen, and charging farmers ten per cent."

"Mr. Smith, of Kewaunee, said there were too many drones in the hive of industry who absorb the profits of industry. Every day's work at a cloth-mill was seut to a eommission merchant, who got 10 per cent. The jobber got 15, and the retailer 25. He would not object, if these people added anything to the value of the fabric, but they did not. He was not making war npon the middlemen; but merchants should buy direct of manufacturers, aud save two intermediate profits. He would not object if he got an inereased price for his eorn, but that had gone down, while everything else had gone up. Why conld not a neighborhood unite and bny goods direct from the mill? It was the misfortune of farmers that they alone had no voice in fixing the priee of their products."

"A delegate from Knox objeeted to seeiug stout men acting as dry goods clerks, when they could follow some useful trade, and beeome producers. They should get rid of the middlemen, and, by giving their profits to the farmer, ameliorate his condition."

Much more was said to the same purpose. This strain of complaint marked the whole course of the debate. Every delegate seems to have felt the oppression of having to contribute largely to the support and profits of a numerous and various class of persons whose sole employment is to stand between produeer and consumer, and superintend ehanges in place and in ownership. So far as experience told its story, an immediate amelioration of the farmer's condition had attended every successful effort to dispense with the services of intermediaries between tillers of the soil and fabrieators of raw materials. To effect this result, there had been a resort to the power of association and combination among the farmers.

When the time comes that the farmer can fiud consumers of his products in his vieinity, aud the necessity to send his surplus to distant places for sale is trifling, the trouble about high rates of transportation will cease of itself. The manufacturers from whom the farmers separated themselves, when they settled a new or wilderness country, mnst again be brought into the neighborhood of the farm. Meantime, in default of that, the next best thing is to remove as many obstructions as practicable from direct communication betwcen the farmer and the manufactnrer and the consumer."

San Francisco Mint.—The coinage at the San Francisco Mint for February was as follows: Double Eagles, $1,290,000; silver dollars, $700; half dollars, $2,500; half dimes, $16,200; total, $1,219,000.

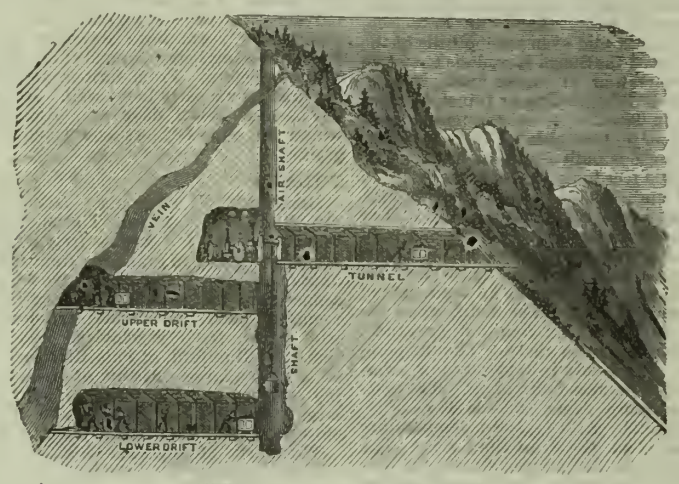
"Does Color Indicate Quality."

I rather doubt the correctness of Mr. Briggs' conclusions ou this subject. The red apple is not invariably the best. Take for instance the richest of all known apples, the Harrison, the must of which contains a higher per cent. of saccharine matter than any other apple, and it is yellow. The Yellow Bellflower, Newtown Pippin, Newark Pippin, and a host of others I might name, do not suffer in comparison with Jersey Black, Winesap, Smith's Cider, and Ben Davis. Neither do I believe that white hogs, white cattle, or even white horses, are less hardy, or less vigorous than colored animals. Indeed, I think the argument from nature is that they are more hardy. Almost all polar animals as well as birds are snowy white.

It is in cold climates that we find the white bear, the snowy owl, the white raccoon and the white rabbit, and I might add the white man. Is nature mistaken in this matter? I think not, and yet I agree with Mr. Briggs that colored fruits, and colored animals, are most desirable to cultivate and to raise, but from other considerations aside from that of hardihood. They handle better than light colors. You cannot pick a basket of Yellow Bellflower apples and carry them to market without their showing bruises, while the Ben Davis with the same handling, would appear perfectly fresh. Ship a load of white cattle or hogs to market, and they are badly scarred. While the real injury to the white and colored fruit, or to the white and colored cattle, would have been equal; purchasers do not see its effects so plainly manifest in the one case as the other.

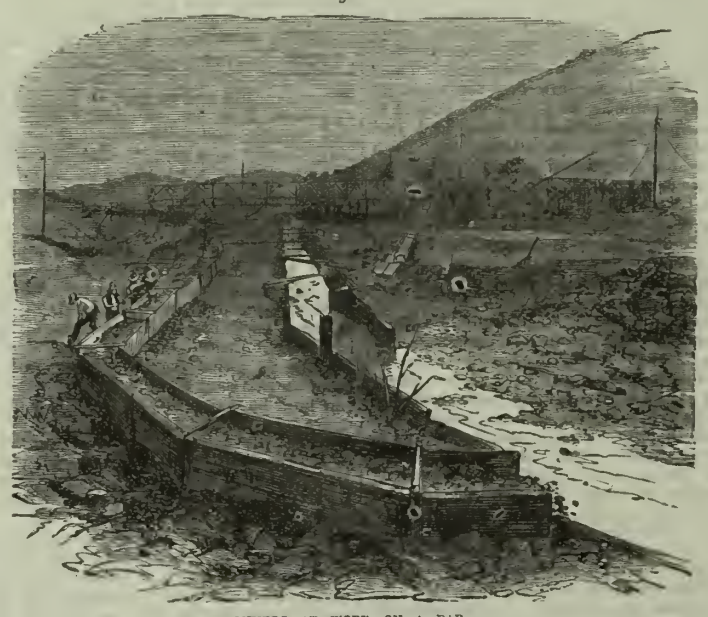
I am fully convinced that all the real objections to light colors grow out of these facts; yet, for the reasons stated above, I fnlly sanction the effort now making to supplant light colors with something darker, that will not have to be handdled so carefully in order to avoid bruising. —*W. H. Ragan. Clayton, (Ind). Prairie Farmer.*

Fig. I.



VERTICAL SECTION OF A QUARTZ MINE.

Fig. II.



MINERS AT WORK ON A BAR.

A Narrow Guage Road is being built by a local company from San Luis Obispo to the landing, on the coast, a distance of nine miles. The landing is an open roadstead, or little better, when passengers have to be taken ashore in small boats and hoisted out, and it is quite difficult to load or nnload small vessels. If the harbor were improved so that it would be safe, the railroad would be of much more benefit than it is likely to be. But perhaps the residents think if the road is built first, the harbor will be remedied afterward. The conntry back of San Luis Obispo is used mainly for sheep and cattle ranges, farms being comparatively few and far between.

One of the Great Industries of the Pacific Coast.

While recognizing the fact that the agricultural resources of California are apparently uulimited, and that from them the majority of the people of the State gain their daily bread, and that the agricnltural products of the State far exceed the total yield of the miues; still a large amount of wealth will continne to be drawn from the earth in the way of gold, silver and the less precious metals.

During the past year the Pacific Coast mines have produced in solid bullion the enormous snm of $62,236,914, of which California alone is credited with $19,049,098. The product of the year shows an increase over that of 1871 of $3,952,884. Does not this prove material progress and advancement, and augur well for the future? The history of the past few years has been a history of snccessive advances each more marked than the last, and we have no reason to snppose that this progress will be stayed.

It was not many years ago when the hardy pioneers who first braved the dangers of the plains and rugged mountaius looked down upon a field magnificent, but wild and unexplored. Could their visions of the fntnre of the lands upon which they looked, golden as they were, have been half as bright as the realization has proved to be? Could it have occnrred to them that the placid streams on which they gazed with wondering eyes, would be tnrned aside and their beds laid bare by men in search of gold; that the magnificent towering mountains and broad hills would be compelled to disgorge their hidden treasures in countless millions; that the deep eañons throngh which fretful streams burst their way would be pierced by the bare-armed miner in his search for polished gold in the hidden beds of ancient rivers? If these thoughts shonld have passed through the minds of those brave men, it is impossible, we say, that they could have predicted half of what has come to pass.

If we look back upon the struggles of the early pioneers and mark the steps they made, we can but wonder at the energy and industry displayed, even under the most powerful incentive of industry—gold. True, mining enterprises in those days were of a rude and temporary character, and little science was used in the processes then in vogue for the extraction of the precions metals, but we owe them much, for we of late years have profited by their hard-earned experience, for which, to tell the truth, we give them less credit than they deserve.

The miuing iudustry creates commerce, helps mannfacturers, makes people progressive, assists the national finances and makes the country prosperous and powerful. England's example is one for us to follow in this matter; her mines have increased her wealth and importance and created mannfactnres and commerce. Russia and Germany both owe much to their mines, and fully appreciate the fact. We on the Pacific coast know the importance of this industry better than those in other States, and recoguizing it, endeavor to foster this particular branch in as great a degree as possible.

The two ents shown on this page are typical of the mining interest on the Pacific slope. By glancing at them and comparing the reality of our operations as they now are, we can realize the stride taken in the past twenty years.

Fig. 1, we will remark for the benefit of such readers as may be unacquainted with snch operations, represents an ideal section of a quartz mine. The vein is shown upon the left, growing wider, as it increases in depth from the surface. A shaft bas been sunk, which cuts the vein near the surface. A tunnel has been driven into the hill to intersect this shaft, and just below the intersection a drift has been run from the shaft to the vein, where the work of taking out rock has been commenced. That portion of the shaft below the tunnel is called a winze, from near the bottom of which the miners are seen running another drift, or "gallery" (as such a work is usually called,) to strike the vein at a lower depth.

Fig. 2 represents miners at work npon a "bar" npon the bank of a river. Flumes have been laid from a point up the river, whence the water can be easily taken ont, and as the gravel is thrown in and washed, the finme is gradually moved further and further from the river until the bar is "worked out.

Rye originally came from Siberia.
The citron is a native of Greece.

Useful Information.

Relative Weights of the Sexes.

Somebody who has been "studying our weights" reports that, upon the average, boys, at birth, weigh a little more and girls a little less than six pounds and a half. For the first twelve years the two sexes continue nearly equal in weight, but beyond that time males acquire a decided preponderance. Thus, young men of twenty average one hundred and forty-three pounds each, while young women of twenty average one hundred and twenyt pounds. Men reach their average bulk at about thirty-five, when their average is about one hundred and fifty-two pounds; bnt women slowly increase in weight until fifty, when their average is about one hundred and twenty-nine pounds. Taking men and women together, their weight, at fnll growth, averages about twenty times as heavy as they were on the first day of their existence. Men range from one hundred and eight to two hundred and twenty ponnds (the Tichborne claimant weighs about three hundred and sixty pounds) and women from eighty-eight to two hundred and seven ponnds. The actnal weight of human nature, taking the average of all ages and conditions—nobles, clergy, tinkers, tailors, maidens, boys, girls and babies, all included—is very nearly one hnndred pounds. These figures are given in avoirdupois weight; but the advocates of the superiority of women might make a nice point by introducing the rule that women be weighed by Troy weight—like other jewels—and men by avoirdupois. The figures would then stand—yonng men of twenty, one hundred and forty-three pounds each; young women of twenty, one hundred and sixty pounds, and so on.

Danger from Matches Diminished.—The danger from the use of matches arises from the fact that the head, or a portion containig the head of the match breaks off in the act of taking fire, falls upon the dress, and sets it in a blaze. But it is because the match when drawn across a rough surface in order to ignite it is always drawn toward the body, that the broken, blazing head takes that direction and so falls upon the dress. Probably ninety-nine persons in a hundred, when lighting a match, pull it towards the body, and not from it. The reason undoubtedly is, that the motion towards the body is from our anatomical structure, a pulling motion, which is stronger, and therefore easier than a motion from the body, which is a pushing motion. But whatever the cause, the fact is that most people in lighting matches, pull them towards the body; whereas, if they pulled them from the body, the head of the match, if it broke off, would almost always take the same direction from the body and the dress. We owe this to the observation of a friend, who once set his night gown on fire with a match drawn towards the body, and who was thus led to study the philosophy of the subject. He teaches his children religiously, to draw matches in a direction from the body; and if this rule were universally adopted, many useful lives would be saved every year. The suggestion is so obvious; so simple, and so truthful, that it ought to be published everywhere, where people who read can see it.

Zopissa.—An English officer has discovered the means of circumventing time in a transparent varnish which he calls Zopissa. It is used on exposed surfaces, filling the pores, making a surface so close that no water can penetrate it. It is also remarkably insensible to heat, asbestos being less indestructible. As a varnish it equals shellac, copal, gum or pumice stone. In addition it is an excellent cement, uniting porcelain glass, building stone, and iron, while it unites wood, and is delicate enough to seal an envelope. The *Art Journal* thinks this is the substance with which the ancient Egyptians used to embalm their dead and preserve their works of art. It is a fact that, while the frescoes of Rome are becoming dim, the Egyptian mural paintings are fresh and pure. The paintings of Egypt have been exposed to a gas jet, but without any evil effects. If Zopissa even approaches this quality of endurance, which we have hitherto conceded to have been one of the "lost arts," its value will be unmistakable.

Petroleum for Boots.—Dr. Van der Weyde tells us petroleum is decidedly very injurions to leather; it shrinks the leather, so that boots dressed with it become finally so small that you can no more wear them. Leather pump-valves cannot be used for petroleum pumps, as they become so shrivelled up as soon not to fit any more, and canse the pumps to leak. If the manufacturers soaked only the pegs in petroleum, before putting them in, he thinks it might be beneficial.

Tea in India.—The experiment of growing tea in India is proving quite successful. In 1862 the crop was estimated at 1,000,000 pounds; in 1871, at something over 20,000,000. It is claimed that India can now compete with China in producing teas of the best quality.

A Sandpapering Machine.—The *Scientific American* thus directs to make a sandpapering machine. Use canvas belts strongly sewed together at the ends. The threads may be so tied together as to leave the face on emery side of belt perfectly smooth and level. Size the belt with a coating of thin glue and then let it dry. Hand the belt over two pulleys so that it can be easily turned. Use the best glue, of about the consistency for glueing wood; put it on hot with a brush, sifting the sand or emery on at once. Go round the belt as quickly as possible, then lay it on a smooth plank, aud roll the sand or emery into the glue as hard as possible, (an iron pulley, loose on a mandrel, is best;) then hang up the belt to dry.

Absence of Fear in Wild Animals. — Iu a letter from the Galapagos Islands the writer remarks the wonderful tameness of all the wild creatures that have hitherto been unmolested. The seals, he says, seemed to be fond of crawling under bushes, just above high-water mark, and sleeping two or three in a place. Under one bush lay a mother and her cubs, and so fearless was the old one, that when one of the officers held a piece of cracker to her nose she smelled at it as fearlessly as if she had been a pet dog. The tameness of many of the birds was also surprising, for the fingers might be put within half an inch of little yellow-birds, and within six inches of mocking-birds.—*Scribner's.*

The Sexes.—There are more males than females born by 4 per cent. At the age of 20 there are more females than males. At the age of 40 the preponderance is again on the other side, and there are more males than females. At 70 the sexes are again even. Between 70 and 100 years there are more women than men, or an excess of 5 per cent. The mortality of woman is greatest between the ages of 20 and 40. After 40 years of age the probabilities of longevity, as is shown, are far greater for females than for males.—*Phrenological Journal.*

Eggs in Case of Trouble.—Eggs are useful for many purposes besides food and for hatching. If you get a fish bone in your throat, and sticking fast there, swallow an egg raw and it will be almost sure to carry down a bone easily and certainly. There is another fact touching eggs which will be well to remember. When, as sometimes by accident, corrosive sublimate is swallowed, the white of one or two eggs will neutralize the poison, and change the effect to that of a dose of calomel.

Street Making in London.—During last year two hundred and twenty-six new streets have been opened in London, with an aggregate length of thirty-eight and a half miles. During the past ten years one hundred and fifty thousand houses have been built in Loudon, and new streets opened involving a length of six hundred and thirty-five miles. As large a number of houses are uow built in London, annually, as are comprised in the entire city of San Francisco.

The Oil Fields Comparatively Exhaustless.—It appears that the first oil field around Titusville, is again coming into prominence. Territory that was long since abandoned and thought to be worthless, promises to become as prolific as any iu the whole oil region. Several wells recently put down in this territory flowed from 100 to 500 bbls. per day, and promise to maintain a yield equal to if not larger than those in the Butler district.

"Adam's Apple," so called, is an enlarged section of the trachea or windwipe. It is larger in men than in women, and it is possible that the gruffuess of the voice may bear some relation to that development. The name is said to have been given because Eve ate the apple and Adam swallowed the core, which stuck in his throat. But as food does not go down that pipe at all, we may presume that it is not the cause of it.

To Clean Gold Chains.—Put the chain iu a small glass bottle with warm water, a little tooth powder and some soap. Cork the bottle and shake it for a minute violently. The friction against the glass polishes the gold, and the soap and chalk extracts every particle of grease and dirt from the interstices of a chain of the most intricate pattern; rinse it in clear cold water, wipe with a towel, and the polish will surprise you.

Smokeless Powder. — Smokeless gunpowder is now manufactured in England named after the inventor, Schultze's Wood-Powder. It can be made chcaply; there is less danger in its manufacture, and gives more penetration than our black gunpowder. Such, at least, is the statement. We have been unable to learn whether it has been introduced into the United States.

A Good trade is always a comfortable companion to travel with, a something that a man can fall back upon in the time of ueed, and yet it does not preclude him from entering upon some profession, if his iuclinations or genius develope the proper capacity. In fact, our most successful business men iu almost every capacity are from the workshops and farms.

Fly Poison Paper is usually made by impregnating common paper with a solution of equal parts of sugar and arseniate of soda.

Good Health.

A Chapter on Eyes.

The eyes feel a great deal worse *directly* after the evening lamps are lighted, and after rising in the morning. At these times they need to become used to the change of light by degrees, and it is very injurious to use them in reading, sewing or writing, or in anything which requires close attention, until they have become accustomed to the various lights of the morning and the evening. Then warm water—*quite warm water*—is very much better for them than cold water. Never use anything else if you can help yourself, and when your eyes feel strained and overworked, take a cup of very hot water, and apply it with a handkerchief or a sponge, and see for yourselves how soothing and beneficial are its effects. It is very essential also to use the weakest or highest numbered glasses when distinct vision, at a little distance, first begins to fail.

Dr. Williams, in his valuable little book entitled "Diseases of the Eye," says that when the symptoms of loss of adaptive power begin to be felt, the eyes should be aided by convex glasses of sufficient power to compensate for the deficiency; otherwise they are fatigued by futile efforts, aud yet more serious disability may result. It is useless to postpone glasses in the hope that the necessity for resorting to them may be overcome. But many persous make a great mistake in procuring glasses of too strong a magnifying tendency, and thus accustom their eyes to it, and when they fail still more, as old age advances, are forced to adopt those of still greater powers. By doing this they weaken their vision too much, while they should do all in their power to strengthen it. As soon as a blur comes before the eyes, or they begin to ache or feel badly, put the sewing, book or pen *directly down*, and rest the eyes for at least fifteen minutes or half an hour. This is an imperative duty if you desire to keep your eyesight, and it is almost, if not quite, as important to you as your tongue, and much more so than your ears.

The sight in thousands of eyes has been sacrificed by over work, for the power of sight is easily injured when the physical system is prostrated by illness, and many mothers have done their eyes serious injury by endeavoring to read, write or sew when recovering from confinement. They know that many stitches need attending to in the family clothing, and with weak heads and eyes, they undertake to do a little mending, which may prove disastrous to them. We delight in well-mended apparel, but do let me beg of you, mothers, not to try your eyes with darning stockings, shirts, etc., while you are still prostrated on a bed or couch, or kept a prisoner in a rocking chair.

Reading while lying down will always weary and injure the eyes, and is frequently a very serious cause of weak eyes.

Near-sightedness is common among young children, and many parents are unwilling that they should wear glasses on account of their youth; yet it is a great loss to them to go on, year after year, without ever obtaining a distinct, clear view of anything which is not close before their eyes. They lose the beauty of a distant landscape, and are debarred from much enjoyment, and it is far better to allow them to use glasses at ten years old, than to wait until old age comes on, before they can avail themselves of the privileges of the far-sighted.

Aching eyes are far more common than they were twenty years ago, and for the benefit of the many who suffer from them, I give a recipe which has been of the greatest service to me, and which cannot injure any one, if simply applied to the outer lids of the eyes, and allowed to penetrate:

Two ounces of camphor water, four grains of morphine, and as much powdered borax as will dissolve in the water. Apply to the eyes half a dozen times a day, by pouring a little of it into the palm of the hand, and dipping the eye into it, or by wetting a fine linen cloth and laying it over the eyes. Label the bottle "Poison," on account of the morphine.—*Country Gentleman.*

Absorption of Tobacco.—That tobacco does lodge in the tissues is evident from the following fact. The hydropathists have among their processes one which they call the wet sheet pack. The patient is enveloped in a wet sheet, and then—over this—in blankets. By this process they claim that through the operation of the principles of endosmose and exosmose, the water of the sheet is made to enter the body, while at the same time impurities are withdrawn therefrom. Now let the habitual user of tobacco be subjected for an hour to this process. When at the expiration of that time, his envelopments are taken off, the odor of tobacco coming from his body, and from the sheet in which he has lain, will be as perceptible to every one present as though a cigar had just been smoked in the room.

Remedy for Cold in the Head.—Iuhale hartshorn through the nostrils six or eight times a minute until relief is obtained. Then after an hour or so repeat again. This remedy is used in France with good results.

A Man Without Muscles.—A faro-dealer in this city, about four years ago, was compelled to relinquish his profession by a paralysis of his right fore-finger. The nerve cell (in the spinal column) which supplied the joint had died from overwork, and the muscles of the finger gradually passed away through disuse—atrophied, the doctor called it. The dead cell in the spinal marrow in some way, by contact or sympathy, destroyed its neighbor, which controlled the same finger on the left hand. The atrophy extended over both hands, up the arms to the chest, shoulders and neck. At the present time there is not a muscle in those portions of the man's body. The arms hang useless and absolutely fleshless—mere skin and bone. The intercostal muscles are gone, and the man can make no respiratory movements requiring their actions; the neck—œsophagus, trachea, and spinal column clad in skin, and that is all, the processes of the latter standing out as plainly as in a skeleton. The head unsupported, hangs down on the chest, as if it were merely tied on. By a movement of the loins the man can throw his head over so that it will fall resting on his shoulders and back, but otherwise than thus, mechanically, he cannot control its motion. What parts the disease will next attack is a question with the physicians at Bellevue, where the case was shown yesterday, but the result is hardly doubtful. Breathing is done now wholly by the diaphragm, and must cease if that be attacked.—*N. Y. Ex.*

The "Bleeding Family."—A singular story is told by a Milbridge, Maine, physician, of Rufus Mitchell, aged 30, who recently bled to death from a slight cut: "He was one of those unfortunate men who bleed from the smallest scratch of the skin, and many times he has lain and bled till it seemed that the blood had all run out, and then would gradually recover. This time the cut was quite large and he lived but a few hours. There is something remarkable about this family, who are here termed as belonging to the bleeding family. None but the males bleed, and they are the sons of the females of the same family. For instance this man has left children; none of them will bleed, but if the girls should have boys in their families, they will be of the bleeding kind, but the boys are themselves free and their families will be the same. I cannot explain this. I have practiced in the family more than twenty years. During this time a number of them have died from this cause, and others have bled often dangerously. They seem to be as careless about edged tools as though they were like other people.

The Croup.—When there is indications of an immediate attack of croup, or rather when the symptoms indicate that it is already at work, grease the breast thoroughly with goose-grease, and lay on it a double thickness of flannel. If the strangling comes on suddenly, mix Scotch snuff and lard together, put on a piece of brown paper, and apply instantly to the breast, rubbing the throat meanwhile with hot grease, or lard, or oil. Or you can do this: Dip a flannel in water, as hot as it can be borne, lay it on the breast, take salt butter, spread on a piece of brown paper, and apply to the breast and throat. Salty butter rubbed on the throat and chest, just before going to bed, is a most exeellent remedy for sore throat; two or three applications being enough to effect a cure.

Coffee. — Dr. Hahnemann, the author of homeopathy, in an essay on the effects of coffee, states that it prematurely stimulates and developes sexual passion in both sexes, and brings the human body to its full or maximum maturity ten or fifteen years sooner than we should reach this period without it, which if true is really a frightful fact; for if we hasten or force hnman life ten years in the first stages, we of course shorten it that much in the later stages, and this amounts to a total loss of so much human life, from the action of coffee alone upon the organism. And now add to this, the debilitating and ennervating effects of tea, tobacco, spiritous and malt liquors, what must be the sum total of the losses? F. M. S.

Smallpox no Respector of Persons.—During the year 1872 there died of smallpox in the city of Philadelphia 2,500 persous. It was confined to two districts of the city, situated at opposite ends—the one a foul and unwholesome locality, where the sanitary regulations are never observed; the other inhabited by people in good circumstances, and the streets and dwellings of average Philadelphia cleanliness. Neither the filth of one nor the cleanliness of the other had any influence in preventing or increasiug the spread of the scourge. It remains now to be discussed by medical authorities, and it is to be hoped in the interest of humanity some solution will be reached.

Freckles.—For the benefit of young persons afflicted with freckles, we would inform them that powdered nitre, moistened with water, applied to the face night and morning, will soon remove all traces of them.—*Druggists' Circular.*

Remedy for Chilblains.—A writer in a Vienna medical magazine says that a concentrated solution of chloride of iron is an unfailing remedy for chilblains.

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PRINCIPAL EDITOR.....W. B. EWER, A. M.
ASSOCIATE EDITOR.....I. N. HOAG, (Sacramento.)

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SAN FRANCISCO:
Saturday, March 15, 1873.

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THE EPIZOOTY.—Word comes this Thursday morning, March 13th, to the effect that the horse epizooty is spreading to an alarming extent in Nevada. That most of the heavy mining teams are laid up with it, whilst stage and transportation lines are completely paralyzed; freight is accumulating at the depots, and all the oxen in the conntry are being bought up for transportation pnrposes.

It is a capital thing that we have the great bulk of our wheat in the ground before it reaches us to any alarming extent. If it finally reaches us here, as it has all places East of us, have your cattle, that are able to bear the yoke, brushed np and their toilets made for city life, for they will be wanted.

SILK.—We have received from Felix Gillet of Nevada, specimens of his new "cocooning shelf," used in the propagation of silk worms, a French invention and one promising to be of much importance to silk growers. Also samples of "shifting perforated paper," used also in silkworm growing. They will receive attention next week.

NEW CUCUMBERS.—We observe new cucumbers fresh and crisp, npon the market for the first time this morning, Tuesday, March 11th; they may have been earlier than this by a few days, but if so we had not noticed them. Selling at $2.50 per dozen.

COFFEE. — L. Fisher, of Rough-and-Ready Creek, has shown that coffee will grow in Tuolumne conuty. From a number of berries sent from Germany, of Morocco coffee, he planted ten seeds in April, and from five plants he gets 263 beans.

ORANGES AND LEMONS.—These fruits have been made abundant and cheap, by the arrival of large quantities from Los Angeles and other counties in the State, and from Tahiti, Sandwich Islands. Selling from $3 to $3.50 per hundred.

Beet Sugar.

We have a sample of sugar from the beet sugarie of Sacramento. We have never seen superior sugar, either from beets or cane. The crystals are large and brilliant, and the sngar is free from every impurity. The company has erected a cooper shop to ensnre regular supplies of barrels; and it is contemplated to put up a distillery, to convert its molasses into pure spirit. The syrup that remains, after the sugar is extracted from beets, is not suited to tsble uses.

This company has not made a dividend for 1872. It has levied asscssments, but it is not to be inferred that it has not made profits. Besides the permanent improvements and the new inventions it has added, it has made purchases of rich land at low prices; thus judiciously reinvesting its profits.

It is known that a war among the sugar refineries of San Francisco reduced the price of sugar and curtailed the profits of our beet sugaries. The Sacramento works saved themselves by opening a market for their sngar in the State of Nevada, without the intervention of San Francisco.

The ontlook for 1873 is full of promise. The company is planting largely. At least 1,200 acres of beets will be cropped this season for the Sacramento mill. This will yield 18,000 tons of roots and 1,400 tons of sugar. The *lowest* profit on this would be $75,000 on a capital of $200,000.

As the success of beet sugar making is now assured, it is probable that new mills will be started elswhere. Santa Clara, Stockton, Mission of San José, Antioch, Vallejo, Napa, Petaluma, Sonoma, Healdsburg, Santa Rosa, Marysville, Gilroy—each should have its sugar mill.

It is well to understand a 60-ton a day sugarie cannot be put up and worked with less capital than $100,000—besides whatever lsnd may be bought It is also well to have it understood that high-priced land should not be preferred for beet sugaries. It is wise to go a little further and buy cheaper land, that yonr stock may not be burdened with overweight of high-priced land, high taxation and high-priced beets.

It should also be known that there are two entirely different processes of making beet sugar. That at Alvarado, and that at Sacramento. There is a difference in the first cost and in the running expenses. Both make excellent sugar and both are under the personal direction of very able and very reliable experts. Both systems have therefore been thoroughly tested; and it will not be difficult to make reliable comparisons, for there is harmony between the two factories, with only such generous rivalry as tends to promote fair exposition. These two sugaries are an honor to our State; and their enterprising founders deserve a monument, to perpetuate the memory of their public spirit.

Our Silk Manufactures.

Steadily but surely our silk manufactures are taking rank among the profitable industries of the State. But here as in the Atlantic States the fabrics are woven from raw silks imported from other conntries. In Europe, many have amassed fortunes at the bnsiness, and why may we not here as well? But the manufacture of silk is one thing, the production of silk quite another. Its mannfacture into silken goods, enriches the manufactnrer, the production of raw silk, enriches the producer never, in this country or any other.

The tea merchants of China build collosal fortunes, individual producers of tea, never. Grain merchants in California, and elsewhere, are made rich, the producers of grain seldom, if ever. We should not, however, neglect the production of these commodities even though they may not enrich us, and though the middleman steps in and with the power of capital wrests the lion's share of all the profits.

Grow grain, grow tea, grow silk; but carefully examine from whence the profit is to come over cost of labor required to produce them.

FLORAL CHROMOS.—We have received from Briggs and Bro., Rochester, N. Y., copies of two beantiful, floral chromos, which we hang up in our office, that those who call upon us may enjoy the pleasure of their inspection, if they cannot obtain them.

Wheat Review for February.

The continued fall in the Liverpool market since the 1st of January, combined with the advance in freights, has caused the market to drop with great rapidity since the second week in January, its fall since then being almost as remarkable as its previous rise. Sixty-seven vessels carrying 2,246,359 centals, have arrived at Liverpool since the 1st of July carrying California wheat, and the knowledge that there are three hnndred more following them, and that the Black Sea ports of Russia will soon be open, have cansed the grain merchants of the United Kingdom to be less anxious to buy than they were somewhat earlier in the season. However, as there will be little wheat left in the market at the close of next month, and as freights are sure to fall there need be little fear that the market will be mnch lower than at present. On the 1st of February

Prices

Opened at a considerable reduction from those of the second week in January, and might be quoted as: Coast Wheat $1.75 to $1.85; Shipping do. $1.90 to $1.95; Milling do. $1.90 to $2. On the 6th of February, the lowest grade of Coast wheat dropped definitely to $1.60 with sales even much below that figure, while good Shipping Coast still brought $1.85. On the 11th inst. the best Coast shipping, dropped to $1.80, and on the 13th to $1.75, though extra choice parcels still brought the former figure. On the 24th inst., good Coast Shipping again bronght $1.80, which it retained till the last day of the month, when it was again quotable at not more than $1.75. In this it is observable that the higher grades of Coast Wheat have been much more in favor for shipping purposes at the close of the season than at the beginning. The month began with Shipping, quotable at $1.90 to $1.95, which it retained till the 5th of February, when best qnality fell 2½ cents, not being worth more than $1.92½. On the 12th it receded to $1.85 to $1.90, and on the 13th the highest price quotable was $1.87½. Recovering tone again on the 17th, choice Shipping was quoted at $1.90, and retained that price till the 21st, but inferior Shipping dropped down to $1.80 on the 20th. On the 24th the highest price paid was $1.85. On the 27th inst., it receded to $1.70 to $1.80, at which price the month closed. Milling opened on the 1st of February, at $1.90 to $2, receded to $1.90 to $1.97½ on the 6th; to $1.90 to $1.92½ on the 8th; to $1.85 to $1.90 on the 12th; and to $1.75 to $1.80 on the 27th. During the month, the fall in Coast wheat has been 17½ cents, that in Shipping 20 cents, and that in milling 22½ cents.

The Liverpool Market

Has had a downward tendency since the beginning of the year, being then quotable at $3.07 to $3.11, according to telegraphic advices by the Associated Press agency. The same authority quoted it at $2.98 to $3.01 on the 1st of February, and at $2.81 to $2.87 on the 28th of Feb ruray, for California wheat. This shows a falling off of 25 cents from the beginning of the year, and of 15½ cents from the 1st of February.

Receipts of Wheat

For the month have hardly equalled two-thirds of those for January, a sure sign that our export snrplus is being rapidly exhausted. They have amounted to a total of 967,811 centals, of which 3,096 have been brought from Oregon. In the city 727,598 centals have been received including 12,139 centals from coast ports and 715,459 from the interior. At Oakland wharf 119,600 centals or 598 car loads, less than 50 per cent. of the quantity during January has been received from the interior. According to the shipments 117,517 centals have been received at Vallejo. Of Flour, the equivalent of 84,576 quarter sacks have been received, of which 43,713 have come from the interior and the balance from Oregon. The total quantity of California wheat and flour received at San Francisco, Oakland and Vallejo during the mon th of February, when reduced to wheat, equals 998,490 centals. This leaves 3,345,856 centals of the year's crop, less what has been used in the interior for local pnrposes and for seed, to come forward.

Exports of Wheat

For the month of February have aggregated 31 cargoes and a few shipments, equivalent to 907,363 centals, and worth $1,797,540. Of these 23 cargoes, equivalent to 631,571 centals, worth $1,253,870, were shipped from San Francisco, 5, equivalent to 158,275 centals and worth $313,170, from Oakland Wharf, and 3, eqnivalent to 117,517 centals and worth $230,500 from Vallejo. The exports of Flour in February amounted to 18,622 barrels, so that the total exports of Wheat and Flour for the month just closed expressed in Wheat amounted to 963,229 centals. This leaves at the end of the month a balance of 1,978,166 centals for export.

The Mohair Wool Question.

Mr. Gilmore, of El Dorado, has handed us for publication, the following letter which fully explains itself:

BRADFORD, England.
Jannary 22d, 1873.

N. GILMORE ESQ: *Dear Sir:*—M. J. Kelsall & Kemp, of Rochedale, have handed to my valued friends, Sir Titus Sslt, Barry, Sons & Co., of Soltaire, a sample of mohair with a card etc., of yours, reqnesting Messrs. Salt, as interested in the article, to furnish any information they could.

At the reqnest of Messrs. Salts I have the pleasnre to say that the sample retains the character of Turkish mohair (or goat's wool) better than any I have seen before that has been prodnced out of Asia Minor, and I have no hesitation in saying, the cnltivation of your scheme will pay those well who go into the enterprise, for there is a demand for any qnantity. I myself, in connection with my cousin, John R. Thomson, of Constantinople, have imported three-fourths of the entire Turkish clip for the last few years, having taken 18,000 bales of 170 lbs. each last year. I may add also that my cousin has executed orders for live goats to be sent to the Cape of Good Hope, and therefore claim to have a good knowledge of the trade.

I regret to be unable to valne California goat's wool from the small sample, because I feel that you conld hardly nndertake to snpply a bulk like it—if yon could I wonld be able to place it at 3s. per lb. readily. I can, however, tell yon what is the best plan for you to do in order to arrive at a proper estimate of the value of your production, and wonld strongly recommend yon to try it, viz:

Ship a bale or two—more the better—of the purest (uncrossed breed) that would fairly represent the best yon produce, also sample bales of the next grade and so on, and I will nndertake to return you fnll value obtainable in this the best market. Yon might either ship them from San Francisco, or send them per railroad to New York (if not too expensive) and on receipt I would write or telegraph valnes. It will not, however, pay to send anything overland but the very best, as the drop in value between one sort and another is very great, for example, while long Turkish fleece is selling at 3s. to 3s. 3d. per lb., the second, greys and inferiors will not average more than 2s. per lb., and out of every 100 lbs. of white wool at least 10 ponnds or 10 per cent. consists of the inferiors.

If I was to write for a week I could not give you (practically) more information in the absence of the wool; bnt if yon (or yonr Association) will adopt my suggestion by sending representative parcels I will send you the fullest information I can. To-morrow Mr. Thomson, of Constantinople, is dne in England and on his arrival at Bradford, I will show him yonr documents, and fully discuss the matter with him. I incline to think he bonght the goats (for Mr. Dhiel, of Ohio or Iowa) that have fonnd their way to your county, but I may be wrong.

For any information about me I wonld refer you to the Pacific Mills Co., Lawrence, Mass., or to Mr. Hazard, of the Peace Dale Mannfactnring Co., Providence, to whom I am personally known.

Hoping you may succeed in your enterprise, and that I may hear from yon again I remain
Yours truly, JNO. CRABTREE.

Mr. Gilmore writes ns that he is now shearing, and will forward samples of wool as requested. It is to be hoped that the returns from said samples may be satisfactory to the Angora goat growers of California.

PRECOCIOUS GRAIN.—Mr. Yager, of San José, sends to this office some specimens of wheat, barley and oats, now growing on his place. The oats are some five feet high, fully headed ont; the wheat is about the same hight, the heads all beantifully filled with large, plnmp kernels, and the barley is qnite as forward and flourishing. There are hundreds of acres in Santa Clara Valley, on which the grain is nearly as far advanced as this of Mr. Yager's, bnt the story would appear marvellons to a Minnesotian or a New Englander.—*Call.*

MARY MOUNTAIN is qnite amnsed at our introdnction of her name to the public in a recent issue of the RURAL, as Mary Jane Locke, she says, "Now, why *Jane?* If my "truly" name could not be found, why not "Jemima," or "Jerusalem?" More distingnished you know. What is Fame? To be beheaded in battle and have yonr name printed wrong in the list of honored dead!" Mrs. Mary Jameson Locke, we "accept your apology;" but still think Jane the sweetest name of the two.

SAN JOSE ORANGES.—We have received samples of fine oranges, raised by C. Fieldsted, on his ranch situated in a sheltered nook at the base of the Coast Range, three miles east of San José. A 6-inch banana tree bought at Woodward's Gardens, San Francisco, last March, has already attained 5 feet in hight on his grounds, and appears "hearty." Mr. F. desires more capital to fnrther improve his place of 156 acres, or will sell it.

HORTICULTURE.

Planting.

It is best, when there is room enough for it, that fruit trees should be allowed a separate piece of ground, uear the house. They can be better cultivated there; their fruits can be better cared for and collected; beside, except when loaded with fruit, they are most unornamental trees, nor do they afford so good shade as some others.

Most people wish to have an orchard in grass. It is certainly prettier, but it is doubtless injurious to young trees, and *almost* sure to produce disease and death. When trees in a nursery are to be planted in a sod lot, we would with a plow turn down the sod from one end of the piece to the other, about three feet on each side of the row, for planting. This gives the roots sun and air, and does not sacrifice the whole ground. These spaces of six feet in width should be plowed once or twice during the summer, and kept free from weeds and grass. Young trees require, for their well-doing, cultivation and care. Most people either do not know this, or will not regard it; but those who do will find their returns, in looking at fine trees and eating fine fruit, in half the time of the others.

The best young orchards are now often cultivated with root crops (or other green crops),—if in alfalfa or other crops, they are plowed under upon going to seed. It is well to plant peach, apricots, nectarine or almond trees alternately with apples or pears, for they mature soon, and are apt to perish or decay before the others require the room. We mean—plant the orchard as it is intended to stand at once, and then put between every two trees a peach or an apricot, etc. Cultivators are beginning to find that good orchards are as profitable and pleasant an investment as they can make.

It is of the utmost consequence, when planting, that good trees be procured; the difference in the expense between good and poor ones is nothing, in comparison with the disappointment that comes from waiting three or four years, and then finding but a poor or a common fruit, in place of the finer sorts which all should take care to get. Whenever it can be done, trees should be got near home; a long transportation is a great check.

Ornamental planting is almost another thing, and can be spoken of with less definiteness. Nothing adds more to the beauty and comfort of a dwelling than fine shade trees; and hardly anything requires more care or taste than their disposition. It is not desirable to shut out the view of or from the house, and yet you want enough for shade, seclusion, protection and elegance. Evergreens are well when judiciously mixed in with the rest, but we do not want too many of them.

Renovating Orchards.

When the least symptom of failure or decay in a bearing orchard is perceived, the ground should have a good top dressing of manure, and of marl, or mild lime, in alternate years. It is folly to suppose that so strong growing a tree, as the apple for instance, or indeed most other fruit trees, particularly if planted rather thickly, (which seems to be the general rule in California), will not, after a few heavy crops of fruit, (and very little if any thinning seems ever resorted to), exhaust the soil of much of its proper food. If we desire our trees to continue in a healthy bearing state, we should, therefore, manure them as regularly as any other crop where the ground needs it, unless a rotation of grain and grass crops is practiced (and the remnants plowed in) which, of course, in the orchard cannot be so well done as elsewhere. Orchards will amply repay the expense of proper manures.

We subject our orchards to bear too excessive crops, by which they exhaust most of the organizable matter laid up by the trees, when some of the fruit is thinned out in a young state, leaving only a moderate crop; the apple, like other fruit trees, will bear annually more regular crops, as it will also if the soil is kept in high condition. Fallow crops are the best for orchards—potatoes, vines, buckwheat, roots, and the like. An occasional crop of alfalfa or grain may be taken; although alfalfa is rather too coarse-rooted, and exhausting for a young orchard. When this, or grass, is necessarily grown among young trees for a year or two, a circle of three feet diameter should be kept loose by digging every season about the stem of each tree. We hardly need state that it is an indispensable requisite, in all young orchards especially, to keep the ground at short intervals mellow and loose by cultivation. This is much more easily done in California compared with the more Eastern States, owing to the dryness of our climate not favoring such a rank growth of weeds, as their climate does almost incessantly in the growing seasons.

Cherry Culture.

Among the early fruits of the season none are more acceptable than the cherry. As with strawberries, so with good ripe cherries, almost everybody likes them; but to grow them everywhere successfully in California is a very difficult matter. We are going to show, however, that very much depends upon skill or mode of culture. Where we find a man who has made the culture of any variety of fruit a specialty, giving his chief attention to a particular kind of fruit, experimenting for years, in a climate like ours, we are prone to believe he has learned something that everyone don't know.

With this view of the subject, we introduce to our readers the practice of Mr. Wm. C. Geiger, at his place, two and a half miles west of San José. This gentleman has made the growing of fine cherries a specialty, and has been eminently successful, and yet, the first question a person would be likely to ask on seeing his cherry trees, would be—Why don't he trim up

Fig 1. *Fig.* 2.



TRAINING THE CHERRY TREE.

his trees, and make them look like something?

All who have attempted to grow cherries in California, know how prone the trees are to make an enormous upright growth, almost destitute of side limbs, and generally producing a tree of which Fig. 1 is a type. It is common to give to cherry trees in this climate a low trunk, better to shade it from the effect of the sun's heat, but still it is common to trim to a smooth trunk from two to four feet from the ground.

The method so successfully pursued by Mr. G. is quite the reverse of this, as indicated in Fig. 2. To commence with his mode of culture, we begin with his seedling trees which he procures at one year old from Eastern nurseries, from six to eight inches in hight. These are set out, headed back and make a growth sufficient for budding in July or August a few inches from the ground. These trees at one year old from the bud, and two from the seed, are then set out where they are to stand, and now comes in the first of the peculiar treatment they are to receive.

Every bud upon the entire length of the body is allowed to grow and produce a shoot, and when these shoots or limbs—all but the upper *terminal* one—have attained a length of six or eight inches, they are checked by pinching out the terminal bud; the effect is to convert them into fruit spurs. This practice is continued up to the point where it is desired to have the tree form its top; which in Mr. G.'s practice has been from 2½ to 3 feet from the ground, though in future he will adopt 2 feet as the rule.

At this hight the side shoots may be even a foot in length, but by being frequently pinched in, are almost entirely fruit-bearing spurs. In forming the head of the tree, a similar practice is adopted, except that now as in Fig. 2. the side shoots are allowed their full length, but the one central shoot which should always be maintained in cherry trees, is checked in its upright growth when 18 inches long, by pinching the terminal bud. This has a tendency not only to cause a spreading habit in the tree, but it also causes a thorough ripening and full maturity of the wood.

The next year and the next, the same course is pursued, at any and all times pinching in the terminal buds when they have reached a length necessary for the perfect symmetry of the tree, as in Fig. 2. The rationale of this method is this, the side shoots along the trunk of the tree to its first regular limbs, serve to shade the bark from the intense heat of the sun, so that there is never a "sun scald" of the bark so injurious to all trees, both from direct cause and from the borer which always attacks the tree if at all, in these dried sun scalds.

Another excellent effect produced by the growth of these side limbs, is the strengthening of the trunk of the tree, giving it enlarged size and vigor, every leaf adding its quota to the direct growth of wood. As an offset to what may, by some be deemed an unsightly object because of the growth of these trunk limbs, we offer this, that as many as three pounds of as splendid cherries as the tree can grow, are produced upon these fruit spurs below the regular limbs or branches forming the head of the tree.

As regards the simple matter of form, we cannot even see that Fig. 1 with its smooth-trimmed, naked trunk, has a particle more of beauty about it than Fig. 2, although it has always been the fashionable cut and trim for orchard trees. When the top of the tree becomes large, these side shoots from being much shaded, naturally drop off, but leaving no large scars or wounds as where the knife is injudiciously used. Mr. G. never uses the knife in giving form to his young trees, but relies entirely upon his fingers and the pinching-in process.

We had intended to speak further of Mr. G's success in cherry culture, number of trees, best variety for general culture, home market and shipment; mode of culture pertaining to the soil, etc., but which, owing to the length of our article already, we must defer.

The Gooseberry and its Culture.

The gooseberry has always been a favorite fruit in England where most of the fine varieties originated. It is popular with all classes and in every section of the merry old land, so famous for well-kept gardens and teeming orchards. Well do we call to mind, when we were a boy, sitting under the well-filled bushes and regaling and filling ourselves with the luscious and wholesome dead ripe berries till we could eat no more, and yet sustained no ille-ffects from them. They were of all colors—red, yellow, green, white and nearly black, and of immense size, the contents of the skins almost melting in our mouth—the skins either smooth or rough, with small hairs growing on some of them. In one county in particular in England —that of Lancashire in the northwest—the inhabitants have for many years displayed so much enthusiasm in this branch of horticulture as to remind one of the celebrated "Tulip Mania," that a few centuries since attacked the phlegmatic Hollanders, and made florists of the whole nation. It is said that in the same county there are over 2,000 named varieties in cultivation, of these about 40 distinct sorts are enumerated as the best, and as containing the most desirable quality. A work is published annually in England, which is exclusively devoted to the culture of this fruit, and all English Horticultural Societies offer handsome premiums for new and valuable sorts, and improved methods of cultivation. But it is only within a few years that American cultivators have paid that attention which its value demands, and even now but little attention is given to producing new varieties or improving the old. And yet there is no small fruit that is hardier, more productive or easier of cultivation where the soil is suitable and the right sorts have been selected. There are, however, unfortunately, but very few localities where the fine English sorts are not subject to mildew (and California seems no more exempt from it) a disease which has always proved a most serious obstacle to success in their culture —and for which no effectual remedy has yet been discovered—though undoubtedly mulching with salted hay or straw, as recommended by the fruit books and some practical men, has occasionally insured a crop.

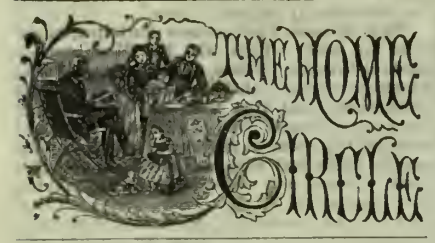
What we most want are new varieties, raised from the seed, which like the Houghton—a seedling raised in Salem, Mass., from a wild American species—shall be adapted to our soil and climate, and free from the mildew, and there is no reason why we should not, and speedily too, possess American seedlings that may be cultivated with all the ease of other fruits. Some new sorts from the Houghton have been raised in the East—one by Chas. Downing of Newburgh, N. Y., is thought to be superior to the the original in quality and size. Horticultural writers of note have for several years been urging amateurs and others to experiment in raising new sorts from the seed, and we hope that some of our enterprising California pomologists will devote their attention to a subject of so much importance. It certainly seems to us probable that, as the climate and soil of California agrees with so many and such noble fruits, she seems more likely than any other region to succeed with new varieties of the gooseberry.

Horticultural Societies.

Societies of this kind, if the members are zealous, active and working men, and are willing to spare a few hours monthly, (weekly would be better) for the cause of horticultural improvement, are capable of infinite good; there is no measuring it, and their opportunity and capacity will increase yearly. To many gardeners, professional as well as amateur, some intercourse of this kind is almost a necessity; and to nearly every one it is very agreeable. It should possess no narrow feeling, but should be open to the citizens, whether naturalized or not, of all nations. And no one should regard it as not intended for the good of all—for the benefit of the whole cause of horticulture. It should not be regarded, as it seems to be by some, in the light of a *clique*, but in the view of a universal beneficence. To a number of gardeners and flower and fruit lovers such meetings wherever they exist or take place, afford great satisfaction, with much likelihood of future good. The choicest flowers and the best and most delicious fruits should be collected throughout the year, and appear on their tables; and as bees go where there are sweets, so go we all where there are fine strawberries, pears, peaches grapes, apples, etc. While one is glorifying a little, it is well enough to say, that there are in these societies about the best people there are, and we hope that these will grow better, and bring in their friends that they may be improved. These societies in California now show a fair array of members, (not a quarter though of what there should be) and it is to be hoped they may be in time increased indefinitely in number, if not in correspondence. We may, perhaps, venture to say that this latter part of these associations are apt, we think, to undervalue their success. The things or productions that may be common in other States or places, are likely to be highly valued here; and many persons hesitate about forwarding abroad some one variety of seeds or cuttings, thinking it of too little consequence. It may sometimes occur that there might be seeds for distribution which would be gladly given to the friends of correspondiug members residing in California. We might suggest too, that we ask more of them than we give. We are told from a high source that it is better to give than to receive. Grafts of many valuable things can be sent to various quarters from here. It is very desirable, for the advancement of horticulture in California and in this vicinity, that these societies should be put upon a firm and respectable footing. By and by might come a ground somewhere for a fruit, plant, vegetable and flower garden. But this is, probably, looking rather too far ahead. Then what can be done? Can the public be interested in these things sufficiently to get them to act? Public donations, lately, seem, happily, among the wealthy men to be growing apace. We shall want, it is to be hoped, soon, many things for these societies. Have we not rich men with us who can *endow* such laudable enterprises. That not occurring, if somebody would but die and leave for some one or more of these societies fifty or a hundred thousand dollars. How to interest the public, that is the question. Lectures might help the matter a little, but our exhibitions will do much, where with the objects exhibited and addresses from able men—altogether there may arise annually, if not continually, a feast of reason and a flow of soul.

To wind up, these societies are doing great good, and in their exhibitions in different parts of the State last year, brought to public notice many valuable fruits and new flowers, and introduced new and valuable seeds and grafts, which in a short time will return them sevenfold.

We would like to see all kinds of members of these societies afford three or four hours—say every Saturday morning from 10 to 1—to perform all this business we have pointed out. The advance in all the objects of horticulturists would be much furthered thereby, and the measure would subserve the interests of all concerned.



Live--Learn—Labor—Love.

Live in the light of the Truth that hath found thee,
Live as the Ocean lives, sparkling and broad;
Live for the thousands who perish around thee,
Live for thy country, Eternity, God;
Live in the Past, with its eloquent history;
Live in the Present—it soon will have fled;
Live for the future, enshrouded in mystery;
Live while you live, ere you sleep with the dead.

Learn to look up when temptations assail thee,
Learn to do right, whosoever may laugh;
Learn to distrust the delights that regale thee,
Learn from Guilt's chalice, oh, never to quaff!
Learn to rebuke each unhallowed emotion,
Learn to thyself to be loyal and just;
Learn to make Duty thy shrine of devotion,
Learn not in man, but thy Savior to trust.

Labor for all that is highest and purest,
Labor for that which is wisest and best;
Labor for Him who of friends is the surest,
Labor till Death brings thy guerdon of rest;
Labor in earnest, thy work is around thee,
Labor unweariedly on to the end;
Labor is worship, and angels surround thee,
Labor to cheer thee and fly to defend.

Love 'mid aspersion, neglect and disaster,
Love in the sunshine, but more in the storm;
Love above all thine Exemplar and Master,
Love Him with constancy, tender and warm;
Love not of Sorrow her vesture to borrow,
Love in the dayspring of Heaven to roam;
Love not Self or Sin, and in Earth's glad to-morrow,
Love everlasting shall welcome thee home.

—*Country Gent.*

Reasoning of a Hare.

The following circumstance was related by a respectable farmer as happening within his own observation; and in illustration of its truth it may be proper to remark, that in the country where it happened—in Cornwall—the hills, which are steep, rise so abruptly and near to each other, that whatever passes on the side of one may be easily discerned on the other. His attention was first drawn to a hare, which he perceived down a slope, close to the hedge of a field of turnips, nd soon afterwards he perceived that in pursuit of her were a couple of dogs. As these dogs entered the field he saw that the hare stopped for a moment and lifted her ears. The pursuers pressed on, but when they had come within little more than a gun-shot of their hoped-for prey, the hare stopped, and then ran back for some distance along its former track, when by a sudden spring it threw itself on one side into the midst of the turnips and there remained crouched and still. The dogs passed onward in their course at a rapid rate; and as soon as they had passed forward on its track, with another bound the hare sprang back to the place it had quitted, and ran upward along the course by which it had come down, with the evident intention of confounding together its upward and downward course. By this time the dogs had come to the lower extent to which the hare had proceeded, and there they stopped, as not knowing what further course to take. It was thus the persecuted creature secured its own safety; and my informant was too generous to help them out of the difficulty.—*Land and Water.*

A Woman's Club.

There is a "Woman's Club" in Ohio which meets regularly to discuss practical questions applicable to farm life, each meeting being held at the house of a member. Questions are selected at each meeting as the regular topic of discussion at the succeeding one. Here are some of them: 1st. The making and baking of the different varieties of bread. 2d. Cake in all its varieties. 3d. House cleaning, *i. e.*, how to clean house with the least confusion, the least destruction of property, and the greatest expedition. 4th. Can practical housekeeping be reduced to a perfect system. 5th. How should cows be fed and watered, and how should milk be taken care of to make the best quality of butter. 6th. What is the best method of canning fruit. 7th. The making of pastry and baking of pies. 8th. How to make and keep pickles, both sour and sweet. A variety of recipes have been handed the standing committee, accepted by the society and placed upon record. The society is in a highly prosperous condition.

It is not what we have or what we have not which adds to or subtracts from our felicity. It is the longing for more than we have, the envying of those who possess more, and the wish to appear in the world of more consequence than we really are, which destroy our peace of mind, and eventually lead to ruin.

That was a delicate compliment given by a ragged newsboy to the pretty girl who bought a paper of him. "Poor little fellow," said she, "ain't you very cold?" "I was, ma'am, before you passed," he replied.

On Marriage—To Young Men.

The following views on this subject are from the pen of a popular newspaper writer of the day:

The true girl has to be sought for. She does not parade herself as show goods. She is not fashionable. Generally she is not rich. But O! what a heart she has when you find her! So large and pure and womanly! When you see it you wonder if those showy things outside are really women. If you gain her love, your two thousand are a million. She'll not ask you for a carriage or a first-class house. She'll wear simple dresses, and turn them when necessary, with no vulgar magnificent to frown upon her economy. She'll keep everything neat and nice in your sky-parlor, and give you such a welcome when you come home that you'll think your parlor higher than ever. She'll entertain true friends on a dollar, and astonish you with the new thought, how very little happiness depends on money! She'll make you love home (if you don't you're a bore), and teach you how to pity, while you scorn, a poor fashionable society that thinks itself rich, and vainly tries to think itself happy. Now, do not, I pray you, say any more, "I can't afford to marry." Go, find the true woman, and you can! Throw away that cigar, burn up that switch cane, be sensible yourself, and seek your wife in a sensible way.

The Life Beyond.—To me the life beyond is tangible. It is not peopled with ghosts and spectres, shadows and outlines of being, but with persons and forms palpable to the apprehension. Its multitudes are veritable, its society natural, its language audible, its companionship real, its loves distinct, its activities energetic, its life intelligent, its glory discernible. Its union is not that of sameness, but of variety brought into harmony by the great law of love; like notes, which, in themselves distinct and different, make, when combined, sweet music. Death will not level and annul those countless differences of mind and heart which make us individual here. Heaven, in all its mode and manner of expression, will abound in personality. There will be choice and preference, and degrees of affinity there. Each intellect will keep its natural bliss; each heart its elections. Groups there will be, and circles; faces known and unknown will pass us; acquaintance will thrive on intercourse, and love deepen with knowledge; and the great underlying laws of mind and heart prevail and dominate as they do here, save in this; that sin, and all the repellance and antagonism which it breeds will be unknown, and holiness supply in perfect measure the opportunity and bond of brotherhood.—*Rev. W. H. H. Murray.*

A Word About Dancing.—Real dancing is the result of joy. It is just as natural for people to dance as it is for them to sing. But this kind of dancing is involuntary, and it is accompanied with feelings of delight. Amusements are harmless so long as they are innocent. But the moment that they cease to be spontaneous, they become dangerous. Ordinary base-ball is totally harmless until the players meet in convention, and rob the game of its real merit.

When amusements are reduced to science, and when men try to put them on a level with legitimate industry, they are dangerous. Contrast old fashioned ball-players with the roughs and loafers who meet in cities these later years.

No game of ball ever was, or ever will be worth twenty miles of railroad travel, much less a business convention.

These remarks are equally true of other amusements. The spontaneous parlor dance, or the graceful evolutions of young people on the village green, are a rebuke to the midnight shuffles of the ball room. Any amusement that destroys the best portion of two days and two nights is neither innocent nor legitimate.

Acts of Love.—Each one of a thousand acts of love costs very little by itself, and yet, when viewed all together, who can estimate their value? What is it that secures for one the name of a kind neighbor? Not the doing of half a dozen favors in as many years, but the little everyday kindnesses none of which seems of much consequence considered in itself, but the continued repetition of which sheds a sunlight over the whole neighborhood. It is so too in the family. The child whose good offices are always ready when wanted—to run up-stairs or down, to rock the cradle, or run on an errand, and all with a cheerful look and a pleasant temper—has a reward along with such good deeds. If a little girl cannot take her grandfather on her lap as he takes her on his, she can get his slippers, or put away his book, or gently comb his thin locks; and, whether she thinks of it or not these little kindnesses that come from a loving heart are the sunbeams that lighten up a dark and woeful world.

True Enough.—Many a rich man is without money. Thousand of men with nothing in their pockets are rich. A man born with a sound constitution, a good stomach, good heart, good limbs, and a pretty good headpiece, is rich. Good bones are better than gold, good muscles than silver, and nerves that flash fire and carry energy to every function are better than land. It is better than an estate, to have the right of a father and mother. Good breeds and bad breeds, exist among men as really as among herds and horses.

How to Make Pants, Etc.

Every prudent housewife desires to do what she can to save in clothing the household. This is the way some things may be done in this line:—

Let the tailor cut a pair by measure, marking them ready to put together, which he will do for fifty or seventy-five cents. From these cut an exact paper pattern, mark carefully, and lay away for future use. An old pair to look at will furnish all the assistance necessary in making the pants. When another pair is required, buy the cloth at a dry goods store, and cut from the paper pattern. Three yards is the quantity of cloth required for a single pair and two pair made in this way, cost no more than one ready made, and have this advantage, they are not always buttonless or ripped.

Vests may be made in the same way. Seven-eighths of a yard is the quantity of cloth used. Cravats, cheaper and more durable than can be bought, may be made at home. Men's and boy's socks, if well lined and twilled cotton on the soles and heels, last longer, and do away with much of that immense and seemingly profitless labor—darning stockings.

How She Learned they were Silver.

The general servant of a Parisian gentleman entered "like Niobe, all tears," his wife's chamber, sobbing:

"Oh, madam! oh, madam! oh, madam!"

"What is the matter, Francoise?"

"Madam, I have stuck a fork into my finger."

"Oh, that's nothing, Francoise; you will not feel it to-morrow."

"I should not be afraid, madam, if I were sure the fork was silver."

"You may, then, be perfectly easy; the fork is—all of our forks are silver."

"Oh, then, I don't feel alarmed; but I was dreadfully frightened, and I thought the forks were plated.

The next day Francoise disappeared, taking all the forks with her.

Insensibility to the Beauty of Nature.—What a blessing would it be to us, one and all, could we but really wake up to the glory of this creation in which we live! Most men are actually asleep for their life-time in this vast and magnificent world. Mighty changes are going on around them, fitted to entrance their souls in wonder and thankfulness, and yet they are moved no more than if they were shut up in a mill, seeing only the perpetual revolution of spindles, and hearing only the monotonous hum and clatter of machinery. We might have been born amidst such machinery had the Creator so pleased. And men's insensibility often seems to deserve no better lot. But, instead of being pent within narrow walls, we live amidst this immeasurable universe. Instead of a few pale lamps giving only necessary rays, oceans of light daily overflow this planet whereon we dwell with inexhaustible splendor and beauty. And the fire that sustains the life of earth's creatures is forever freshly kindled millions of miles away.—*William Ellery Channing.*

Mothers.—Some one has said that a young mother is the most beautiful thing in nature. Why qualify it? Why young? Are not all mothers beautiful? The sentimental outside beholder may prefer youth in the pretty picture; but I am inclined to think that sons and daughters, who are most intimately concerned in the matter, love and admire their mothers most when they are old. How suggestive of something holy and venerable it is when a person talks of his "dear mother." Away with your mincing "mammas," suggestive only of a fine lady, who deputes her duty to a nurse—a drawing room maternal parent who is afraid to handle her offspring for fear of soiling her new gown. Give me the homely mother, the arms of whose love are all embracing—who is beautiful always, whether old or young—whether arrayed in satin or modestly habited in bombazine.

Discouraged Mothers.—Many a discouraged mother folds her tired hands at night and feels as if she had, after all, done nothing, although she has not spent an idle moment since she arose. Is it nothing that your little helpless children have had some one to come to with their childish griefs and joys? Is it nothing that your husband feels "safe," when he is away at his business, because your careful hand directs everything at home? Is it nothing when his business is over, that he has the blessed refuge of home which you have that day done your best to brighten and refine? Oh, weary and faithful mother, you little know your power when you say, "I have done nothing." There is a book in which a fairer record than this is written over against your name.

It is a great advantage to keep quiet gracefully and naturally. Self-control is the best evidence of a cultivated intellect and a clear conscience. It is a great pleasure to meet those who wisely listen and observe—who review what is said without prejudice, and with or without advice, commit no errors. Nothing is so difficult to do, nothing so rarely done.

Red Noses.—The French journals say that the Parisians are jubilant over the late discovery of Dr. Bernsie for the relief of red noses. By means of electricity he has restored a lady of rank to happiness, and changed her nose, a blooming rose, into a delicate lily.

Young Folks' Column.

Louise's Surprise Party.

One bright, pleasant morning in July, Louise's mother said to her, "Would you like to spend the day with brother Henry's wife?"

"Yes, indeed," was the reply.

"Well, you may go. You may put on your white dress, for it will be a warm day, and come home by six o'clock.

After dressing herself, and putting some work in her pocket, for she was an industrious little girl, Louise started off to have a pleasant visit with her sister.

No sooner had she left, than a few of her playmates, who had been watching for her departure from home, came in, bringing baskets, filled with flowers and made wreaths from oak leaves, to decorate the rooms.

Soon the busy fingers were keeping time with the nimble tongues. The wreaths were hung around the pictures, the vases were filled with flowers, and the rooms were made to look like a beautiful garden.

While the little girls were busy decorating the parlors, the kind mother and sisters were preparing for the feast of good things, making nice little biscuits, baking and frosting the heart-shaped, diamond and round cakes; for this was a sensible Surprise Party, and one that the mother knew all about. By and by, everything was finished and ready for the invited guests, who came trooping in at five o'clock, looking as sweet and happy as only children can look. Each little boy had a button-hole bouquet and each little girl carried a bouquet in her hand.

When they were all there, they arranged themselves in the form of a pyramid, the largest ones standing, the next in size sitting on chairs, and the very smallest sitting on the floor—all ready and waiting for Louise to come home.

Just as the clock was striking six, Louise came in the front door. Her mother met her with a smile, saying, "There's a bouquet for you in the parlor," and opening the door the little girl stood speechless with delight and surprise at the beautiful sight.

Soon the clapping of hands, and merry shouts transformed the bouquet into a group of happy children, who danced, sang, played games, and made way with all the "goodies" that had been prepared for them, until the hour of parting came, when the kind "goodnight" was said and each little one went home, feeling very happy that Louise's Surprise Party had been such a success.—*Covenant.*

A Little Boy's Letter With Its Lesson.

"Boys will be boys" is the excuse that loving grandmothers make to hide a multitude of sins. You see that by wearing spectacles, they somehow, sometimes, get into the habit of not seeing straight. A little chap puts a kitten into a tub of water, and holds her there till she is nearly drowned, and only laughs at the pitiful mews; he lets down the bars and permits the frisky colts to run into a neighbor's pasture; he plays "horse" with a whip, and stings other children with the lash, and yet, because he is such a little fellow, all is excused with a "boys will be boys."

Now I like to see a wide-awake, live boy, who don't go to sleep before the chickens, and who is alive all over; a brave, manly fellow, who shouts and sings all the day long, but who is as gentle and loving as that other little boy who played in the streets of Nazareth eighteen hundred years ago. A few weeks ago thousands of little children went to bed, one night, expecting that Santa Claus would visit their homes before the morning dawned. I know of one thoughtful boy, who was so afraid that his gentle old traveler would be hungry, that he begged a nice lunch from his mother, and setting it upon the table close by the stockings in the chimney corner, went off very happy to his little room. And the next morning when he found among his presents, a letter from Santa Claus full of thanks for the nice cake and pie, the child was as happy as his large heart could be.

One summer's day, a little boy that I love very dearly, went into the garden, and because he felt cross and a bit ugly, broke off a branch of beautiful flowers from a rare tree. But his better self soon came out, and at the tea-table in the evening, we found a letter printed with a pen, which I will copy for the good of other tempted boys and girls:

"I want to be a good boy and I will try. I can if I like. Sometimes I get cross and then I am sorry afterward. I wish I could always, then I could never be cross and be as this noon. I was naughty and had to be sent in."

Now, children, if you do forget sometimes to be good, will you not try to remember that you can be true and obedient if you only ask the loving Jesus to help you?—*Christian World.*

When is My Time.—This question was asked by a bright little girl, who was fond of talking at the close of the day to a busy father? When is my time? The query will carry its own moral to every parent who reads this. Let fathers and mothers, whatever duties may seem imperative, find "a time for talking with the little ones." Their time! Perhaps only fifteen minutes, but their time, exclusively and cheerfully. How many homes may be made brighter, and how many children counted saved if this advice were followed.

AGRICULTURAL ARTICLES.

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It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

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☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel**. Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

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At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

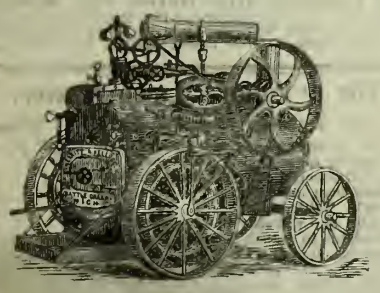
9v5-3m

KELLER & CO.,

43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

HAS A DOUBLE MOTION,

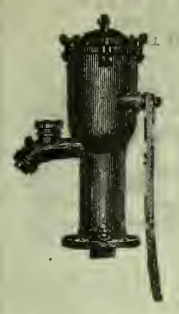
Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

TREADWELL & CO.,

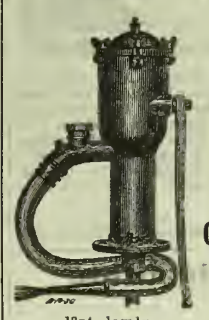
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Old Stand, Market, head of Front Street. f22-3m

THE PEOPLE'S PUMP.







THE ONLY RELIABLE PUMP FOR

Farmers, Stockmen and Stable Keepers,

BEING A

NON-FREEZING FORCE PUMP,

Working in Wells from

6 to 100 feet deep.

Suitable for either Hand or Power use.

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RATE IN PRICE, FROM $13 UP.

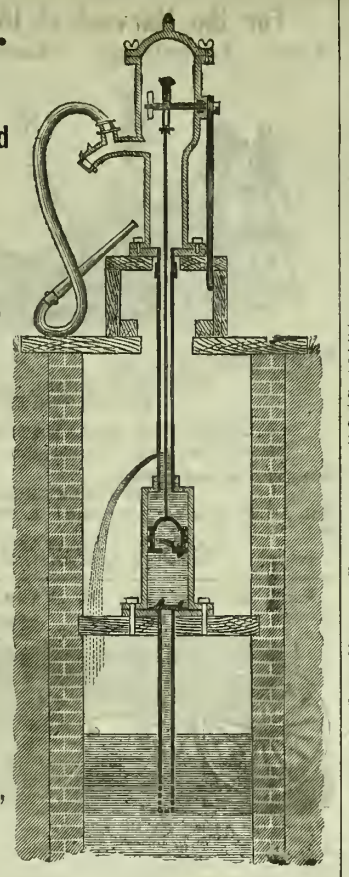
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Depot for Pacific Coast,

CONROY, O'CONNOR & CO.,

SAN FRANCISCO.



13v4—1amly

G. W. SWAN. OLIVER HUNCKLEY.

UNION BOX FACTORY,

SWAN & CO.,

114 and 116 Spear Street, - . - - San Francisco.

GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS.	FOR FARMERS.	FOR FRUIT CANNERS.
Sugar Boxes,		Plum Boxes,
Spice Boxes,		Cherry Boxes,
Citron Boxes,		Grape Boxes,
Jelly Cans,		Orange Boxes,
Pickle Cans,		Raisin Boxes,
Kerosene Cans,		Butter Chests,
Butter Caddies,		Strawberry Chests,
Lard Caddies,		Gift Packages,
Butter Chests,		Bullion Boxes,
Coin Boxes,		Coin Boxes,
Peach Baskets,		Tool Chests,
Strawberry Baskets,		Office Boxes,
Apricot Boxes,		Dry Goods Boxes.

All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

A New Discovery Makes Wood Impervious to any Liquid.

Another Cuts Wood as Thin as any Pasteboard and Smooth as Paper.

Another Makes a Strong Corner Without a Nail.

5v5-3m

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street..... .... AN FRANCISCO

IMPORTERS AND JOBBERS

—OF—

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,

Blacksmith and Mining Tools,

Rope, Iron, Steel, Ammunition,

Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

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ARCHITECT J. J. NEWSOM No. 430 MONTGOMERY St. S.F.

Lewis & Pander, Dealers in Stoves, Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont. S. F.

SEND this paper to your friends abroad.

Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal..
17v4-6m Sole Maker and Patentee.

MATTESON & WILLIAMSON'S

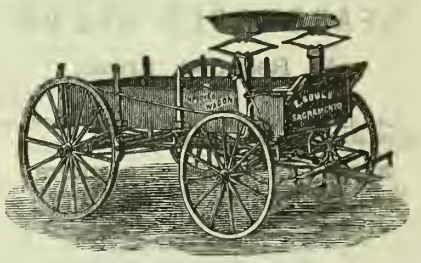
AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.



FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
ap22-3m **San Quentin, Cal.**

The Celebrated Whitewater Wagons

Thimble Skein AND IRON AXLE

Sole Agents TREADWELL & Co.

It will pay any man who wants a Wagon to examine "The Whitewater." It has the reputation of being the BEST Farm Wagon ever sold in California. All sizes for sale by TREADWELL & CO., Sole Agents, San Francisco. 7v5eow

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Calvert's Carbolic

SHEEP WASH.

TRADE MARK.

THE ONLY CURE AND PREVENTIVE OF

Scab and Foot Rot in Sheep,

Of Lice in Chickens,

And Ringworm in Cattle.

Sole Agency at **T. W. JACKSON'S,**
416 Sacramento street,
ms1-4t San Francisco.

Pacific Irrigating Pipe and Pump Co.,

A. M. JEWELL, Superintendent.

OFFICE AND FACTORY, SOUTH POINT MILLS,
Berry Street, between Third and Fourth,
SAN FRANCISCO.

10v5-3m

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,
Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.

21v2-1y

Wilder's Constitution Powders.

We would call the attention of our readers to the advertisement in another column, of WILDER'S CONSTITUTION POWDERS, which have lately been imported here to supply a need long felt in this State, of a *reliable* and safe remedy for the diseases common to the horse. One of the agents, Mr. Dutton, is lately from Boston, where the Powders are manufactured, and where they have been thoroughly and satisfactorily tested and universally approved, as may be seen by the Circular which they are sending to all parts of the State. Although they have been here a little over two weeks, the agents have received satisfactory reports of the effect of these Powders. Mr. S. A. Winall, Veterinary Surgeon, No. 13 Stevenson street, says: "You can refer any one to me that the Powders are *good*, and seem to do just what they claim to do. J. C. Bartlett, Truckman, Commercial Mille; D. L. Farnsworth, No. 210 California street; Messrs. Elliot Brothers, Stewart street, and others have used and speak well of these Powders. The agents are instructed by the proprietors to refund the money in all cases where they fail to give satisfaction, if fairly tested. The agents, Messrs. DUTTON & JAMESON, who are working mechanics, and are not depending on the sale of these Powders for a living, yet will be glad to receive orders from any one who needs them, and wish all such to give them a trial, relying on merit alone for success.

GROCERIES AND PROVISIONS.—Wines and Liquors are shipped to country orders with dispatch, carefully marked and packed, free of extra charge, by B. SBARBORO & BRO., 531 Washington street, S. F. This long established firm now import their goods from the four parts of the world, and consequently undersell all other grocers in San Francisco. All orders from the State and coast are promptly attended to. Address B. SBARBORO & BRO., Lock Box 1126, San Francisco. d14-3m

WM. SHEW'S PHOTOGRAPH GALLERY, the oldest in the State, and for a long time located on Montgomery street, is now on Kearny, at No. 115, and has no connection with any other. All kinds of Photographs taken in the very best style for about one-half the prices charged on Montgomery street. *

ALTOGETHER THE BEST.—It is curious, but true, that J. A. SHABER, 707 Market street, near Third, should sell Furniture and Bedding cheaper than any other dealer in this city. Try him and you will be convinced. 3v5-3m

A PROTRUDING toe is not a sightly thing, say nothing about health and comfort. SILVER TIPPED Shoes never wear out at the toe.
For sale by all dealers.

For the very Best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator," 429 Montgomery street, San Francisco. 26v4-3m-eowbp

SEASONABLE SEEDS

At Reduced Prices.

The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
Yellow Globe.	Long Red.

All Imported Seeds.

—ALSO—

Grass and Clover Seeds.

Timothy,	English Rye Grass,
Red Top,	White Clover,
Kentucky Blue Grass,	Red Clover.

ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

GEO. F. SILVESTER,
No. 317 Washington Street,
6v2-1y16p SAN FRANCISCO.

Improve Your Poultry!

It Costs No More to Keep Good Fowls than Poor Ones!



OAKLAND POULTRY YARDS,

Corner Sixteenth and Castro Streets, Oakland, Cal.

SEASON OF 1873.

Eggs for Hatching from the largest and best bred fowls in the world, carefully packed in Patent Boxes, and guaranteed to carry safely any distance.

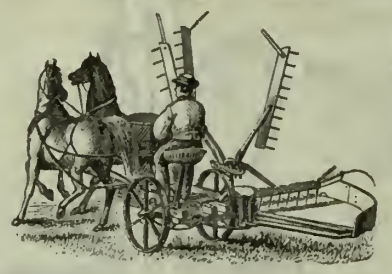
The varieties comprise Dark and Light Brahmas, Buff, Black, White and Partridge Cochins, White Leghorns, Houdans, Silver and Gelden Spandled Hamburgs, Gold and Silver Spangled Polish, Black Spanish, Crevecœurs, Rouen and Aylesbury Ducks, Bronze Turkeys, and Sebright and Game Bantams.

Send stamp for Illustrated Circular to GEO. B. BAYLEY, Importer and Breeder of Choice Poultry, P. O. Box 659, San Francisco; also agents for the POULTRY WORLD, a monthly illustrated journal, devoted entirely to Poultry; tells how to keep Fowls for PROFIT; a complete repository of information on the subject. Subscription only $1.25 a year. Agents wanted in every town in the State. Address P. O. Box 659, San Francisco.

☞ Please state in what paper you saw this advertisement. fb22

For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,
BUCKEYE REAPER,
BUCKEYE SELF-RAKE REAPERS,
HAINES' GENUINE HEADER,

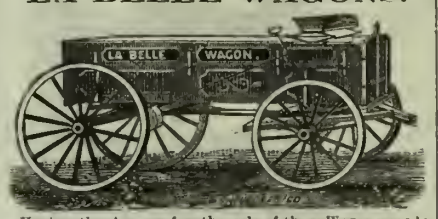
VIBRATOR SEPARATOR
(Manufactured by Nichols, Shepard & Co.),

MOUNTED HORSE-POWERS,
TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,
11v5-3m 108 and 110 Front street, San Francisco.

LA BELLE WAGONS.



Having the Agency for the sale of these Wagons, made at Fond du Lac, Wis., by Farnsworth Bros., Knapp & Co., we are prepared to furnish them, single or in any number, light medium or heavy 2-horse and 4-horse (Thimble-skeins and boxes), and warrant them to stand well, and to be equal in all respects to the best Eastern-made Wagons sold here.

Orders from the Country will receive prompt attention, and Price Lists sent on application.

MEEKER, JAMES & CO.,
S. E. Cor. California and Davis streets, San Francisco.
Address P. O Box 654, only. fe1-eow5t

H. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.



GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, Jr., AJAX, TRIBULATION, and SPECULATION, Jr., and the celebrated Maree, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptance.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. mI5-tf

FOR SALE—6,300 Acres of Land for Sale.

Situated on the south side of Merced River, opposite Snelling's, and having a river frontage of one and three fourths of a mile on said river. 1,000 acres are agricultural land; all of it is good sheep range; 250 acres are bottom land, which is all irrigated by ditches belonging to the land; which is divided into small fields, partly with good, live fences; 100 acres are in Alfalfa, 20 acres in Vines, 12 acres in Orchard; has a wine house with running water, and grapes of thrifty young trees for fuel. Also, 2,700 Sheep, including 1,800 grown Ewes, mostly three years old and younger.

Apply to GEORGE REED.
mal5-4t Snelling, Merced County, Cal.

Working Class, MALE OR FEMALE, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 16 Cortlandt st., N. Y. 24t

New York Seed Warehouse.

ESTABLISHED IN 1852,
R. J. TRUMBULL,
[Successor to C. L. KELLOGG]
Wholesale and Retail Dealer in



The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSKMELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v5-2m



IS THE LEADING COMMERCIAL SCHOOL OF THE Pacific. It educates thoroughly for business. Its conrse of instruction is valuable to persons of both sexes and of any age. Academic Department for those not prepared for business course. Open day and evening throughout the year. Students can commence at any time. Full particulars may be had at the College Office, 24 Post street, or by sending for HEALD'S COLLEGE JOURNAL.

Address E. P. HEALD,
President Business College, San Francisco.

San Jose Institute

AND

BUSINESS COLLEGE.

A Day and Boarding School for both sexes; the only Institute on the Pacific Coast where a thorough Academic and business education can be obtained.

The Business College Department

Is under the supervision of James Vinsonhaller, who for many years was at the head of Business Colleges of San Francisco.

The Twenty-Second Session commenced January 20th, 1873.

For circulars address

fb22-3m MRS. A. M. GATES, or JAMES VINSONHALLER.

EGGS FOR HATCHING

FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums
At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.
Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.
Apply to THOS. E. FINLEY, Manager,
California Stock and Poultry Association.
OFFICE—No. 113 Leidesdorff street, S. F. 5v5

Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

Carpets, Oil Cloths and Upholstery Goods,

IS AT

SCHLUETER & VOLBERG'S,

14 Third Street,..... .....Three doors from Market,

SAN FRANCISCO.
6v5-3m

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.

Office, 3 and 5 Front street.
Works, King street, bet. Second and Third. fe15-eow

MALVA TREE SEEDS.

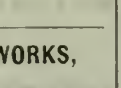
A FINE LOT OF

Malva Tree Seeds

Just received and offered for sale in any desired quantity. Address GEO. F. SILVESTER,
1t 317 Washington street.

DEVON STOCK FOR SALE.

A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character.



From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the Ranch of J. J. FELT,
jan25-3mI6p Three Miles from Menlo Park.

Buyers' Directory.

Under this head will be found the names and address of some of our most enterprising and reliable business men.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission. 501 Sansome st., N. W. corner Clay.

Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Niantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits, 519 Sansome street, S. F. All orders promptly attended to.

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen Utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 724 Market st., S. F.

I X L Plating Works, 715 Mission street, San Francisco. Table Ware re-plated to look like new. Table Spoons, Forks and Knives three dollars per dozen. If sent by Express, will be returned C O. D.

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Common Furniture, Bedding and Upholstery Goods, No. 725 Market street (Bancroft's Building), San Francisco.

Jacob Schreiber, Dealer in Live Geese Feathers, Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

A. Greenebaum & Co. (Successors to Herman Heuck), Manufacturers, Importers and Dealers in Havana and Domestic Cigars, Tobaccos, Snuffs, Pipes, Matches, etc. 233 Kearny street. Give them a call.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns cut, and Teacher of her system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 34 Third St. JOHN D. GODEUS, Proprietor.

Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

R. D. Mowry, Poultry and Game Dealer, Wholesale and Retail Dealer and Commission Merchant. Stalls 103 & 101 California Market. Orders solicited and promptly delivered free in the city.

Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. List and Rag Carpets for sale. Send for Circular. Address, ALEX. MACKAY.

The White Stall.—E. O. Andrews & Co., Retail Dealers in Butter, Eggs, Cheese and General Assortment of Fancy Groceries, No. 23 Occidental Market, San Francisco. feb22-3m

Van Duzer & High, Commission Merchants, and Dealers in Butter, Cheese, Eggs, Poultry, Hides, Tallow, etc., No. 502 Merchant street, San Francisco.

San Francisco Wire Works, 665 Mission St., S. F. C. H. Gruenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

The "Victor" Lawn Mower.

Simple, Durable and Practical.



Will cut wet grass as well as dry. It is impossible for it to clog, as its geare are perfectly covered after the most improved American method. Draught light; runs entirely on wheels; very simple in its adjustment. It is a Self-Sharpener; all parts of the machine made to interchange. The geare are all enclosed, and it is quickly thrown in or out of gear. THE VICTOR is the only perfect Lawn Mower in the country; it is also a perfect Garden Roller. **Price, $25.** Sold only by
10v5-1m **TREADWELL & CO.,** San Francisco.

WILDER'S CONSTITUTION POWDER,



FOR HEAVES, STAGGERS, FITS, COLIC, LUNG FEVER, COLDS, COUGHS,

And used with great success for the
EPIZOOTIC.

Wilder's Fox Ointment,
For Spavins, Curbs, Splint, etc. Send for circular containing reference.

Money refunded if satisfaction is not given.

DUTTON & JAMESON, Sole Agents,
11v5-tf 306 Market street, San Francisco.

NOVELTIES FOR 1873.

Sculptured Seed Water Melon,
Russian American Water Melon,
New Strawberry Water Melon,
White Naples Onion.

Sold in papers at 25c each. Also

JOINT POP CORN, 15c PER POUND.

Address, GEO. F. SILVESTER,
m15-4t 317 Washington street, S. F.

SEND this paper to your friends abroad.

S, F. and Liverpool Average Price Wheat.

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡—Average monthly decrease.

¶—The difference here noted is that between the average price of average shipping wheat in S. F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873	SAN FRANCISCO.								LIVERPOOL BY TEL.				DIFF.¶
DATE.	COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	CALIFORNIA AVERAGE.		CALIFORNIA CLUB.			
Feb. 10	1 60 @1 85	....	1 90 @1 92½	....	1 90 @1 92½	....	2 96 @2 99		3 05 @3 18		1 05¼
11	1 60 @1 80	....	1 90 @1 92½	....	1 90 @1 92½	....	2 92 @2 97		3 05 @3 18		1 03¼
12	1 60 @1 80	+1½	1 85 @1 90	+3¾	1 85 @1 90	2¾	2 92 @2 97		3 09 @3 23		1 03½
13	1 60 @1 75	....	1 85 @1 87½	+1¼	1 85 @1 90	....	2 91 @2 95		3 09 @3 23		1 06¾
14	1 60 @1 75	....	1 85 @1 87½	...	1 85 @1 94	....	2 93 @2 95		3 09 @3 23		1 07¾
15	1 60 @1 75	....	1 85 @1 87½	....	1 85 @1 90	....	2 93 @2 95		3 09 @3 23		1 07¾
17	1 60 @1 75	....	1 85 @1 90	+1¼	1 85 @1 90	..	2 93 @3 95		3 09 @3 23		1 06½
18	1 60 @1 75	....	1 85 @1 90	...	1 85 @1 90	....	2 93 @2 95		3 09 @3 23		1 06½
19	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93 @2 95		3 01 @3 17		1 06½
20	1 60 @1 75	....	1 70 @1 90	+2½	1 85 @1 90	....	2 93 @2 97		3 01 @3 17		1 10
21	1 60 @1 75	....	1 80 @1 87½	+1¼	1 85 @1 90	....	2 89 @ —		3 03 @3 15		1 05¼
22	1 60 @1 75	....	1 80 @1 87½	..	1 85 @1 90	....	2 89 @2 91		3 03 @3 15		1 06¼
24	1 60 @1 80	+2½	1 80 @1 85	+1¼	1 85 @1 90	....	2 89 @2 87		3 03 @3 15		1 07½
25	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87		3 03 @3 15		1 04½
26	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87		3 03 @3 15		1 04½
27	1 60 @1 75	+2½	1 70 @1 80	+7½	1 80 @— —	+7½	2 83 @2 85		3 03 @3 15		1 09
28	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87		3 03 @3 15		1 09
Mar. 1	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87		3 03 @3 15		1 09
3	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87		3 03 @3 15		1 09
4	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87		3 03 @3 15		1 09
5	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 82 @2 89		3 03 @3 15		1 11½
6	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 84 @2 90		2 95 @3 03		1 12
7	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 85 @2 91		.....		1 13
8	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91		.....		1 08
10	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91		.....		1 08
11	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91		.....		1 08
12	.....	....	.....	....	.....	....	.....		.....		.....
Extreme advance..	.....	....	.....	....	.....	....	.....		.....		.....
Extreme decline..	15	.....	....	17½	.....	11½	.....		.....		.....

Comparative Prices of Wheat.

1872	S. F.	LIVERPOOL.		DIFF. BET.	
Dec	SHIP.	TELEGRAPH*	MAIL.†	S. F. and Teleg'h.	Mail and Teleg
31	2 05	3 08@3 12	3 11@3 33	1 17	12
1873 Jan					
3	2 05	3 12@3 16	3 11@3 33	1 17	8
7	2 11½	3 12@3 16	3 11@3 33	1 10¾	8
10	2 08¾	3 10@3 14	3 07@3 29	1 09¾	6
14	2 02½	2 97@3 01	3 10@3 16	96¾	14
17	2 05	3 03@3 05	3 12@3 18	1 10	11
21	2 02½	3 06@3 08	3 07@3 27	1 14½	10
24	2 02½	3 04@3 06	3 05@3 25	1 12½	10
28	1 95		3 03@3 25		
13	1 92½	2 98@3 01	3 01@3 23	1 07½	12½
Feb. 4	1 92½	2 98@3 01	3 03@3 28	1 07	11
7	1 91¼	2 96@2 99	2 99@3 20	1 06¼	12

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of said Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCIAO, March 12tb, 1873.

The tone of the Produce Market, tbis week, has heen very much improved, in consequence of the rise in the Liverpool market, and in consequence also of tbe knowledge on the part of aellers that tbe last crop of Wheat will be very soon exbausted. The daily Press has heen giving some attention to the bag question, and we have made further inquiries on the matter, which satisfy us that the time is not far distant when the whole of the wheat bags needed on this Coast can he made here at one-half tbe cost of those imported from Great Britain. One of the largest of our bag manufacturers is our authority for stating that bags can he manufactured here, made from jute manufactured in this ci ', for 9 cents each. The jute costs 8 cents; spinning, 1 ¸ it; weaving, 1 cent, and making, 1 cent. Bags coat as much to make in Dundee as they do here. Then there is duty, insurance, commissions, inland char es, freights, etc., to be added, which brings up the cost to nearly 17 cents each. We want more burlap mills like that in Oakland. Wool, thongh depressd in this market, has aaaumed a much better tone in New York, the last salea being made at from 20 cents to 40 cents per pound.

RECEIPTS.—Receipts, this week, have been of a good average character, that is, when compared with the last few weeks. Those of Flour have decreased two-tbirds, hut we have received a much larger quantity of Wheat, and, owing to speculative movements in the market, those of Barley have been doubled. Those of Oniona have decreased two-thirds; those of Hay have increased about one-third; those of Hidea nearly twice and those of Wine, one-third. Middlings have increased three-fold during the week, hut we have received no Beans. This is a sign that last year's harvest is now well nigh disposed of.

We summarize receipts of Bay Produce to date as 7,940 quarter sacks of Flour; 219,527 centals of Wheat; 11,735 do of Barley; 120 do of Oats; 40 do of Rye; 30 do of Corn; 2,290 do of Potatoes; 314 do of Beans; 230 do of Oniona; 1,010 do of Middlings; 16 do of Mustard Seed; 1,288 Hides; 80 hales of Wool; 830 tons of Hay; 37 do of Straw; 2,140 gallons of Brandy; 21,080 do of Wine; 124 harrels, and 52 half barrels of Beet Sugar; 100 barrels of Ohiccory; 5 balea of Hops, and 73 hales of Cotton.

Receipts of Wheat at Oakland Wharf have aggregated 48,200 centals or 241 car loads.

Receipts of all kinds of Coast Produce, save those of Barley have fallen short this week. We summarize 221 centala of Wheat; 4,099 do of Barley; 450 do of Oats; 806 do of Corn; 6,519 do of Potatoes; 50 hales of Wool; 229 centals of Beans, and 36 pipes, 7 puncheons, 1 cask, 1 barrel and 2 kegs of Wine.

From Oregon the "Ajax" has brought us 534 gunnies, 1,959 half sacks and 3,899 quarter sacks of Flour, 297 sacks of Potatoes, 2,684 centala of Wheat, 3,642 do of Oats, and a variety of other produce.

BARLEY.—The speculative movement noticed laat week has had a tendency to bring great quantities into the market. We have received 15,834 centals last week, and it is estimated that there are yet 300,000 centals to come forward. The sale last week was of 42,000 bags, of which 32,000 hags were sold at $1.20 to $1.35, for export to Australia. We note salea of 700 bags of Bay Brew at $1.25; 4,000 at $1.30; 2,200 do at $1.30 to $1.35; 500 Bay Brew at $1.32½ and 800 do at $1.35.

FLOUR.—There is a large demand for export and 10,000 barrels have been bought to he shipped per the "Cairnamore" to China. Nevertheless the market for best brands has again fallen 12½ cents. Exports include 182 barrels, 4,863 half sacks, and 5,795 quarter sacks to Victoria, Central America, Petropaulowaki, Liverpool, New York, Panama and Mexico.

HAY.—Receipts principally of Wheat and Oat bave been pretty large this week, some of it however heing still of poor quality. We note sales of 10 tons of good at $20; 20 tons of good Wheat at $20; and 80 do of choice Wheat on terms reserved.

HOPS.—There is now nothing worth recording in the matter of Hops. Tbere bave heeu no sales and prieea are unchanged.

OATS.—Oats remain nearly as last week. We have received a very large shipment of 3,642 centals from Oregon. We note sales of 150 sacks of light Coast at $1.95; 300 do fair at $2.10; 2,200 do Oregon at $2.17½ and 600 do Oregon at $2.20.

POTATOES.—Receipts for the week have been smaller tban those of last week, amounting to 9,106 centals. We note salea of 450 sacks of Bodega, at $1.07½ to $1.12½; 500 do Tomales at $1.05 to $1.10; 2,600 do Humboldt at $1.10 to $1.25 and 300 do Petaluma at $1.00 to $1.12½.

WHEAT.—Wheat has advanced this week on account of the advance in Liverpool and the weakness in freights, which do not now exceed $19.36 per ton. The price in Liverpool according to Associated Press and Merchants' Exchange telegrams has advanced 3 cents over that of laat week, heing now $2.85 to $2.91. Receipt have heen larger than those of last week, aggregating 270,632 centals, including 2,684 of Oregon. Exports have heen exceedingly light, sales not heing very brisk owing to the uncertainty as to what the atate of the Liverpool market is going to he. We note sales of 6,000 bags of shipping at $1.75; 500 do fair at $1.77½; 800 do Milling at $1.80; 37,000 do shipping at $1.85; 400 do choice at $1.90, and a cargo at $1.85.

Exports include per "Warwickshire," to Liverpool, 20 centals; per "San Rafael," to Cork, 29,099 do; per "Gold Hunter," to Liverpool, 43,199 do; and per "Tahor," to Liverpool, 40,501 do; a total of three cargoes and one shipment of 112,819 centals, worth $212,662.

WOOL.—Wool has improved in the New York market, but baa rather reeeded in thia. Salea have amounted to 10,000 pounds Spring; 14,000 pounds Fall, and 15,000 pounds Mixed.

GENERAL MERCHANDISE.

Buainess has been a little brisker this week, and in Oase Goods a fair business bas been done. In Coffees, Coata Rica has advanced 1 cent and Java haa declined 3 cents. Pickled Cod is nearly out of the market. Mackerel is in good demand. Some dealers are out of stock. There are plenty, however, in kits. Ham and Bacon are atiff owing to a rumor of a rise in tbe Eastern market. Oils are as usual—there is not much demand. Rice is rather quiet, but there is some demand for export. Cloves have fallen, and Nutmegs have advanced. A fair business is heing done in Tohacco. Lumber is quiet. Pig Iron is firm at $60 wholesale and $62.50 to $65 jobbing; 150 tons were sold at theae last figures during the week. Jobhing prices of Tin Plate are 50 centa in advauce of our quotations. Twenty thousand pounds of Old Sheating have been recently sold at 12½ cents. We note sales of Standard Compauy's Soaps, 2,000 boxea C. O.; 1,100 do Detersive; 1,000 do Portman's C. O.; and 1,500 do Standard Washing Powder at current rates. We alao note sales of Mission Soap, 1,000 hoxes at 5½ cents, 75 gross of Washing Powders in 1 lh. papers, and 220 boxes hulk at current rates. Exports have been carried in 11 veasels and are worth $516,361.

FRUIT MARKET.

The supply of Oranges and Limes is good this eek. We have been receiving considerable supplies Oranges from Tahiti. Good apples are scarce, but all otber fruits in tbe market are in plentiful supply.

FRUIT MARKET.		Pears, ₱ lb.....	5 @ 7
Tahiti, Or. ₱ 1000	25—@35 —	Peaches, ₱ lb.....	10 @12½
Cal. do.....	20 —@40 —	Apricots, ₱ lb.....	— @—
Limes, ₱ M....	15 — @20 —	Plums, ₱ lb.....	5 @10
Cal. Lemons, 1000	40 —@50 —	Pitted, do ₱ lb.....	15 @20
Mess'ne do., bx...	15 —@18—	Raisins, ₱ lb.....	8 @12½
Bananas, ₱ bnch	2 —@4 —	Black Figs, ₱ lb....	5 @ 8
Pineapples, ₱ dz	— @—	White, do	15 @20
Apples, cat'g, bx, 2	00 @3 00	**VEGETABLES.**	
" Cooking....	1 75 @2 50	Oahhage, ₱ dz.....	50@00
Pears, Eating..	2 00 @3 50	Garlic, ₱ lb.....	6 @ 8
" Cooking..	1 50 @2 00	Green Peas.....	6—@8
Pomegran's, ₱ 100	— @—	Green Corn ₱ doz..	— @—
Grapes, Mission.	— @—	Marrowfat Squash per ton.....	7 50 @—
Rose of Peru..	— @—	Artichokes, ₱ lb....	2 @ 3
Blk Hamburg.	— @—	Tomatoes, L. A. ₱..	12½@—
Black Prince..	— @—	String Beans, ₱ lb...	—@—
Muscat of Al'r	— @—	Lima Beans.....	6 @ 8
Flame Tokay...	— @—	Peppers dry.....	20 @25
Black Morocco	— @—	Okra.....	30 @35
Wine Granes..	— @—		
DRIED FRUIT.			
Apples, ₱ lb.....	6 @ 8		

DOMESTIC PRODUCE.

Wednesday M., March 12, 1873.

BEANS.		Rye.....	2 25 @ —
Beans, sm'l w'ite	4½@ —	**HOPS.**	
do, butter.....	4½@ —	California, 1871, lb	— @ —
do, largc, do..	5 @ —	do 1872..	50 @ —
do, bayo.....	3½@ 3½	Eastern, 1872, lb..	62½@ —
do, pink.....	4½@ —	**MISCELLANEOUS.**	
do, pea.....	4½@ —	Beeswax, per lb..	30 @ 45
BROOM CORN.		Honey, choice...	10 @ 15
Per ton.....	$40@120	Loe Ang. Honey.	30 @ —
DAIRY PRODUCE.		Onions.....	3 @ 5
Butter, Cal. fresh	— @—	Flaxseed.....	3 @ 5
do, ordin'y roll	28 @ 30	Canary do.....	4½@ 6
do, choice.....	32½@ 34	Mustard do, w'ite	1½@ 1¾
do, new firkin.	34 @—	do, brown.....	2 @ 2½
do, packed.....	— @—	Peas, Chili.....	25 @—
do, New York..	— @—	Alfalfa.....	35 @—
Cheese, Cal. new	13 @ 16	Ky. Blue Grass..	50 @—
do, Eastern	14 @ 16	Timothy.....	— @—
Eggs, Cal. fresh	— @ 32½	Italian Rye.....	— @—
do, Oregon.....	28 @—	Pirennial do ...	35 @ —
do, Eastern.....	— @—	**NUTS.**	
FEED.		Peanuts per lb...	3 @ 5
Bran per ton.....	20 00 @21—	Pecan nuts.....	16 @—
Middlings	27 50 @32 50	Hickory do.....	10 @—
Hay.....	18 00 @22—	Brazil do.....	16 @—
Straw.....	12 80 @—	Coc'snuts, ₱ 1000	90 00 @—
Oil cake meal...	30 00 @—	Alm'ds b'rd shell	— @ 12½
Corn Meal.....	$30 00 @40—	do, soft.....	23 @ 25
FLOUR.		**POTATOES.**	
Alviso Mills, bbl.	4 25 @5 75	Sweet, per lb.....	87½@—
California.....	4 25 @5 75	Humboldt.....	1 15 @1 25
City Mills.....	4 50 @5 75	Monterey.....	1 @—
Comme'l Mills..	4 50 @5 75	Tomalee.....	— @1 00
Golden Gate.....	4 50 @5 75	**POULTRY & GAME.**	
Golden Age.....	4 50 @5 75	Live Turkeys lb.	— @ 22½
National Mills..	4 50 @5 75	Hens, per dz....	— @10 00
SantaClaraMills	4 50 @5 75	Roosters.....	— @10 00
Genesee Mills...	4 50 @5 75	Chickens.....	7 50 @8 00
Oregon	4 50 @5 75	Duoks, tame, doz	14— @16—
Vallejo Star.....	4 50 @5 75	do, Mallard....	3 50 @— —
Venus, Oakland..	4 50 @5 75	Geese, per pair.	3 50 @3 50
Stockton City...	4 50 @5 75	Quail, per doz...	— @2 00
Lombard. Sac...	4 50 @5 75	Hare, per doz...	2 50 @3 00
FRESH MEAT.		Rabbits, each....	— @ 75
Beef, fr quality..	9 @ 10	Larks, each.....	75 @—
do, seoond do..	6½@ 8	Doves, per doz..	— @ 75
do, third do.....	5 @ 6	Plover, per doz..	— @ 75
Veal.....	9 @ 10½	Curlew, per doz.	75 @—
Mutton	8 @—	Teal, per doz....	— @2 25
Pork, undressed.	— @ 6¾	Snipe, Eng., doz	2 25 @—
do, dressed....	8½@ 9	Venison, per lb	— @—
GRAIN, ETC.		**PROVISIONS.**	
WheatCal. ooastl	60 @1 75	Cal. Bacon, per lb	— @ 13½
do, shipping ..	1 75 @1 85	Eastern do.....	11 @ 12½
do, milling.....	1 80 @1 90	do sugared.....	12½@—
do, Oregon.....	— @1 90	Cal. Hams	14 @—
Barley, DarkC'st	— @1 30	Eastern do.....	12½@—
do, Light.....	— @1 35	Cal. Smoked Beef	11 @—
do, Brewing....	— @1 40	**WOOL, ETC.**	
Oats, Coast.....	2 10 @—	ChoiceNor'n, fall	18 @ 19
do, Light.....	2 20 @—	do spring	22 @—
Corn, White.....	1 30 @—	Seedy.....	12 @ 13
do, Yellow.....	1 30 @—	Burry.....	12 @ 13
Buckwheat.....	1 75 @—	Hides, dry.....	19½@—
		do green.....	9 @—
		Tallow.....	7 — @—

GENERAL MERCHANDISE.

BAGS.		Whitening.....	— @—
Eng, stand. Wh't	15½@ —	Chalk.....	— @ 2
Flour Sacks ½s..	16½@ —	Paris White.....	— @ 21½
" ¼s.	8½@ 9¼	Ochre.....	— @ 2½
Stand. Gunnies..	17 @ 17½	Venetian Red...	— @ 2¾
" Wool Sacks.	— @ 70	Red Lead.....	— @ 10
" Barley do	16 @—	Litharge.....	— @ 10
Hessian 40-in. gds	— @ 12	**RICE.**	
do 60	17 @ 17½	China No. 1, ₱ lb	6½@ 7
CANNED GOODS.		do 2, do.	5¾@ 6½
Asst'd Pie Fruits in 2½ lb cans.	3 00 @ 3 25	Japan.....	6 @ 7
do Table do..	4 00 @—	Patna.....	7 @—
Jams & Jellies	4 — @ 4 25	Hawaiian.....	8½@ 9
Pickles ½ gl..	3 25 @ 3 75	**SALT.**	
COAL—Jobbing.		Cal. Bay, per ton.	8 00 @10—
Australian	14 00 @—	Carmen Island..	16 00 @30—
Coose & Bel. Bay.	12 00 @—	Liverpool fine...	26 @—
Seattle.....	12 00 @—	do coarse	25 00 @—
Cumberl'd, cks..	25 00 @—	**SOAP.**	
do bulk..	22 50 @—	Castile, ₱ lb....	12 @—
Chile.....	— @—	Local brands....	5½@ 7
Lehigh.....	18 20 @—	**SPICES.**	
Liverpool.....	12 50 @—	Allspice, per lb..	17 @ 18
West Hartley....	16 00 @—	Cloves.....	27½@ 30
Scotch.....	16 00 @—	Cassia.....	30 @—
Scranton.....	14 00 @—	Nutmeg.....	1 00 @1 05
Vancouver's Isl..	12 50 @—	Whole Pepper...	22 @—
Charcoal, ₱ sk..	1 00 @—	Ground Allspice	22½@—
COFFEE.		do Cassia..	40 @ 45
Costa Rica per lb	19½@ —	do Cloves..	30 @—
Guatemala.....	18½@—	do Mustard	25 @—
Java.....	18½@ 19	do Ginger..	22½@—
Manilla.....	17½@—	do Pepper..	22½@—
Ground in cs....	23 @—	do Mace...	1 30 @—
Chicory.....	8 @ 10	do Coffee..	25 @—
FISH.		**SUGAR, ETC.**	
Pac. Dry Cod, new bundles, ₱ lb..	8½@ —	Cal. Cube per lb.	12½@—
Eastern Cod.....	8½@ 9	Circle A crushed	12½@—
Salmon in bbls..	8 00 @—	do granulated	11¾@—
do ½ bbls	5 00 @—	Golden C.....	10 @—
do 2½ lb cans	— @—	Hawaiian.....	20 @ 22½
do 2lb cans..	— @—	Cal. Syrup in bls.	42½@—
do 1lb cans..	— @—	do in ½ bls.	45 @—
Pick. Cod, bbls..	— @—	do in kegs..	50 @—
do ½ bbls.	— @—	**TEA.**	
Pug. Sd. Smok'd	— @—	Oolong, Canton..	19 @ 25
Herr'g, bxs ₱ lb	— @ 50	do Amoy..	28 @ 50
Mack'l, No. 1, ½ bls	— @10 00	do Formosa	40 @ 80
" Extra.....	— @14 00	Imperial, Canton	25 @ 35
" in kits....	2 00 @3 25	do Pingsuey	45 @ 80
" mess.....	— @3 00	do Moyune.	60 @1 00
" ex. mess..	— @4 50	Gunpo'der, Cant.	30 @ 42½
NAILS.		do Pingsuey	50 @ 90
Assorted size....	5½@ 8 —	do Moyune.	65 @1 25
OILS.		Y'ng Hy., Canton	28 @ 40
Pacific Glue Co. Neat F't No. 1.	— @—	do Pingsuey	40 @ 70
Pure.....	1 25 @—	do Moyune..	65 @ 85
Cocoa Nut.....	60 @—	Japan, ½ chests, bulk.....	30 @ 75
Olive Plagniol..	5 00 @—	Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
do Possel....	4 75 @—	Japan do, 3 lb bxs	45 @ 90
Palm.....	9 @—	do pl'n bx, 4½ lb	35 @ 65
do Bagicalupi.	— @—	do ¼ & 1 lb paper	30 @ 55
Linseed.....	1 05 @1 10	**TOBACCO—Jobbing.**	
China nut in cs..	75 @ 80	Bright Navys....	52½@ 60
Sperm, crude....	1 25 @—	Dark do	50 @ 55
do bleached..	1 90 @—	Dwarf Twist....	60 @ 65
Coast Whales...	45 @ 50	12 inch do	60 @ 67½
Polar, refined....	60 @—	Light Pressed..	65 @ 75
Lard.....	95 @—	Hard do ..	60 @ 70
Coal, refined Pet	40 @ 42	Conn. Wrap'r....	40 @ 50
Oleophine.....	40 @—	Penn. Wrapper..	35 @ 45
Devoe's Bril't....	44 @ 46	Ohio do ..	30 @ 40
Long Island.....	42 @—	Virgi'a Smok'g..	60 @ 95
Eureka.....	42½@ —	Fine ct che'g, gr..	8 50 @9 25
Downer Kerose'e	55 @—	Fine cut chewing, buo'ts. ₱ lb..	75 @ 90
Gas Light Oil ...	42 @—	Banner fine cut..	9 25 @—
PAINTS.		Eureka Cala.....	8 50 @—
Stand. Wh. Lead.	— @ 10		

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M.....	$20 00	Rough, ₱ M.....	$25 00
Rough refuse, ₱ M.....	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M.....	32 50	Flooring, narrow, ₱ M..	40 00
Rough clear refuse, M..	22 50	Flooring, 2d quality, M..	30 00
Rustic, ₱ M.....	35 00	Laths, ₱ M.....	4 00
Rustic, refuse, ₱ M....	24 00	Furring, ₱ lineal ft....	1c
Surfaced, ₱ M.....	32 50	Rough, ₱ M.....	$25 00
Surfaced refuse, ₱ M...	22 50	Rough refuse, ₱ M.....	20 00
Flooring, ₱ M.....	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₱ M..	20 00	Rough Pickets, ₱ M....	18 00
Beaded floorng, ₱ M...	32 50	Rough Pickets, p'd, M..	20 00
Beaded floor, refuse, M.	22 50	Fancy Pickets, ₱ M.....	30 00
Half-inch Siding, M....	22 50	Siding, ₱ M.....	27 50
Half-inch siding, ref. M.	16 00	Siding, ₱ M.....	42 50
Half-inch, Surfaced, M..	25 00	Rustic, ₱ M.....	60
Half-inch Surf. ref.. M.	18 00	Battens, ₱ lineal foot...	1
Half-inch Battens, M...	22 50	Shingles ₱ M.....	3 50
Pickets, rough, ₱ M....	14 00	Tongued and Grooved, surfaced, ₱ M.....	40 00
Pickets, rough, p'ntd...	16 00	Do do refuse, ₱ M.....	27 50
Pickets, fancy, p'ntd....	22 50	Half-inch surfaccd, M..	40 00
Shingles, ₱ M.....	3 00	Rustic, ₱ M.....	42 50
		Battens, ₱ lineal foot...	1
		Shingles ₱ M.....	3 50

TEACHER.

A lady, a good musician and teacher of the piano, French and English, wishes a situation in a family. Best recommendations. Address, with terms, etc., M., at this office, m15-1t

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, Marcb 12, 1873.

The price of sole leather continues the same. French Calf Skins still have an upward tendency, with prospects of a further advance.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@28
Country Leather, ₱ lb	25@28
Stookton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$80 00@ —
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, seoond choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Lemoine, 16 to 18 Kil. ₱ doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	66 00@ 72 00
Ogeran Calf, ₱ doz	54 00@ —
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon. 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 8 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	55 00 to 70 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
Frenoh Calf Boot Legs, ₱ pair	4 00
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	18@ 23
Wax Side Leather, ₱ foot	20@
Eastern Wax Leather	26

San Francisco Metal Market.

IRON.—	
Scotch Pig Iron, ₱ ton	$60 00 @ — —
White Pig, ₱ ton	20 00 @ — —
Refined Bar, bad assortment, ₱ lb	— — @ — 06
Refined Bar, good assortment, ₱ lb	— — @ — 06½
Boiler, No. 1 to 4	— 05½@ — 06
Plate, No. 5 to 9	— 06½@ — 07
Sheet, No. 10 to 13	— 07½@ — —
Sheet, No. 14 to 20	— 08 @ — 08½
Sheet, No. 24 to 27	— 08 @ — 09
Horse Shoes, per keg	9 00 @ —
Nail Rod	10½@ —
Norway Iron	9 @ 10
Rolled Iron	10½
Other Irons for Blacksmiths, Miners, etc.	5½@ 6½
COPPER.—	
Braziers	— 35 @ — 38
Copper Tin'd	— 50 @ — —
O. Nail's Pat	— 55 @ — —
Sheathing, ₱ lb	— — @ — 29
Sheathing, Yellow	— 29 @ — —
Sheathing, Old Yellow	— — @ — 12½
Composition Nails	— 29 — 30
Composition Bolts	— 29 — 30
TIN PLATES.—	
Plates, Charcoal, IX ₱ box	14 50 @ 15 —
Plates, 1 C Charcoal	13 50 14 —
Roofing Plates	13 00 13 50
Banca Tin, Slabs, ₱ lb	— 40 — 42½
STEEL.—English Cast, ₱ lb	— 20 — 25
Drill	20 — —
Flat Bar	22 — —
Plough Points	16 — 17
Russia (for monld boards)	17 18
ZINC	9¼ 10
Zinc, Sheet	— 9 — 10
NAILS—Assorted sizes	— 5½@ — 9

San Francisco Retail Market Rates.

WEDNESDAY NOON, Marob 12, 1873.

FRUITS, VEGETABLES, ETC.

The supply of fruits—Oranges, Apples and Pears—is very limited. The Apples are nearly all from Oregon. Tropical fruits, such as Bananas, Limes and Lemons, are in plentiful supply. Mushrooms are scarce. Italian Cheatnuts are scarce. Vegetables of all kinds are abundant. Asparagus is plentiful. The crop this year will be tremendous and the market is constantly declining.

Apples, pr lb....	5	@	10	Carrots, ₱ doz...	—	@	20
Pears, per lb.....	5	@	15	Celery, ₱ doz....	75	@	—
Apricots, lb.....	—	@	—	Cucumbers, †	25	@	50
Pine Apples, each	50	@	1 00	Tomatoes, ₱ lb..	25	@	—
Bananas, ₱ doz..	75	@	—	Green Peas.....	20	@	25
Canteleups.....	—	@	—	String Beans....	—	@	20
Watermelons....	—	@	—	Cress, ₱ doz bun	—	@	20
Italian Chest'ts.	50	@	—	Dried Herbs, lb..	25	@	35
Cal. Walnuts, lb.	20	@	—	Garlic.....	10	@	—

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Stock Notices.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere

GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

N. GILMORE

El Dorado, El Dorado county,

6v3-eow-tf California.

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough-bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,

fe15-2m Oroville, Butte County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS." —*Alexander.*

"You get no FIGS from THISTLES."—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,

Mission St. Stables, cor. 22d and Mission Sts.,

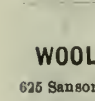
24v4-tf San Francisco, Cal.

Office and Rooms, in Webb's Building, 37 Second St., opposite the Grand Hotel.

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.

10v3-3m

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

GREAT JOINT SALE

—OF—

SHORT-HORNS

AND

COTSWOLD SHEEP,

consisting of the

ENTIRE WOODLAWN HERD

Of Wm. B. Dodge, and a large draft from the

GLEN FLORA HERD

At WAUKEGAN, ILLINOIS, on

Wednesday, April 9th, 1873.

The subscribers announce that they will hold a public sale, at WAUKEGAN, ILLS., WEDNESDAY, April 9th, 1873, of **90 Head** of highly and fashionably-bred **Short-Horn Cattle,** and **100** pure-bred **Cotswold Sheep,** mostly imported, being the entire Woodlawn herd of WM. B. DODGE, and a large number of the most desirable animals from the Glen Flora herd, of the Glen Flora Stock Breeding Association.

Among the animals to be sold are

MAZURKAS,
LADY CLARKS (Miss Wileys),
JUBILEES,
MINNAS,
CONSTANCES.

Also, several other noted animals, including **Henrietta, Lady Brough, Countess of Oxford, Pattie Moore and Flattery 4th,** the get of the noted Minister, the prize bull Scotsman, etc.

We have no hesitation in saying that we believe this sale will comprise the largest collection of first-class stock—show animals and prize winners on both sides of the Atlantic—ever offered in this country at public sale.

Terms of Sale:

Six months time will be given on approved endorsed notes (interest at rate of six per cent. per annum). For cash in hand a discount of 5 per cent. will be allowed.

Waukegan is 35 miles north of Chicago, on Milwaukee Division of N. W. R. R. Trains leave Chicago at 8 A. M. and 9.45 A. M., and return in time for all trains leaving Chicago that evening.

Sale will commence at 10 o'clock, A. M., SHARP.

For Catalogues, giving full description, pedigrees, etc., address either of the undersigned.

WM. B. DODGE,
C. C. PARKS, Pres't.

Waukegan, Lake Co., Ills.

☞ On the day following, a public sale, from the **SLAUSONDALE HERD,** of GEO. MURRAY, Esq., will be held at Racine Junction, Wis., 25 miles north of Waukegan. mr1-eow3t

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down

SHEEP.



—ALSO—

THE ANGORA GOAT.



Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,

19v4-tf Hollister, Monterey County, Cal.

6,000,000 Pairs of SILVER TIPS

Sold in the year 1871, by which

$6,000,000 was Saved

To parents throughout the country.

POULTRY.

☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,
Spangled Gold and Silver Hamburghs,
Spangled Gold and Silver Polish,
Houdans, Buff Cochins, Silks, Black Spanish and Games.

M. FALLON,

Importer and Breeder of Choice Poultry,

Seventh and Oak streets, Oakland.

5v5-3m

EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,

6v5-2m Lock Box 1874, San Francisco, Cal.

Imported Fowl of All Choice Breeds,

ALSO EGGS FOR HATCHING,



From all the different varieties; packed carefully to send any distance.

ALBERT E. BURBANK,

Stalls, 43 and 44, California Market,

SAN FRANCISCO.

6v5-3m



PURE BRED IMPORTED FOWLS.

"Heggs for Atching."

White Bald Face Black Spanish, $2 per dozen; Light Brahma, $3 per dozen; Dark Brahma, $4 per dozen; Buff Cochin, $5 per dozen; Silver Spangled Hamburg, $6 per dozen; carefully packed and shipped free of extra charge. All kinds of fowls bought, sold or exchanged.

7v5-3m T. W. HAYNES, 418 Post street, S. F.

FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,

6v5-3m Stalls 103 and 104 California Market, S. F.

THE

PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

BEST SHADE IN THE WORLD!

The Rustic Window Shade.

This New and Elegant article of manufacture

Is Fast Superceding all other Styles of Window Shades in Use

Wherever it has been introduced and its merits tested.

It is made of Wood, is Light, Strong and Extremely Durable.

It Lowers from the Top or Raises from the Bottom,

And forms a complete and the only substitute for Inside Blinds.

When soiled it can be cleaned with water without the slightest injury.

Its fixtures are simple, work to perfection, and never get out of order.

Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

THE PIONEER FACTORY

No. 413 Mission Street, (Mechanics' Mill,) by

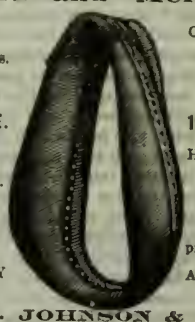
HOLLIHAN & BEARDSLEE.

☞ For sale by all Furniture and Carpet Dealers.

6v5-3m

Farmers and Merchants,

Examine our HORSE COLLARS. Adopted by **BEST IN USE.** ALL GRADES. No complaints. No repairing. Don't believe FOR SALE BY ALL DEALERS



COPPER RIVETED Pat. Nov., 1861. U. S. Army. **18,000 SOLD.** HEAVY & LIGHT. No ripping. Examine for yourselves. prejud'd parties. Manufactured only by

J. C. JOHNSON & CO.,

104 FRONT STREET, SAN FRANCISCO.

Dealers in **Harness, SADDLERY, Leather, etc.**

Liberal discount to the Trade. 19v4-3m

WILCOX'S

IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

H. K. CUMMINGS. 1858. H. H. HALSTON. 1873.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

Nursery Notices.

Los Angeles Nursery and Fruit Garden,

LOS ANGELES.....CAL.

O. W. CHILDS, Proprietor.

Desires to call attention to his large and desirable assortment of

Orange, Lemon, Lime and Citron Trees,

POMEGRANATE AND OLIVE TREES,

Including a limited quantity of ORANGE, Grafted and Budded on Lemon Stock.

HAS ALSO ON HAND,

50,000 Choice English Walnut Trees,

From 2 to 10 feet high. Price, $10 per hundred. And a very superior lot of

Italian and Spanish Chestnut Trees,

1 to 6 feet high, at very low rates.

O. W. CHILDS,
23v25-4m Main street, Los Angeles, Cal.

Kelsey's Nurseries,

OAKLAND,

Alameda County,.....Cal.

CITY DEPOT, 615 BATTERY STREET,

San Francisco.

[ESTABLISHED IN 1852.]

Containin the Largest and Best Assorted Stock of

Trees and Plants

On the Pacific Coast.

Embracing—FRUIT TREES AND PLANTS of all and every kind, SHADE AND FOREST TREES, EVERGREEN AND ORNAMENTAL TREES AND PLANTS, FLOWERING SHRUBS, HOT HOUSE AND BEDDING PLANTS, BULBS, Etc. Etc.

Send for Catalogues and Price Lists—Free on Application. 1v5-3m

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine assortment of

Ornamental Shrubs?

Then call at the

BELLE VIEW NURSERY,

Telegraph Road.....OAKLAND.

2v5-3m **S. NOLAN, Proprietor.**

Mulberry Trees for Sale

— BY —

I. N HOAG, Sacramento.

THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

For the Yard, for the Sidewalk, or the Roadside.

— ALSO —

Fruiting Mulberry,

Of all varieties, and for Silk Culture.

ALSO, FRUIT, SHADE AND ORNAMENTAL TREES,

Of every kind—grown in the best Nurseries in the State—for sale at the Lowest Prices.

Also, OSAGE ORANGE HEDGE PLANTS.

All orders promptly attended to. 26v4-3m

PACIFIC NURSERY,

Presidio Road, near U. S. Reservation (on the line of the Sutter street Cars), SAN FRANCISCO.

A Large and Well Selected Stock of New and Rare Plants for the

Greenhouse and Open Air.

FLOWERING AND ORNAMENTAL FOLIAGE PLANTS AND SHRUBS,

Evergreen Trees, Geraniums, Pelargoniums, Roses, Fuschias, Pinks, Gladiolas, Lilies, Coleus, Pansies, Primroses, in great variety. Also, Tuberroses, Verbenas, Cactus, Heliotropes, etc.

Orders from the country carefully attended to.

Address, through P. O.,

25v4-3m **F. LUDEMAN & CO.,**

Twenty Years in the Nursery Business in California.

A. D. PRYAL,

Nurseryman and Florist,

THREE MILES NORTH OF OAKLAND,

Near Temascal Creek.

Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental belts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, fit for forest culture; Oak Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A beautiful assortment of Roses and Lilacs; also Asparagus Roots.

All orders will receive prompt attention. Address

A. D. PRYAL,

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Fruit, Shade and Ornamental EVERGREEN TREES AND Plants for Sale,

At the old stand, corner Oregon and Battery streets, Directly opposite Post Office, SAN FRANCISCO.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants

Ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ERS FROM THE COUNTRY

Prom[illegible]y attended to and packed with care.

Send f[illegible] Price Catalogue.

AGENT FOR B. S. FOX'S NURSERIES, SAN JOSE.

Address, **THOMAS MEHERIN,**
516 Battery Street,
SAN FRANCISCO.

P. O. Box 722. f22-1m

King's Nursery,

ELM Street, between Telegraph Avenue and Broadway,

OAKLAND,

GREEN HOUSE PLANTS,
EVERGREEN TREES,
SHRUBS, ROSES, ETC.

100,000 MONTEREY CYPRESS.



A superior stock of large sized Australian Gum trees, including: — EUCALYPTUS GLOBOLUS (Blue Gum)—extra fine street and shade tree. EUCALYPTUS VIMENALIS—both sorts very popular. ACACIAS in variety. Monterey Pines, Lawson's Cypress, etc., etc. Orders attended to. Address

3v5-2m **. K G, Nurseryman, Oakland.**

500,000 Fruit, Shade and Ornamental Trees, Plants, Etc.

FOR SALE AT THE

CAPITAL NURSERIES, SACRAMENTO.



Having a very large Nursery Stock, I can furnish Trees and Plants of all kinds cheap. Fruits guaranteed true to name. Send stamp for printed Price List, Catalogue, and instructions for hedge-growing. A large stock of Osags Orange Hedge Plants for sale. Letters of enquiry promptly responded to. Office and MAIN Tree Depot, U street, between Fifteenth and Sixteenth, Sacramento. Branch Yards, Sayles & Williamson, J street, Sacramento; Burney & Williamson, Modesto; and W. T. Wright, Agent at Colusa.

ROBERT WILLIAMSON,
25v4-3m Proprietor.

Bay Nursery,

[ESTABLISHED 1852.] OAKLAND, CAL.

Office and Depot..... .....Broadway and Thirteenth. Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Co[illegible] Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarins, Weeping Cedars, Golden Arbor Vitæ, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rare merit. Tube Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m **JAMES HUTCHISON.**

TREES AND PLANTS FOR SALE

— AT THE —

LIBERTY NURSERIES,

Petaluma.

I offer at moderate prices a general assortment of

FRUIT, SHADE AND EVERGREEN TREES, AND SHRUBS.

Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

Send for Descriptive Catalogue and Price List.

Address **W. H. PEPPER,**
15v4-6m Petaluma, Sonoma County, Cal.

THE OLD

Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL DECIDUOUS TREES, GREEN and FLOWERING SHRUBS; also a large assortment of Choice ROSES too numerous to mention. Green House Plants, Flowers and Bulbs, Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
12v3-tf Washington street, Brooklyn, Cal.

100,000 AUSTRALIAN GUM TREES,

Including all varieties—OUT-DOOR grown, healthy and strong. In good condition for transplanting and transportation. For sale at $5 to $10 per 100. Grown at Fitchburg, between Alameda and San Leandro.

Address, **HENRY S. FITCH,**
3v5-2m 506 Montgomery Street.

RAMIE PLANTS AND CUTTINGS

FOR SALE,

IN QUANTITIES, at the LOWEST MARKET RATES.

Inquire of **J. . SWEENEY & CO.,**
Seedsmen,
409 Davis Street, S. .

Or JOSEPH GRAHAM, Haywards, Alameda County.
f15-1m

1000 EASTERN CHESTNUT AND BLACK WALNUT

FOR SALE AT

J. P. SWEENEY & CO.'S SEED WAREHOUSE,

No. 409 d 411 Davis street, S. F. mr1-9t

RAMIE, RAMIE.

THE LARGEST STOCK IN THE STATE AT

H. ALLEN'S NURSERY,

Ccr. McAllister and Buchanan Sts., San Francisco.

Being Agent for the Pacific Ramie Co., and having the largest stock in the State, is enabled to offer extra inducements to purchasers. Orders left at Collie & Stewart's, 18 Post street, or addressed direct to H. Allen, corner McAllister and Buchanan streets, will be promptly attended to. fe22-3m

PLANTS! PLANTS!

60,000 Evergreen and Flowering Shrubs

AT GREATLY REDUCED RATES.

Those intending to embellish their grounds will find it to their advantage to examine my stock and ascertain prices.

DAVID NEELEY,

Golden Gate Nursery, corner of Folsom and Twentieth Streets, San Francisco.
25v4-3m

1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

Send us your address and get our Descriptive Catalogues and Price Lists. Address

HARGIS & SOMMER,
Star Nurseries,
26v4-3m Quincy, Illinois.

BRIER'S LONGUEDOC ALMOND TREES,

At Reduced Rates.

$20 per 100. Thrifty trees, 1 year old, from the bud. Dormont Bud Trees, $10 per 100. Send orders to

1m W. W. BRIER, Aivarado, Alameda Co., Cal.

Superior Fruit Trees, Shrubs, Flowers, Etc.

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At the numerous Sunday School conventions and institutes which I attend, I generally find some portable reed instrument, good or bad, old or new. The Mason & Hamlin are the sweetest-toned, the most manageable, and, even when they bear the mark of age, the most reliable, and least liable to get out of order. The advantages of the Automatic Swell are not approached by the swell arrangements of any other make of instrument.

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FIRST-CLASS CARVED LEGS,

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With all Modern Improvements,

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Since the Vast Improvements in these Organs in the last twenty years, they have become

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It is estimated that 40,000 of them are sold yearly in the United States. They widely vary in size, capacity elegance and price, having from one to twenty stops; price $65 to $500 and upwards, each. They are very durable, do not require tuning, are adapted to all varieties of music, and are so packed that they can be sent anywhere by ordinary freight routes, all ready for use.

WHOEVER PURCHAS S A CABINET ORGAN,

Or any instrument of the class, without obtaining the new

Illustrated Catalogue and Testimonial Circular of the

MASON & HAMLIN ORGAN CO.,

Acts without reasonable prudence and care. These pamphlets are sent free, and post paid, and contain a vast amount of information about such instruments, which may prevent disappointment in the purchase of inferior or worthless instruments, or the payment of high prices.

The Mason & Hamlin Company Make only the Best Work,

And the quality of their Organs is too well known to be questioned. They are declared by musicians almost universally to be unequalled, and

HAVE ALWAYS BEEN AWARDED HIGHEST PREMIUMS AT INDUSTRIAL EXHIBITIONS, INCLUDING A

MEDAL AT THE PARIS EXPOSITION.

Of hundreds of such comparisons there have not been half a dozen altogether at which any other instruments have obtained a preference over them. The Mason & Hamlin Cabinet Organs are the ONLY American musical instruments of any class which have obtained a large sale in Europe, notwithstanding the difficult competition there with cheap labor.

While the SUPERIORITY of the Mason & Hamlin Organ is hardly disputed, it is not so well known that

THEIR PRICES ARE NOT HIGHER THAN THOSE OF MANY INFERIOR ORGANS.

This is because the Company, having occasion to manufacture more extensively than any other makers, have been able to avail themselves of extensive machinery, and other extraordinary facilities, by which they are enabled to produce not only BEST WORK, but this at LEAST COST.

TESTIMONIAL CIRCULARS, with Opinions of more than 1,000 Musicians, and ILLUSTRATED CATALOGUE, Free.

Opinions of Eminent Musicians.

From WASHINGTON ELLIOT,

Director of Music, Unitarian Church, San Francisco.

Every professional or amateur musician should own one of Mason & Hamlin's Cabinet Organs, now that they have reached such a high degree of perfection, and can be obtained at so little cost. The quality of tone of their Instruments is wonderfully clear, rich and full; the action prompt and easy.

WASHINGTON ELLIOT.

From J. H. DOHRMANN,

Organist of St. Patrick's Church, San Francisco.

I am delighted with the tone of the new Cabinet Organ in Resonant cases. The improvement in the quality and fullness of tone is remarkable. The Mason & Hamlin Organ Company are certainly ahead of all competitors.

J. H. DOHRMANN.

From LOUIS SCHMIDT,

Organist of Trinity Church, San Francisco.

I have always considered Mason & Hamlin's instruments the first of their class, but I was not prepared for the astounding improvements and rare excellence of their Resonant-case Organs. Their superiority cannot be questioned by any organist.

LOUIS SCHMIDT.

From GUSTAV A. SCOTT,

Organist First Unitarian Church, San Francisco.

With pleasure I add my testimony to that of thousands of American and European artists in recommending the MASON & HAMLIN ORGAN to the public, as superior to any other reed organ, either in Europe or America. Their recent improvements, in my judgment, have great merits, and still further strengthen their claim to superiority.

GUSTAV A. SCOTT.

From EUSTACE HINTON JONES, Esq.,

Organist, &c., Southampton, England.

DEAR SIRS:—My Eight Stop Cabinet Organ, in Resonant Case (No. 46), and with Vox Humana, gives me more pleasure than I can express. The quality of tone is exquisite. How such purity of tone can be got out of reeds is a perfect marvel; it is comparable to nothing but the effect of a large and powerful pipe-organ heard at some distance. Indeed, for capacity for delicate effects of light and shade, from full power down to the softest whisper which the ear can hardly catch, but listens for intently because it is so precious, it has advantages which even a pipe-organ has not. To compare it to a harmonium is to compare an Amati violin to a hurdy-gurdy. I tried one of Debain's very best concert harmoniums after it on Friday, and it jarred all my nerves with its buzz. The tone of the Mason & Hamlin Organ spoils the ear for anything less pure than itself.

There is all the difference between putting a reed on a piece of board and expecting to get tone out of it (as other makers do), and Mason & Hamlin's plan of fixing a *voiced* reed in a chamber over a resonant sounding-box. It is the same difference as between stretching a violin string on a bit of stick, and straining one over the resonant body of a violin.

It has not one single defect common to the best of harmoniums. The base does not overpower the treble. There is perfect equality in all the tones. The rapidity of touch (without the miserable expedient of percussion action) is superior to a pipe-organ, being so much lighter even when coupled, and is almost up to a Broadwood piano. It is a splendid accompaniment for singing; and I regard as a conclusive proof of its merit the fact that even at full power it does not drown a single voice—the tone is so true. Nobody ever yet heard a powerful harmonium that was not overpowering.

I have exercised my organ at all sorts and styles of music, from the Requiem Mass down to polkas and Irish jigs. It will do almost any mortal thing between these two extremes. I can't find a fault with it anywhere. The Vox Humana is a very beautiful addition to the instrument. I am delighted to find it is no trickish effect like the Tremolo and the Voix Celeste, of which one soon gets tired, but imparts a very rich and sympathetic modulation to the stop with which it is used, such as the violin string derives from the bow. Besides this, it adds unmistakably to the brilliancy of the organ.

The Resonant Case is a capital addition—it makes the whole instrument ring again after a chord. I was certainly afraid that an organ of such capacity would be too much for my small room, which is only twelve feet square. But it is not—and this is not on account of any deficiency of power in the organ, but because of its exquisite quality of tone; for the same reason, in other words, that it does not drown voices.

The imitations of instruments are remarkably good; but I must say in the case of the piccolo and flute, it is a libel on the organ to compare these two effects to the notes of either piccolo or flute. Your piccolo is so lovely; and the flute is—well, Orpheus had a good flute, and drew his wife out of Hades with its tones; but I'm inclined to think he might have even drawn her out of the other place to listen to MASON & HAMLIN'S.

You are heartily welcome to print this note. I am sure any lover of music will be grateful to any one who recommends them a MASON & HAMLIN ORGAN.

Address, KOHLER, CHASE & CO., Agents,

633 and 635 Clay Street, - - - - - - - - - - - - SAN FRANCISCO.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MARCH 22, 1873. [Number 12.

Thoroughbred Stock.

The Forthcoming April Sales.

A correspondent in March number of the *National Live Stock Journal*, speaks as follows of the first pnblic sales of the season, to take place next month:

The public sales, including the entire "Woodlawn" herd of Hon. W. B. Dodge and drafts from the "Glen Flora" and "Slausondale" herds, of Messrs. C. C. Parks and Geo. Murray, to be held at Waukegan, Illinois, and Racine Junction, Wisconsin, Wednesday and Thursday, April 9th and 10th, promise to bring together a larger number of breeders than have ever attended a single series of sales in this country. And this is not to be wondered at, since the sale catalogues, while including a proportion of animals within the reach of breeders of moderate pretensions, include, also, an unusually large number of animals belonging to families which the very best breeders of the country are anxious to place in their herds. Such families as the *Mazurkus*, the *Louans*, the *Minnas*, the *Miss Wileys*, or Lady Clarkes, the *Moss Roses*, the *Victorias*, the *Constances*, and others which we could mention from these catalogues, and such grand cows as "Henrietta," "Lady Brough," "Countess of Oxford," eto., are sure to command attention and appreciative buyers wherever offered.

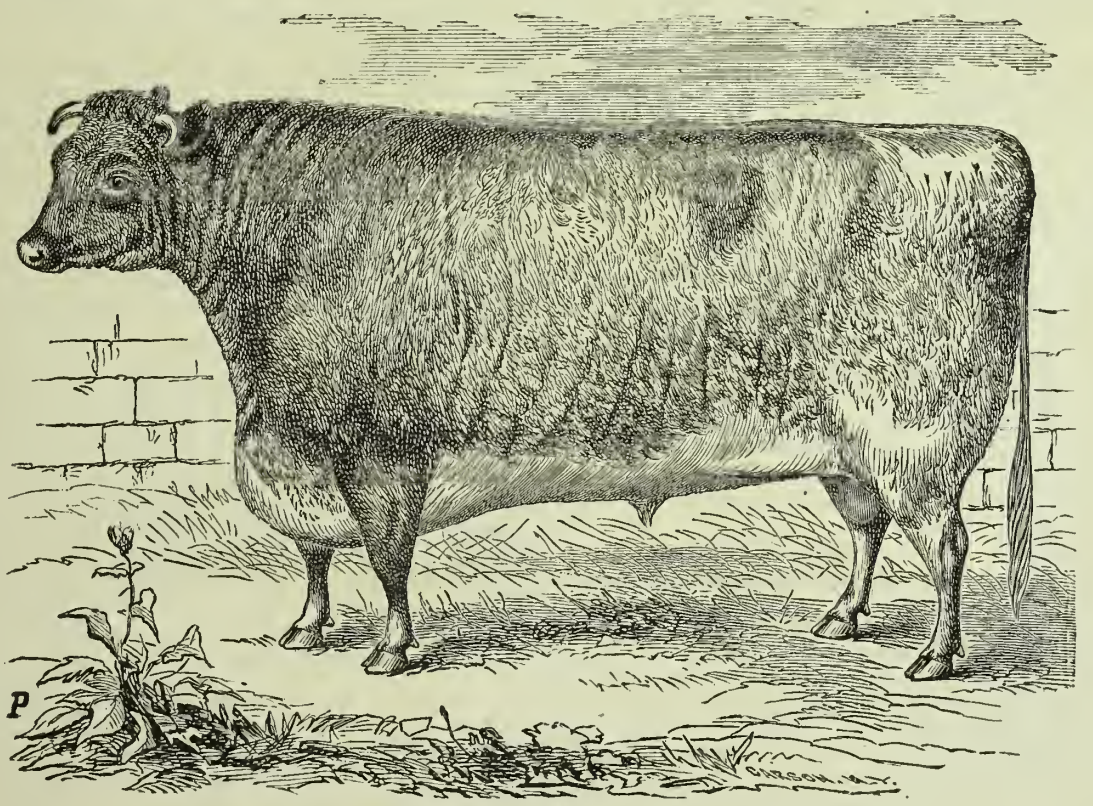
One particular feature of these sales which will challenge attention, is the bulls which will be offered. Among the 120 animals to be sold, are a fair proportion of bulls, which are remarkable for the uniform excellence of their breeding. There is to commence with, three approved sires—"Seventeenth Duke of Airdrie," and "Minna Doles Airdrie," who have for so long been respectively at the head of the "Slausondale" and "Woodlawn" herds, and whose numerous progeny of fine quality attest their valuable breeding powers, and imported "Scotsman—whose truthful portrait illustrates this page ot the RURAL—ED.—a prize winner in the old country as well as upon this side of the Atlantic, concerning whose get Mr. Gibson the herdsman in charge at "Lyndale," Minneapolis, speaks so highly. Then, there are numerous younger animals of fine breeding and great promise, including one from the celebrated cow "Booth's Lancaster." Breeders who desire bulls of approved blood to place at the head of their herds, will find here an opportunity for selection such as is seldom offered.

J. R. Page, Esq., whose opinion on such matters is entitled to the fullest confidence, says of the stock to be offered at these sales:

"The Shorthorn sale, season of 1873, opens on April 9th, with a rich and attractive lot offered by Messrs. C. C. Parks and W. B. Dodge, at Waukegan, Illinois. Mr. Dodge having sold his farm, offers his entire "Woodlawn" herd of a little over 50 head, old and young, male and female. To which Mr. Parks adds a selection of about 36 head of the very best animals in the "Glen Flora" herd, including all his show animals of last year. And on the next day—that is April 10th—Geo. Murray, Esq., at Racine Junction, Wis., a few miles further on, on the same line of railroad, will offer some 35 head from the "Slausondale" herd, mainly of his own breeding, and including his grand bull "Seventeenth Duke of Airdrie," and many of his get.

The bulls to be offered are all well-bred and mainly young. The well-known imported prize bull "Scotsman," that grand bull the "Seventeenth Duke of Airdrie," and Mr. Dodges "Minnie Doles Airdrie" head the list. It is rare indeed that buyers have snch good lots to select from as these offered by Messrs. Dodge, Parks, and Murray, and we trust those in need of good additions to their herds will avail themselves of the opportunity."

Probably no better opportunity will offer during the whole coming season, for California breeders of blooded stock to purchase superior animals for the improvement or increase of their herds, than is presented in this forthcoming sale, and we are quite certain it will command their attention and presence.



IMPORTED SCOTSMAN, (27,435.)

Plaster for Potatoes.

One of the prize essays in Report of the Department of Agriculture for 1870 is that of D. A. Compton on the value of plaster in growing the potato. He says: Astonishing results are obtained from plaster, by dusting the vines with it as soon as they are fairly through the soil; again immediately after the last plowing and hoeing; and at intervals through the whole growing season. The first application may be light, the second heavier and after that more bountiful, say two hundred pounds to the acre.

The action of plaster is not easily explained, but the results are undoubtedly beneficial, particularly in seasons of extreme drouth. It renders plants less palatable to insects, and appears to be fatal to many of the fungi family. The vines retain a bright, lively green color, and the tubers continue swelling until growth is stopped by the frost; besides, potatoes thus grown are so sound and free from disease as to be easily kept for spring market, without loss by rot.

Mr. Compton has seen a field, all of the same soil, all prepared alike, and all planted with the same variety, at the same time, on one-half of which, that had received no plaster, the yield was sixty bushels per acre, and many rotten; while the other half, to which plaster had been applied in the manner above described, yielded three hundred and sixty bushels per acre, and not an unsound one among them.

PURE-BLOODED MERINOS.—R. Blacow, a well-known California breeder of pure-blooded stock, offers for sale, as per notice in another colnmn, pure-blooded French Merino sheep and young bulls of the Durham blood.

Hothouse Growth.

One of our Eastern exchanges having succeeded in creeping out from under its snowy covering and making its way to our office, indulges in the belief that the stories told of the early fruits and vegetables of California, if not entirely the offspring of the imagination, are simply the products of hothouse culture, that anybody can obtain by incurring the expense of heating aparatus and greenhouses.

The editor of that paper, poor soul, we pity him, and if he was here to-day, March 17th, we would take him only 200 feet from our office and show him thousands of pounds of rhubarb, asparagus, green peas and new potatoes. Now we never grow such vegetables as these in hothouses in California, if they do at the East; and strawberries, what of them? Why dozens of baskets of rich lucious berries at our Market street fruit stands, with cucumbers by the hundred dozens. And these strawberries grown in the open air with no other heat than that of the sun. We wish our highly respected snow-blanketed editor would come and see us; we will agree to show him all we have mentioned and much more.

SWEET CORN.—An attempt is being made to popularize Chinese corn in California. It has been planted in one or two instances, and is said to come quite up to its recommendation. The ears contain thirty-two rows of grains, and the stalks generally eight ears each. It is a sweet corn, and is largely used in the Southern and Western States for the table. A number of California farmers will probably put in small experimental crops of this corn the coming season.

EUCALYPTUS.—Doctors are finding new uses for the Blue Gum tree. It appears that the natives of Australia use it as a styptic, in dressing bleeding wounds. French papers inform travelers that Eucalyptus cigars are sold at the railway stations, for the relief of asthmatics and consumptives. It appears that a preparation from the leaves and bark is being preferred by many physicians, as a substitute for quinine.

Peanut Culture.

We are a peanut eating people, and every year showing an increased consumption and a corresponding increase of production, till the peanut has become one of the staple products of the State. But not with us alone is its value recognized. Mr. Thomas Pleasants, of Petersburg, Virginia, in a paper on the diversity of vegetable productions—reference being chiefly made to their suitability for that State—has called attention to the value of this nut as an article of food suitable for cultivation in the southern counties of Virginia, and states that under careful and judicious management it will yield from 60 to 80 bushels per acre, worth there from $2.00 to $2.50 per bushel.

As there are many portions of other States, and we might say particularly California, equally favorably situated for the growth of this nut, and as many applications have been made to the agricultural department at Washington to ascertain what mineral elements were neccssary for its successful growth, an analysis of the husk and nut has been made.

The weight of the husk is to that of the seed as 1 to 16. The ash of the seed consists of salts wholly soluble in water, they being phosphates or the alkalies, with traces of alkaline chlorides and sulphates. The phosphoric acid is chiefly united with potassa. The ash of the husk differs in containing chiefly common salt, and phosphates of lime and magnesia.

The amount of oil which the nut contains is very large; it varies according to latitude and other favorable conditions; and in the south of France and other countries of Mediterranean Europe the seeds are pressed to obtain the oil, which is applied to table use. The *marc*, or pressed cake, is used both as food for cattle—in which it resembles linseed cake—and also is exported to Great Britain for use as a manure. If any surplus remains after sending the nut to market, it might be used as winter food for cattle.

As the whole of the oil and albumen lie in the nut and not in the husk, there is little nutritive material in the latter The most of the French cake is derived from seed grown in Algiers, where the plants flourish vigorously, and afford much more oil than those grown in this country. It is possible that the farther south the nut is grown the more oil will be developed in the seed. The Algerian growth furnishes 25 to 27 per cent.

The large amount and variety of soluble salts contained in the plant, husk and nut, clearly indicate the adaptability of our alkaline soils to the production in perfection of this comparatively easily cultivated nut, and the amount of oil it contains—being one-fourth of its weight—is evidence of its fattening quality as animal food, and its value for table oil whenever a surplus over what is needed for direct consumption should occur.

FLOUR OVERLAND.—The proprietors of the Marysville Flouring Mills, it is stated, have made a contract with the Central Pacific Railroad Company for carrying 5,000 barrels of flour to New York, which it is believed will pay a fair profit.

CORRESPONDENCE.

Southern California.

EDS. PRESS:—San Diegoans may well be jubilant, for Pluvius is in the ascendant; over five inches of rain and more lalling. Notwithstanding the three years of failure, everybody that can get seed and feed is plantiug or have planted; a larger acreage than has ever been put in this part of the State, goes in this year. There are five thousand acres on the "Cajon," three hnndred at Warsacks, probably 1,000 acres more in that neighborhood, several hundred acres at San Pasqual and near Julian, and at Warner's the acreage will reach into the thousands. Most of the grain is up and looks well; the earliest looks best. Some already covers the ground. The inhabitants of this county possess one element not nsually taken account of by the Assessor, but intrinsically worth very much in a new country where everything is to be done and but little to do with—that is persistence. Is it not a beautiful sight to see men after losing three crops, go and plant in the dust? Undoubtedly many of them will reap a more valuable harvest than all those three years plantings in some States east of the Rocky Mouutains—with their usual crops.

There are some speculative highflyers about town, who bet on the rise or fall of coruers, and who ridicule the workers hereabouts. There is one man who has received an nnusual share of that commodity from the do-nothings. I visited this man's place this week; it is on the Sweet Water, seven miles from town. Knowing nothing of soils Mr. Higgins employed an expert to analyze before purchasing; the result is already striking, and no doubt will be more satisfactory in one or two years.

Orange, lemon, grape, fig and many other kinds of trees and vines have been planted and are growing as thriftily as in any part of the State, yet this man took a piece of land which most people said would produce nothing but sage brnsh.

Now another Chicago man, Mr. Whitney, has bought 80 acres alongside of Mr. Higgins, and is going to do likewise. Instead of grumbling that they had not an Eden ready made, they go to work to make it. Employment is one of the essentials to happiness, and the more useful that employment, the better; so think these men, altbough they might both live in comparative idleness if they chose.

As we were born in a mountainous region, that kind of country is always attractive to us, therefore when we are free to do so, the mountains are sought. On the 24th, your correspondent left the city of San Diego to visit the ranchos and mines in the highest portion of the county; that night the rain fell steadily all night—over one inch near the Bay, and as much as four inches in higher localities. One of the reasons why a less quantity of rain will answer to protect a crop in this county, is that many of the valleys are so surrounded by rocky hills or mountains that shed all their moisture into the valleys; another is the peculiar constitution of the soil, with the utmost affinity for moisture consistent with productiveness. To illustrate the difference between the mountains and plains near the ocean in the amount of rain fall, we here record an incident of a painful nature which occurred during the last rain storm. An esteemed lady, Mrs. Annie Ward, a woman of marked literary and artistic tastes and ability, desired to visit the farming and mining region about Julian, took passage on Monday last by stage; the rain increasing to torrents on Monday night the stage becoming embogged in the road four miles from Julian, Mrs. Ward and a Mrs. Millne alighted to walk to a house a few rods distant, stumbled or waded into a creek (Coleman's) in the obscurity and were washed away and drowned. Meeting the express with Mrs. Ward's remains on board at Duckets, we were so shocked at this unlooked for calamity, (the lady being an old friend with whom we had spent the Sabbath evening previous), we changed our route and turned off to avoid the scene of the disaster.

Turning to the northward through the Ysabel Ranch, we pass for three miles through a narrow valley to Warner's Rancho. This is one of the most beautiful valleys in the State, surrounded on all sides by mountains of such conformation and color as to give diversity. The main or valley proper is nearly square, and say 15 miles in width, with the corners pointing to the four cardinal directions. As the main valley opens to view, Smith or Mount Palomare on the north with the road winding up the ridge of one of its many corrogations comes to view. This Smith's Mountain as it is better known, is one of nature's most beautiful works, showing on its southern face a grand terrace, say 2,000 feet above the valley, whereon are grown the finest grains and fruits ever produced in any land. Timber and water in abundance. Enclosures fenced with split cedar rails. But most of the space is in an unimproved condition from its inaccessibility. What is known as the old Warner place is not in this main valley which is overlooked by this magnificent terrace, but is an arm extending toward San Felipe to the southeast. In all this and the valley of the Santa Ysabel is not a human habitation, if we except the "Digger," which is at present occupied. This wide and beautiful domain so fitted for the sustenance of thousands of industrious husbandmen, is under a bane, that of the "great incubus." On the southwest is the Mesa Grand with its wooded and grassy slopes, under which the rancherias of the few remaining Indians are nestled. On the east is the bare and rocky crest of the Agua Callicnte, and on the south the Volcan Mountain, on the top of which is an inclosed rancho. Thus it will be seen that no place however forbidding is untenable, but from "man's inhumanity to man," which leaves these fertile valleys to the mustang herds, compells the settler to seek the eyries where the eagles perch. Ten miles from the northeast corner of Warner's, following through a gap on the east flank of Smith's Monntain, we come by a deserted Indian village occupied by one very old squaw who was left there alone to perish, probably with old age; to Oak Grove, the residence of the Kennistons, an oasis both earthly and human, where the mind and body of man or beast may be refreshed. There is say 500 acres of grazing and grain land in this little nook, one hundred miles from any place; 15 acres of this is irrigated and produces anything planted thus far. The present proprietors combine agriculture, horticulture and stock-raising, and will no doubt be successful, as they should.

Ten miles from Kennistons' is Bergmanns', another little oasis, for this is bordering upon the desert region stretching eastward to the Colorado. There are plants and shrubs which indicate this, among them the mesquite and wild wormwood commonly called sage the former quite valuable for its long sweet and nutritious bean pods with small doubly enclosed bean or kernel (of which I enclose a sample incomplete). Both Bergmanns and Kennistons are putting out orchards and vineyards, while on the terraces of Smith's mountain which overlooks them, and is as inaccessible from this direction as Gibraltar, are grown some of the best pears, peaches and grapes in the State. This bold and impregnable ridge is isolated from all surrounding ranges and stands alone in its grandeur and beauty, its crown and northern flanks covered with perennial verdure, the sharp cañons studded with piue, fir, cedar and live oaks, and the projecting angles overlaid with chemizel and manzanita. The clouds linger lovingly about its brow this beautiful day when rain and sunshine combine to bring out the coloring of the sky, earth and vapor, and makes a picture one leaves with reluctance. F. M. S.

San Diego, March 1st, 1873.

Washington Territory.

Stories and Facts Compared.

In traveling through Washington we made it a point to read carefully all that we could find descriptive of the country and compare it with what we saw. A few notes on this topic may not be without interest to some who are in doubt as to how much allowance they should make for newspaper stories and advertising pamphlets.

Population Needed.

This section of the county has great resources undeveloped and population and capital are in great demand. It is especially for the interest of the railroad companies that these should come and they have made extra exertions to give a good idea of the country, both to induce immigration and to establish confidence in the security of their bonds. Perhaps those who take into account the interested motives of the writers are disposed to make too much allowance for their accounts. Yet, from conversation with those just arrived in the country with a special object of finding ont what ideas they had formed. we found that many had taken the facts that suited them and painted in their imagination such a country as they would wish to find. Of course, such were sadly disappointed.

A Sad Case.

One in particular had arrived at Olympia with his wife just as the rainy season began. He had used up all his money in coming and about the close of the second day was lamenting with doeful countenance that he could not return and did not know what to do. He expected to locate a half-section claim on rich prairie land reaching down to the sound and near the terminus of the railroad, with a fine stream running through it, and 40 or 50 acres of timber that would cut from 300,000 to 400,000 feet of clear lumber per acre. He would find plenty of game and all sorts of fruit not far away. Plenty of claims were to be taken up, there were prairies and fertile land and forests of heavy timber and fine streams and plenty of game, but somehow hardly any two of these advantages were to be found together, and the country that he had seen on the railroad from Kalama to Tenino and thence on the stage to Olympia, were mostly forests that had been destroyed by fire, and generally prairies that were nearly barren. Perhaps he could not have traveled 80 miles anywhere in the Territory and received a worse impression. He did not go to the Land Office to find out what kind of locations were to be had, nor did any of the citizens take the trouble to point out locations where he would be likely to be suited. Next morning he had concluded to hire out for the winter and at noon was quite cheerful as he had made an engagement by which himself and wife were to receive $70 per month and board for the winter. At night he was as dismal as ever for he had three chances to hire out during the afternoon and might just as well have had $100 per month as not.

If ordinarily fortunate they will probably have a good home all paid for in 5 or 6 years, but if he had money he would have surely turned his face homeward and reported that Washington Territory was a fraud and humbug.

Many a one does thus return, and we think it would be safe to say that every such one is instrumental in keeping five from coming. The route by which immigrants naturally enter the Territory is calculated to give them the worst impression, and we are inclined to think that money for the encouragement of immigration might be well spent in employing persons to meet and welcome new-comers and direct them where to find such advantages as they are in search of. Many come with exaggerated and wholly unreasonable ideas; but most of them would find chances where they could do quite as well as elsewhere. Where money commands regularly two per cent. per month on good security, and the most ordinary labor $30 to $40 per month the year around, business must pay.

Accounts Fair and More Than Fair.

A part of the accounts that have been written were extremely fair and carefully stated; a part stated the favorable side of the question and stated it in none too glowing colors, and a part were written by those whose chief care was to make the account sound well, and who were accustomed to use figures carelessly. With such, a million means a large number, and ten tons of hay per acre a good crop. They may be styled figurative writers.

We could endorse the statement of facts generally found in the railroad pamphlets. Of course each one has as good a right to make his deductions from those facts as the writers. What the Territory is to be in five years or ten years may as well be your guess work as theirs.

Meeker's Pamphlet.

A pamphlet by Mr. Ezra Meeker has been largely circulated and largely extracted from. This was written with extreme care and reliability. Those who gain their ideas from this and are as careful to consider the objections as the advantages of the country, will not be deceived.

Policy and Truth.

We noticed that with many of the settlers the idea was to encourage anything that will induce people to come, and when they get here some will find it worth while to stay, and some won't have money to get away. Perhaps such a policy may settle up a country most rapidly, but we can have no respect for it or for those who would pursue it.

Remarkable Features of the Country.

The waters of Puget Sound are remarkable, the timber wonderful and the land of the river bottoms very fertile. But let us remember that 40,000 feet of lumber per acre is a pretty good average for a timber claim anywhere, and that three tons of hay per acre is a good crop. Good land will not produce many times more in one section than good land does elsewhere. When a writer makes an extravagantly good case, it is well enough to allow a little; nineteuths for instance. On the other hand we can judge from the accounts of other writers that they will "do to freeze to." C.

Jute Experiment.

EDITORS PRESS:—I see in a recent number of the PRESS, in proceedings of the San José Farmers' Club, Mr. Cadwell enquires about jute seed. He can obtain it in small quantities by writing to the Department of Agriculture, Washington. Perhaps the Club could obtain larger quantities.

Mr. A. G. Kimbell will make as thorough an experiment as he can with a small quantity of seed—one quart—on his reclaimed land on the San Joaquin, which to all appearances is well adapted to the production of jute.

Mr. Kimbell will keep an exact account of labor and expense, and product, and if he succeds in growing it and preparing the fiber he will have the fiber tested and valued by the Jute Manufactory at Oakland, so as to be able to compare cost and proceeds.

If a few more will make careful experiments with jute we can soon know whether we must continue to import millions of dollars worth of bags or whether we can produce them at home. If the experiments succeed, it can be known in time this fall, to send to Calcutta for seed.

Directions for planting, and for improving the fiber, are given in the report of the Department of Agriculture for 1871, but it does not give the quantity of seed required per acre, nor time of sowing. Probably must be sown after frosts are over and about as thick as hemp.

Can any one tell me how to succeed in grafting the English walnut on the California wild walnut. FARMER.

We hope there are others who will institute similar experiments in the culture of jute the coming season, and report their experience through the PRESS. The interest in jute culture is now but little less than that on the sack question, the former being the principal material from which the latter are made. For method of grafting the walnut, turn to RURAL PRESS of August 24th, 1872.

Decision in Regard to Swamp Land in California.

A letter has been addressed to the Commissioner of the General Land Office to the Surveyor-Geueral of California, establishing important principles in regard to swamp land grants to various States under the Act of July 23d, 1866. The questions decided hereby arose in reviewing the action of the Surveyor-General of California on a large tract of alleged swamp land, known as Big Meadows, and situated in a valley in the Sierra Nevada.

Commissioner Drummond says: "In your report you refer to the altitude of the lands under consideration. As the same point was made by the attorney and considered by you as a reason for rejecting the claim of the State in the Sierra Valley case, and also in that of Mountain Meadows, I again allude to the subject for the purpose of saying that it makes no difference how high or elevated the lands may be, if they are in fact swamp or overflowed, and rendered unfit for cultivation by water flowing from surrounding lands still higher.

While very low lands may be perfectly drained so as to be susceptible of cultivation, marshes and lakes are found in most elevated regions, and dry lands in low valleys; therefore each case must be decided upon the facts. The question to be determined is not one of altitude, but of quality. If elevated lands are found to be swamp or overflowed, and thereby rendered unfit for cultivation, they must be awarded to the State under the grant; and if low lands are found to be dry, the claims of the State must be rejected.

"Another point urged by the attorney, and considered by you as a cause for rejecting the claim of the State, is that the lands produce wild grass, which is valuable for pasturage and hay. Natural productiveness has no bearing upon the question except as evidence tending to show the character of the lands; and the fact that the lands produce wild grass fit for pasturage or hay is not evidence for or against their swampy character, unless we take into consideration the kind of grass produced. Some kinds of grass grow on dry lands only; others grow on swampy lands only.

The question to be considered in this connection is, not whether the lands in a natural state produce something of value, but whether they are so swampy or overflowed as to be rendered thereby unfit for cultivation. If they are, they go to the State, under the grant, however valuable their natural productions may be. But if they are in fact dry, they do not inure to the State, although they may be unproductive and worthless. A tract of land may be very valuable for its timber, its wild grasses or cranberries, and yet be clearly and unquestionably swampy or overflowed and unfit for cultivation until drained or reclaimed.

A cranberry marsh may in its natural state enrich its owner, and yet be so swampy as to render it impossible to cultivate the land. On the other hand, a tract of land perfectly dry may be unproductive and utterly worthless. Therefore I think it is clear, that while the natural state or condition of the land is to be considered as determining the right of the State, the kind, quality, or nature of its natural productions are not matters of consideration except so far as this may be evidence of the character of the land.

"Another point urged in these cases against the claim of the State is, if the lands should be drained, irrigation would become necessary to the production of crops. This is a virtual admission of the fact that the lands are swampy, and I cannot see how irrigation or anything else necessary to cultivation after reclamation can affect the right of the State to them under the grant, if they are swampy or overflowed in their natural State.

The attorney opposed to the State asserts that irrigation is a part of cultivation. He is undoubtedly correct. Therefore it would be just as unreasonable to decide that the lands are not swampy, because it will become necessary to plow them after they are drained to make them productive, as it would to decide that they are swamp lands because irrigation will become necessary for the same purpose.

The testimony fails to show that other crops than grass could be produced, if the land were reclaimed. On the contrary, it is in evidence in all cases investigated in regard to similar lands, such as the Sierra Valley and the Monntain Meadows, as well as land now under consideration, that good crops of potatoes, oats, beans, peas, barley and even wheat can be grown successfully, and had been grown on such lands as were free from water early in the season."

After a careful examination of the evidence, Commissioner Drummond approves the California Surveyor-General's decision that some 6,280 acres of the tract in controversy are not swamp and overflowed, within the meaning of the Swamp Land Act, and that 680 acres are swamp lands. In regard to the remaining 1,420 acres, Drummond reverses Hardenbergh's decision, and decides that they are also proved to be so overflowed in a majority of seasons as to be unfit for cultivation, and must be awarded to the State.

This decision affects large interests of the Central Pacific Railroad Company, as much of their land involved in similar controversies will be included in their land grants if not patented to the State of California as swamp and overflowed.—*Call.*

HOME AND FARM.

No Time.

[Written for the PRESS.]

EDITORS PRESS:—In this wonderful age of enterprise in which the laudable principle of progress is most notably exemplified, it is rather astonishing that individuals are found who are continually telliug what they are going to do, yet never accomplish, simply because they "haven't got time." And to no class is this more applicable than to a portion of the farming community of our Golden State.

There is a class of farmers whose ideas of what should be done, soar far above those of others. They are always planning, for next season their ground is to be properly tilled; but harvest time rolls around, and it is the same old story, the ground has been literally skimmed, and everything subservient of good farming is lost for want of a little time, wherein to farm more scientifically.

That little cottage remains the same as when first built; that same gate creaks and groans on the same broken hinge; that apology for a garden may be a few rose bushes scattered promiscuously; that broken window pane; that dilapidated fence, tend to give one's home an air of shiftlessness. Yet they intend to remedy these defects, it was impossible to get time today, and it was put off till to-morrow; but alas! with them does to-morrow ever come? We apprehend not. We should reflect and reform. It is obvious we cau find time if we wish to. There is to much of this "going to do." Let us pay a little more attentiou to beautifying our farms, devote a little more time to gardening in its proper sense, plant ornamental trees, train sweet honeysuckle and ivy upon our trellis, and endeavor to vie with our neighbor in establishing comfort and cheerfulness, and our homes will grow into a beauty that will speak touchingly of our industry.

Probably there is a school in the vicinity, but their children seldom attend, their happy faces and sparkling eyes are not visible among the long row of benches, for their "better-half"(?) cannot get time to prepare them, and the school-maam expresses her aversion to uncleanliness in any form, besides a change of text books is required semi-annually, aud that is costly. They subscribe for uo newspaper, they caunot get time to read it, and the notion is prevalent that the ideas contained therein are not the practical illustratious of everday-life. And there is that oldest boy, they *never* send him to school, he is more useful at home following the plow, or displayiug his skill upon the reaper. And there are the cows to milk, and sundry other chores which it does not pay to hire a man to do, for our "Jake," or—whatever his name may be—can do them just as well, besides they have no time to hunt help.

Yet, if there is any debt due them, if a circus placards in glowing letters its arrival in a neighboring village, if a grand ball is to occur, if their daughters must have new style of dresses, to keep pace with the fashion—how marvellously quick time is found to accomplish these ends.

And it is with regret we note how many there are, who for the sake of a few paltry dimes, for want of a few precious moments, ignore the more important duties of life and train their children in ignorance and superstition. It is true many old farmers sadly feel the effects of limited schooling; but in their time the system of education was not carried to such perfection as in the present. Our parents never had the advantages we now possess, and you who are blessed with children should never be so busy that you fail to give them a thorough common-school education. It is a duty you owe to posterity, and by so doing will not be paving the way to vicious acts and the concomitants thereof in after life. You know not, farmers, what you are missing. You know not but you are preventing them from filling stations of eminence in society; for far more numerous are they who by the aid of knowledge and an indomitable perseverance have emerged from the obscurity of the farm-house, and elevated themselves, step by step, until their names have been sounded with honor, thoir literary efforts praised by an admiring people. Let us, then, find time to render our lessons in life salutary. Let us strive to have our sons and daughters appear as bright and shining lights to cheer us in old age, and our memories will be cherished; the sacred names of father and mother will be uttered with feelings of gratitude and reverence, for having implanted deep in their hearts those great principles of truth, honesty and piety, which mark the path to success in life.

San Felipé. J. A. S.

ALL FAIRS sink into insignificance when the world-famed fair of Russia is mentioned. The fair of Nijni Novgorod is held annually for eight weeks. This is a real fair or market, as are, with one or two exceptions, all those above mentioned. The Fair at Nijni Novgorod is visited by 400,000 dealers. There are 3,000 stalls. The value of goods brought to this Fair is said to amount annually to $50,000,000.

That a rapid advance has been made during the past few years in mechanic arts on the Pacific Coast, is evident from even a casual visit to the numerous aud well appointed machine shops and mills in this city. Nevertheless there are specialties in mechanics in the Eastern States which have not as yet reached our comparatively distaut shores, or which being known are not yet adopted. This is particularly noticeable in the varied and important uses to which grindstones are now put. Formerly their work was confined to the sharpening of tools only, but this is now but a small part of the uses to which they are put, as it has been found by experience that almost every kind of steel, iron (case hardened especially, and brass work used in finished machines can be ground better and cheaper than by filing. Almost every part of a locomotive engiue is now finished on the grindstone, which leaves the metal in the best possible condition to receive the polish or paint in finishing. As will be seen by reference to our advertising columns, grindstones of special character are made for special trades, and those for grinding locomotive and machine work are particularly referred to.

Messrs. M. Baird & Co., of the Baldwin Works, Philadelphia, who are now making 40 locomotives a month, keep six grindstones of 4,000 pounds each running constantly on locomotive work alone, uot only all the rough castings being ground, but 41 working parts of the engine are finished in this way, besides grinding off the faces of their auvils, some of them weighing 700 pounds. The master machinists of nearly all the railway repair shops fiud it to their interest to keep at least one grindstone in use for this purpose.

Grindstones are also used in the East for finishiug pullies of all sizes. The pulley is caused to revolve against the stone which ruus rapidly in an opposite direction, thus grinding down the face of the pulley very fast, and at less cost than by turning it in a lathe, besides leaving it perfectly true. It requires, however, a very peculiar kind of of grindstone for these purposes, the grit of which should be very sharp and firm, so as not to crush down with the necessary pressure, and yet not so hard as to glaze, and it requires considerable care and experience in making a proper sclection.

Much more care than formerly is now exercised in the selection of suitable grits for sharpening machinists' tools, and it has been fouud that the first cost of a grindstone is of little consequence, provided it does its work quickly and well, a poor grindstoue being dear at any price. The following hiuts have been found useful to those having charge of grindstones:

1st. Don't waste the stone by running it in water, but if so, dou't allow it to stand in water wheu not in use, as this will cause a soft place.

2d. Wet the stone by dropping water on it from a pot suspended above the stone, and stop off the water wheu not in use.

3d. Don't allow the stone to get out of order, but keep it perfectly round by the use of a piece of gas pipe or a hacker.

4th. Clean off all greasy tools before sharpening, as grease or oil destroys the grit.

5th. When you get a stoue that suits your purpose, seud a sample of the grit to the manufacturer to select by; a half ounce sample is enough aud can be sent in a letter by mail.

FARMING IN NEW-ZEALAND.—Iu New-Zealand an important use is found in the Scotch thistle, in farm economy. It spreads over the rough fern hills, takes full possession of the groupd, is partly eaten by domestic animals, and in about four years is exhausted and disappears, having in the mean time nursed and protected a growth of clover and grass, which spring up and take its place, the long tap-roots of the thistle having opeued and pulverized the soil and fitted it for the growth of the grasses; so says a correspondent of the Loudon *Times*.

TO WATERPROOF PAPER.—To waterproof paper, dissolve one pound of white soap in one quart of water. In another quart of water dissolve one ounce of gum nitric, and six ounces of glue; mix the two solutions, heat them, and soak the paper in the liquid, then hang it up to dry. Paper sometimes will not stick to an old wall. Where there is danger of this, use vinegar in the paste instead of water.

DO NOT SCALD POULTRY. — The practice of scalding poultry before pluckiug it, has very properly been vetoed by market dealers. Fowls may be plucked with equal facility and with better effect in preserving the flesh, immediately after death, and before they have had time to cool.

A CLAY soil turned up when wet, with the sun immediately upon it, will not only make it unfit for planting, (the soil being harsh and lumpy,) but hurt it for years. This has been expressed frequently before.

FLORICULTURE

The Auricula (*Primula Auricula*).

"See, when arranged in sparkling dust and velvet pride,
Like brilliant stars arranged in splendid row,
The proud Auriculas their luster show."

This beautiful gem of Flora is a native of the Swiss Alpine Mountains, and is supposed to be a variety with Primula *Helveticus*, *Nevis*, aud *Viscosa*. Its original color is orange yellow, not much unlike the English cowslip, and not over prepossessing in appearance, unless in its pristine state. The Auricula was imported into England in the sixteenth century, and was found susceptible of much improvement by cultivation. Since that time much care has been bestowed upon it by florists, and the perfection it has attained is astonishing,—so much so that it has become one of the leading florist flowers in both Europe and America; and instead of the original color, is now one of the most beautiful imaginable.

In visiting Miller and Sievers floral establishment a few days since, we found some very handsome seedling Auriculas. They were of large size and beautifully centered aud bordered. Our climate iu California seems to suit it well—much better than England's, but this will not surprise anybody. Iu the summer this plant delights in the shade, and must be very regularly watered. The best soil for it is from the woods, more particularly in the ravines, where rotten wood and leaves are washed, with a mixture of sand or fine stone. This plant can be extensively cultivated by seed, by most gardeners and amateurs, and is well calculated for exhibition and for prizes.

There is some difficulty in getting the seed to germinate if uot fresh, as it may occur sometimes that seed will be one or two years before they come up unless forced in a hot-bed.

When the seedlings have formed four leaves they should be transplanted into thumb pots, and be kept in the shade and never suffered to become dry, nor be placed where the rain falls, or they will be washed out of the soil. Seedlings will flower the second season. The soil recommended for full grown plants will also do for seed and seedlings. We have seen 100 kinds of the finest Auriculas at one time on a stage in a garden in England. Such a sight never before met our eyes, but I hope to see it again some day in California. It can be done as easily here as in England. Indeed every thing is more suitable for it here than iu England, with irrigation.

A Remarkable Flower.

A flower has been recently described by an eye witness at Constantinople, which is so great a rarity that one is apt to treat it as a fable and wait for the confirmation of one's own eyesight. It belongs to the narcissus kind of bulbs, and bears the Botanical name of *ophyrsmouche*. There were three naked flowers on the stalk hanging on one side; the underneath oue was fadiug, while the two others were in all their beauty. They represented a perfect humming bird. The breast of bright emerald greeu is a complete copy of this bird, aud the throat, head, beak and eyes are a most perfect imitation. The hinder part of the body and the two outstretched wings are bright rose color, one might almost say flesh colored. On the abdomen rests the whole propagation apparatus, of a deep dark brown tint, in the form of a two-winged gad-fly.

The reader will recognize a remarkable similarity between the above described flower and the *Espiritos Santo*, in Woodward's Gardeus, illustrated and described in the RURAL PRESS of March 15th, 1872.

MOSS ROSES.—The best varieties of the moss rose are: Alfred de Dalmas, Gen. Druout, James Veitch, Madam Edward Ory, Salet, Raphael. They are not very free bloomers; but when given good or extra culture, produce flowers at various times during the entire summer and autumn.

A NEW FUEL FOR WARMING CARS.—On some German railways the carriages are heated, without stoves or hot water pipes, by the use of a composite fuel, which smoulders slowly; being placed in an iron vessel, which is enclosed in a copper box, hermetically sealed. In case of accident all danger of accideut is thus obviated. The contrivauce will yield a steady supply of heat for twenty-four hours without recharging.

RESISTING OXIDATION.—It is said that Mr. Rhind found in a tomb at Thebes, which had probably not beeu opened for 2,000 years, iron hasps and nails on the doors of the repositories "as lustrous and as pliant as the day they left the forge." How were they kept from oxidization?

[illegible] Items.

BIELA'S COMET. — This remarkable comet does not seem to have completely lost its identity as a cometary body, as Mr. Peyson, the English Royal Astronomer, announces in *Nature* that he has received advices from Prof. Klinkerfues, stating that he distinctly saw at least one portiou of that comet on the night of November 30th last. This vision being interrupted by clouds, he did not see it again until the 3d of December, when it showed "bright, with a decided nucleus, but no tail." The next morning he got a still better view of it, when it still showed a "bright nucleus; a faint but distinct tail." He saw but one comet—in fact, in the few moments available for observation, he had no time to look for the second comet. Thus the speculations with regard to the disruption of this body, and its separation into a cluster of meteorites must remain unsettled until its next appearance, at least—some three years heuce. Prof. K. seems to think that the comet actually touched the earth on the 27th of November; as when last observed, the two separate bodies into which the comet is known to have been divided several years ago, being over a million of miles apart and still receding, it may be that *one* of the divisions only has become disrupted, and taken the form of a cluster of meteors.

THE PRESERVATION OF EXPOSED SHEET-IRON.—The directiou of the government railroads of the Netherlands has published the results of some experiments in regard to the preservation of sheet-iron used in railroad bridges. From 32 sheets half was cleaned by immersion for 24 hours in diluted hydrochloric acid; they were then neutralized with milk of lime, washed with hot water, and while warm dried and rubbed with oil. The other half was only cleaned mechanically by scratchiug and brushing. Four of each kind were then equally painted with red lead, with two kinds of a red paiut of oxide of iron, and with coal tar. The plates were then exposed to the weather, and examined after three years. Tho result was, 1. That the red lead had kept perfectly on both kiuds of plates, so that it was impossible to say if the chemical cleaning was of any use. 2. That one kind of irou oxide red paiut gave better results on the chemically treated plate than on the other; in fact, a result equal to that of the plate painted with red lead, while the other kiud of iron oxide red gave not very good results on the plates, when only scratched and brushed. 3. That the coal-tar was considerably worse than the paint, and had even entirely disappeared from those iron sheets which had not beeu treated chemically, but only cleaned by brushing.

WATER ON THE MOON.— All observations hitherto made tend to prove that water in auy form does not exist on the moon's surface. But it has been cousidered that it was once preseut there, and indeed traces of aqueous or glacial action are by some considered to be evident. What then has become of the water? Assuming the solid mass of the moon to contract on cooling at the same rate as granite, its refrigeration, though only 180 deg. Fah., would create cellular space equal to nearly 14¼ millions of cubic miles, which would be more than sufficient to engulf the whole of the lunar oceans, supposing them to bear the same proportion to the mass of the moon as our own oceans bear to that of the earth. If this be the present condition of the moon, we can scarcely avoid the conclusiou that an ocean can only exist on the surface of a planet as long as the latter retains a high internal temperature.

TO REMOVE FAT FROM THE WATER OF CONDENSED STEAM.—The steam coudensed from engines always contains fat, resulting from the material used for lubricating. Messrs. Cail and Co., in Paris, collect the water of condensation iu a commou reservoir, and pump it into a receptacle provided with a powerful stirring apparatus, cousisting of shovels, Archimedian screw, etc. This receptacle is three-fourths full, tho remaining space being filled with petroleum; the apparatus is set iu motion for five miuutes, the water beiug allowed to settle fifty-five minutes. Five minutes time is sufficient to separate all the fat which is theu contained in the oil, aud the purified water can directly be used again. A hundred pounds of petroleum will absorb fifty pounds of fat; it has then a specific gravity of 0.840, but should be renewed when presenting a density of 0.810. It is subsequently regained by distillation.

CUTTING TOOLS OF COPPER.—It has been doubted by many that the copper tools of the ancients really possessed the density and cutting power usually ascribed to them. Sir Gardiner Wilkinson, however, remarks that some of the bronze daggers found by him iu Egyptian tombs were so beautifully tempered that, after having lain buried for 3,000 years, they possessed, when dug up, an elasticity almost equal to that of steel. It is thus definitely proven that the Egyptiaus really did possess an art, which has been lost, of making bronze of a particularly fine temper, capable of taking and keeping a sharp edge.

A COMET was seen to traverse the system of Jupiter aud his moons, in 1870, without causing the smallest disturbance amoug the satellites, although the nebulous body of the comet itself was so much disturbed that its entire orbit was changed.

E[illegible] [illegible] COUNCIL.

The Fairview (Los Angeles) Farmers' Club.

The club met on Thursday evening, Feb. 13th. The Vice-President in the chair. Committees were appointed to obtain information relative to the best method of providing storage and transportation for produce. The question (Resolved, That the co-operation of farmers is beneficial to their welfare) was discussed. An essay by J. D. Taylor was read on the subject, and it was ordered by the club that the Secretary send a copy of the same to the RURAL PRESS with the proceedings of this evening, with a request to publish. On motion the same question was continued for discussion at the next regular meeting, being the fourth Thursday evening of the present month, at the Fairview schoolhouse, at 7 o'clock, P. M.

D. K. COLES, Secretary.

Speech of J. D. Taylor, Delivered Before the Fairview Farmers' Club.

MR. PRESIDENT:—There could not be a more appropriate question submitted to this club than the one before us: "*Resolved*, That the co-operation of farmers is beneficial to their future welfare." It is significant in its wording, and of the greatest importance. The subject has been fully considered and the act of working together for one end is beneficial, advantageous and contributes valuable aid towards the farmers' future welfare.

It is a question of political economy in respect to citizens; measures by which their property and labor can be directed in the best manner to the success of individual industry and to the public prosperity. It is an important question of the times, and especially of this locality. We are laboring under disadvantages that, as individuals alone, a change or remedy cannot be provided; but by co-operation it is feasible. By connecting ourselves with the State Union—who have nobly taken the lead—and acting in concert with them, we may hope for good results.

We can also co-operate by various ways, in this locality to make our produce more profitable, by providing means in time and obtaining sacks, or the material. Sacks will have to be had at any price, when needed; also by lessening the cost of transportation to San Francisco, our principal market. Such measures are of great importance, when we consider the bulk of and weighty character of our produce, in proportion to its value. We need all the advantages the case will allow, to make our crops remunerative.

I will call attention to a calculation made of one of our principal crops of this locality; each person present can judge of its correctness and general average, and make his own calculation on this or any other crop. The one selected is barley, say average at one ton (or 20 sacks) per acre, and value 1¼ cents per pound Within the past year at this place barley has sold for 2¼@¾ cents per pound (including sacks), making the stated average of 1¼ cents. This is made without reference to present prices:

Eighty pounds seed	$ 1 20
Plowing, sowing and harrowing	3 00
Heading and stacking	3 00
Threshing	2 00
Sacks at 20 cts each	4 00
Expenses per ton	1 80
Cost of cultivating one acre	$15 00
Hauling per ton	$ 2 00
Steamer charges	3 00
Lighterage	1 50
Drayage, etc	1 50
Expenses	$ 8 00
Cost of cultivating one acre	15 00
Total expenses	$23 00
Yield of one acre one ton, value	$30 00
Total expenses	23 00
Net value, per ton	$ 7 00

At the above estimate the net proceeds (not counting rent) would be $7 per ton, at 1½ cts., in San Francisco; or at present San Francisco prices, say $1.15 per cwt., would just amount to $23 per ton, just what it would cost to raise and get it to market. It is necessary to take some action in relation to our produce, to make it remunerative.

The mechanic fixes a price for his labor by which he can live, and the merchant for his merchandise; and the farmer, in justice to his pursuit, should reap some reward for his labor, and, if needs be, fix a price of staple articles, and exact such prices from those with whom he deals. By co-operation, we can reduce the expense on sacks, lighterage and freights—no small item in themselves—in relation to the value of the articles.

A State Union can govern the markets of San Francisco, and the farmer, instead of the speculator, receives what justly belongs to him when prices advance, and have a say in matters that effect his interest. If united—co-operate as the case calls for, instead of our present straightened and disheartening circumstances—we can realize in a true agricultural sense what the Father of his Country pronounced: That "agriculture was the most healthy, the most honorable and the most independent pursuit of man."

There is no class of men who can as near live within themselves as the farmer. If compelled, he can raise less to sell and more to consume, and cut [illegible] article he consumes but could, if necessary, be dispensed with, and substitute some of his own production in its place. His comes nearer being independent than any other pursuit; but his productions are indispensable to all other pursuits.

Whilst feeding the masses, would it not be just to coöperate in measures affecting his own interests and welfare. Coöperation is not only beneficial, it is expedient for his own safety. The present deadly course to our prosperity is apparent to all. We are compelled to sacrifice our produce at the purchaser's price and terms, and receive goods in return at their rates. Our present course is uncertain in its character, and ruinous in the end.

Agriculture, as well as political economy, is a science, requiring the best efforts to accomplish the most good. Let us unite and ward off the impending evil, and not willingly submit to the modeling of our interests to suit designing speculators. The very nature of a farmer's club is based on the principle of coöperation in all that tends to our good. By meeting and discussing the various subjects that naturally flow in the current of daily life, we rub off the accumulating rust.

It is a healthy reaction—a desirable harmony of the mental and physical faculties. In a social point it is none the less beneficial. As friends and neighbors let us cherish the principle of improving in all that affects our welfare. Let this association be the nucleus at which we socially meet and coöperate for our future benefit. Intellectually, morally and pecuniarily, as the farmer occupies a preëminent position in life.

His calling is indispensable to all his race—his industry supplies sustenance, day by day, to millions of his fellow-beings. Should he not feel the importance of such a position, and endeavor to weed out such obnoxious plants as exist, that injuriously affect the growth and prosperity in the fields of his labors?

The great cugiue of reform in the farmers' interest — the State Farmers' Union— is all ready to start on its important journey. It invites us to coöperate and join its numbers to aid in accomplishing what is desirable to make us prosperous and happy in our common pursuit. With such men as Major Bidwell and compeers at the head and center of the movement, may we not have confidence that all that integrity, ability and industry can accomplish, will be done?

Let us become a part of this movement, and anticipate the happy consummation of the scheme that argues so much good. An intelligent, industrious, persevering, united community of farmers are able for the task. No object worth obtaining can be procured without efforts commensurate to its value—all opposing obstacles are of a trifling nature, when compared with the object to accomplish. With the happy ideal that constitutes a farmer's life, in all that is desirable, we should fully endorse the sentiment of Moore, in its poetical beauty, on beholding a lady in the cultivation of her garden, exclaimed thus:

"Oh, lady, could we do with this world of ours
As thou dost with thy garden flowers—
Reject the weeds and keep the flowers—
What a Heaven on Earth we would make it:
We would have it so that angels soon would be
Coming down by the week or month to take it.
So, let us cherish some flower, be it ever so lowly,
Let us work for some good, be it ever so slowly."

Thus, we can fancy a community of industrious, moral and intelligent farmers, enjoying all the comforts of civilization, located on the confines of this Western Continent, the mild waves of the Pacific laving the shore at the west, the mountain monuments in grandeur rising on the north and east of their favored location; favored in soil, climate and varied productions of nature's best gifts; a bright sun shining in the clear vault above; pleasant, cool breezes fanning the cheeks of healthy and happy people, who are living in peace, security and prosperity, honorable and independent, with the self-gratification that the energies of mind and body are united in accomplishing the desired object.

The recipient of such favors, on returning from the field and manual labor at mid-day, can quietly recline and rest beneath the effulgent rays of the meridian sun, basking literally in the shade of his own vine and fig-tree. Shall we ignore the principle of excelling in a pursuit so vital to our interest? If there is an elysium on earth, by coöperation, it is within grasp of the intelligent and industrious farmer.

Calistoga Farmers' Club.

A meeting of the Farmers' Club was held on Saturday, March 8th. Thirteen members were present. Vice-President Baizely in the Chair.

G. V. Boggs, Chairman of Committee on Constitution and By-Laws, reported a Constitution as adopted by a majority of the Clubs throughout the State, which, on motion and by a unanimous vote was adopted.

Letters were read from Hon. John Bidwell, President of the State Farmers' Union, and from J. M. Wright, Esq.

As the Coustitution calls for only one Secretary, Mr. G. H. Thomas was retained as such by vote of the Club.

Some new members were added to the organizatiou, and several more will join at the next meeting.

After a short discussion on matters of importance to the farmers, the Club adjourned to meet Saturday, March 15th, at 2 o'clock.—*Tribune.*

[illegible] Farmers' Club.

The Club met March 8th, President W. A. Fisher in the chair. About fifty farmers were present, as it was expected that steps would be taken to organize a Grange of the order of Patrons of Husbandry.

The Secretary read communications from A. T. Dewey and I. N. Hosg, officers of the State Farmers' Union, relative to the price of sacks, in answer to inquiries from this Club. They were placed on file. Also a communication from I. N. Hoag, calling attention of the Club to the meeting of the Union, April 9th, placed on file.

President Fisher reported receipt of seeds, from our Representative in Congress, Hon J. M. Coghlan. Seed also presented by Dr. Lockwood. Thanks to both parties. Secretary reported distribution of seeds, forwarded by Agricultural department.

Mr. Gridley presented several papers relating to the order of Patrons of Husbandry, setting forth the character and objects of the organization, etc., which were read by the Secretary.

Mr. W. H. Baxter, upon invitation of the President, explained the steps necessary to effect an organization, and informed the Club that he held a commission as General Deputy for the State.

Mr. Gridley thought that in case a Grange should be organized here, it would not involve the necessity of abandoning the Farmers' Club.

Mr. Saul thought Clubs were good. Had hoped that every farmer would join but they didn't. There ought to have been Clubs organized, in every precinct in this county. Clubs had proved inefficient when it came to the transaction of business. Their discussions, business, etc., were all open, and their enemies could take advantage of them. With reference to the purchase of sacks, the propositions before us are not indicative of success. Information was at hand, that sacks could be purchased at rates less than those named.

Here in California, we are in the same fix as the farmers east—at the mercy of the railroads. The cormorants think they are very liberal, and entitled to great credit, that they do not take all we have. Freights take all our profits. Railroad companies really control all the country within reach of their roads. They own a large portion of the land, control legislation, and the farmers are mere serfs. The Credit Mobilier Investigation had opened the eyes of the people. We begin to see men, as trees walking. All business men except farmers, do their business *sub rosa*. All business is dependent on the farmers. We are *producers*; they get rich from our productions.

Until farmers organize, they can do nothing to relieve themselves from oppression. He was opposed to secret organization from principle. If he joins this, it will be the first. Yet he understands that its secrecy consisted solely in doing business and keeping their mouths shut, —just as any business man must do, if he succeeds. He understood that no question of a religious, or political character, would be raised, but that the business of the Grange would be such only as affected the financial welfare of the farmer. With this understanding, he would join.

Mr. Saul moved a vote of thanks, to President W. A. Fisher, for the able manner in which he had presided, and for the interest he had manifested in the welfare of the Club—carried, rising.

On motion, the Club adjourned to meet at the call of the President.

G. W. HENNING, Sec'y.

Organization of Grange.

Upon the adjournment of the Club those present proceeded to the organization of a Grange of the Order of Patron of Husbandry, Mr. W. A. Fisher remaining in the chair by unanimous consent.

A free expression of opinion being called for, nearly every one present signified approbation of the movement.

On motion of Mr. J. M. Thompson, a Committee of three—Messrs. Thompson, Gridley, and Nash—appointed to take the names of those who desired to become charter members, and to nominate officers.

A recess of fifteen minutes was taken in order to give the Committee time.

Upon the meeting being called to order, the Committee reported the following names of charter members, the list being limited to twenty males and six females: W. W. Smith, W. H. Nash, Daniel Gridley, Jas. A. Hill, J. M. Mansfield, Wm. H. Winter, G. W. Henning, J. M. Thompson, William Flemming, J. Walter Ward, Thos. H. Thompson, L. W. Eby, J. L. Marshall, C. A. Menefee, Wm. A. Fisher, A. R. Utting, J. B. Saul, D. C. Squibb, Paris Kilburn, L. W. Hardman; Mrs. W. H. Nash, Mrs. J. M. Mansfield, Mrs. W. H. Baxter, Mrs. J. M. Thompson, Mrs. W. A. Fisher and Mrs. Paris Kilburn.

Names of officers will be reported when they are elected.

The Report was adopted and the Committee discharged.

The names and charter fee were placed in the hands of Deputy Baxter, to be forwarded to Washington.

Upon motion, the meeting adjourned to meet at the Court House, on Saturday, March 29th, at 2 o'clock, P. M.

For the information of others wishing to organize Granges, we publish the following extracts from the Constitution of the National Grange:

1. Any person interested in agricultural pursuits, of the age of 16 years (female) and 18 (males), duly proposed, elected, and by complying with the By-Laws of the Order, is entitled to membership and the benefit of degrees.

2. Application for a dispensation to organize a Grange must be made by not less than nine men and four women; nor more than twenty men and ten women, through a Deputy, to the Secretary of the National Grange; said application to be accompanied by a fee of $15. Charter members are those only whose names are upon the application, and who have paid a fee of $3 upon signing. The $15 is paid out of the fund created by the payment of fees.

3. As soon as 15 subordinate Granges shall have been organized in this State, a State Grange will be organized, and the dispensations will be replaced by charters, without further fee.

4. Religious or political questions will not be tolerated as subjects of discussion in the work of the Order, and no religious or political tests for membership shall be applied.

5. The minimum fee for membership in a subordinate Grange shall be, for men, $5; for women, $2; for the four degrees; except charter members, who shall pay—men, $3; women, 50 cents. The minimum monthly dues shall be from each member, ten cents.

6. The officers are as follows: Gentlemen—Master, Overseer, Lecturer, Steward, Assistant Steward, Chaplain, Treasurer, Secretary and Gate-Keeper. Ladies—Ceres, Pomona, Flora and Lady Assistant Steward. There is also a Standing Executive Committee of three which has charge of the business of the Grange.

We have sent to the Secretary of the National Grange for copies of Constitution and By-Laws, and other documents for distribution, and shall be happy to furnish them on application, as soon as they arrive.—*Napa Register.*

San Jose Farmers' Club.

Club met March 8th, President Casey presiding.

Mr. Hobson said there is still a debt of nine or ten dollars due on the Farmers' Stalls which ought to be paid.

Mr. Cadwell thought that there were arrangements made at the last meeting to cover that indebtedness.

President Casey suggested that a cent or half cent be added to the agent's commission until this debt is paid. He also suggested to the Market Committee that they fix a schedule of commissions, so that there need be no complaint among the patrons of the market.

After some discussion, President Casey paid eight dollars and a half, and Mr. Bergland one dollar, which paid up the indebtedness for the construction of stalls.

In the matter of the selection of a subject for discussion next Saturday, it was resolved to consider the question, "Would a man be justified in incurring any indebtedness in the purchase of a farm in this valley, and if so, what proportion?"

Mr. Holloway asked if Mr. ——— had found any flax seed?

He replied that he had. He had paid eight cents a pound, and intended to sow it next week.

The Secretary read a communication from Gerry E. Danford in regard to preservation of grain in store for several years at a time. The Secretary was instructed to answer the communication.

An announcement from I. N. Hoag was read stating that the meeting of the Farmers' Union would take place on the 9th of April, instead of the 9th of March. Accepted and placed on file.

Communication from Department of Agriculture announcing the shipment of samples of imported Odessa and French wheat. Accepted and placed on file.

The question for discussion was in regard to the license system.

Mr. Bergland said that the license system was essentially wrong and should be abolished. It was adopted to keep up an aristocracy in the community. If a pursuit is wrong, such as selling liquor or gambling, no license can make it right. If a business is legitimate, such as farming or mechanical arts, no one has a right to place restrictions upon it. A man has a right to till the soil or pursue a useful trade without paying tribute.

Mr. Holloway said the whole system originated in another and antagonistic theory of Government to ours. He held that whenever the Government interferes in a legitimate business it should establish a fair standard. If you come into contact with any of the subsidized or licensed enterprises in the way of competition, they will freeze you out; and if you come into contact with them in the way of business transactions, they will fleece you. Their subsidies gives them funds to destroy competition. When a lawer is licensed his fees should be fixed. So with every other licensed business. If licenses must be granted, their prices should be regulated and fixed.

Mr. Haskell said he was opposed to town license and license for the sale of intoxicating liquors, but he thought some licenses were necessary, such as licenses for railroads and steamship companies, but he thought with Mr. Holloway that in such cases the rates should be fixed.

Mr. Erkson thought there was a vast difference between license and subsidy. In one case a man is paid to do something, in the other he

pays for the privilege of doing something. In regard to licenses, if a business is wrong, it cannot be made right by licensing it, and if it is legitimate and right, it should be protected. In reply to Mr. Holloway's argument that the farmer is allowed no license, he said that although not technically licensed, the farmer is protected by being relieved from direct taxation, and by discriminating duties on certain imports in which farmers are interested.

Mr. Bergland said he thought that every business, trade or occupation should pay license; that every man who raises a family shonld pay a license on each child; or else everything should be free and license shonld be abolished. If one pays for the light of the sun, all should pay, if one gets the sunlight free, all should have it free.

Mr. Hobson said it was apparent that this qnestion of license had not received as much study among the members of the club as it should have done. He said that while scarcely a man could now be fonnd to nphold the old slave laws, yet they do uphold blacker and more damnable laws than those. He opposed the system of taxation. He thought if licenses were abolished, the revenue could be collected much more economically. He said the license system was unequal. While the rich dealer was allowed to sell grain sacks to the farmer without license, the poor vegetable peddler must pay for the privilege of plyiug his trade. He said that the license system for the sale of ardent spirits in California is more damnable than were the old slave laws.

Mr. Cottle said he did not look upon the question as a moral one, but as a purely financial one. He thought the nearest correct system of revenue is an *ad valorem* tax upou the property. In regard to the license of the sale of intoxicating liquors, he did not see the proof of the assertion that the license system multiplied dram shops, and increased the number of drunkards. Iu regard to the license system restricting the liberty of citizens, he could not see the truth of that assertion, for one citizen was just as much entitled to, and could just as easily procure a license as another. While he did not absolutely favor the license system he thought the argument of the members more buncombe than anything else. License is not an extortion from traders but a protection.

Mr. Holloway contended that there really was no difference in the practical operation of snbsidies and licenses.

Mr. York said there were swarms of persons in our community, and in fact in almost every community, who produce nothing, but draw largely from the community, and who cannot be reached by *ad valorem* tax system. Iu order to make these parties pay their proportion of the expenses of the Government, they must be taxed in the way of licenses. He therefore thought the license system not wholly wrong.—*Mercury.*

San Joaquin Farmers' Club.

The Club met Saturday, March 8. Captain T. E. Ketchnm in the chair. The Chairman suggested that it was about time to take up and act npon the report of the Committee on Reorganization. On motion of Mr. Paulsell the report was read by the Secretary. The report consisted of the new Constitution and By-Laws. The report was adopted. The Chairman explained why it had become necessary to change the Constitntion and By-Laws. He said that it became necessary to oontribute finances, in some manner or other, to meet the current expenses of the organization; and the old constitution failed to make the necessary provision; also it became necessary to adopt rules governing speakers while debating any question before the Club.

Mr. Phelps stated that the officers of the old Club had incurred quite a heavy expense—had agreed to pay the sum of $18 per month for rent, which was at the rate of about $4 an hour, as the Club met only once a week and was seldom more than one hour in session at any time. Mr. Overhiser asked to have the list of members read, whereupon the Secretary pointed to the list of the old Club, and stated that it contained 200 names.

Mr. Overhiser remarked that if this was a new organization, it would be well for the gentlemen present to step forward, pay $1 each as an initiation fee, and sign the Constitution and by-laws; and if it was still the old organization, then proceed to business. Mr. Paulsell remarked that he had not been a member of the old club and therefore occnpied the position of an outsider; but he would like to be informed whether or not the old club was in debt, desired to know how it was to be paid, and in reply it was stated that the sum of fifty dollars would cover all the arrearages of the old club, and that said club has property in the shape of furniture, book-case, etc., of more value than the sum stated.

The Chairman stated that it would be necessary for all new members to pay, each, au initation fee of one dollar, and twenty-five cents per month thereafter as dues for the purpose of placing funds in the treasury to meet necessary current expenses. Mr. J. M. Barbour suggested the propriety of commencing a new orgauization altogether. Mr. Phelps said he did not consider new members in any way responsible for the debts of the old club, as it had property enough to pay all charges against it. Several gentlemen paid one dollar each and had their names entered on the club register.

Mr. Paulsell thought that twenty-five cents per month was enough money, without the $1 as an initiation fee. Twenty-five cents per month amounted to $3 per year, and an additional dollar swelled the contribution to $4 per year for each member, and estimating the nnmber of members at one huudred, gave a total contribution of four hundred—more money than the club required for necessary current expenses. The Chairman remarked that the club had never been overburdened with money, and that the San Joaquin Farmers' Club was an organization that would certainly pay its debts.

Mr. Barber suggested that all new members only be required to pay an initiation fee of one dollar, and that nothing more than the regular monthly dues be extracted from the old members, who each had paid $1 upon first joining the organization. On motion of Mr. Overhiser, it was voted that any member, upon failnre to pay his dues for a period of six months, shall cease to be a member of the organization, and that the name of such delinquent be published.

On motion of Mr. Phelps, Mr. Barber was elected temporary Treasurer, and the fnnds collected at the meeting were delivered over to him by the Secretary. It was voted that the monthly dnes be paid on the last Saturday of every month, and tbat the first dues are payable on the last Saturday in March. Mr. Overhiser said that he wished it to go abroad that all members of the old clnb would be considered members still, and that no further fee than the regular monthly dues would be extracted from them. It was so ordered by the club.

The Chairman presented a circular received from I. N. Hoag, calliug attention to a united effort being made for the purchase of grain sacks; also, to a meeting of the Farmers' Uniou, to be held at San Francisco on the 9th day of April next. The circular was read by the Secretary. On motion, it was received and filed. Brief remarks were made on the sack question by Hon. Samuel Meyers, Mr. Paulsell, and others. Subject selected for discussion at the next meeting: "Machinery for harvesting grain". The model of a new harvester, or rather a combined header and thresher, operated by both steam aud horse power, was exhibited, and iuspected by the farmers present.—*Independent.*

Grand Island Farmers' Club.

Pursuant to an adjournment of a meeting held March 5th, the farmers of Grand Island met at Bridgeport schoolhouse on the 12th for the pnrpose of effecting a permanent organization to be known as "The Farmers' Club." The meetiug was called to order by the President, pro tem., and after hearing a communication read from I. N. Hoag, Secretary of the Farmers' Union, it was determined on motion of Mr. Moses Stinchfield, to permanently organize, which was done by adopting a Constitution presented and recommended by the Committee on Permanent Organization, and the election and installation of the followiug named gentlemen as officers, to hold office one year from their election: President, William Ogden; Vice-Presidents, P. A. Earp, Wm. Ash; Secretary, J. C. Wilkins; Treasnrer, H. Davis. On taking the Chair the President delivered an address, setting forth the objects of the organization, and predicting better times as the result. On motion of John Davis it was decided that our organization be known as "Grand Island Club." Motion made by Ash making membership fee one dollar. After some discussiou it was decided that our place of mecting be Bridgeport schoolhouse. On motion of D. W. Hoover it was agreed that Wednesday evenings be the nights of meeting, at half past seven o'clock; the Club to meet once a week. On motion of Mr. Stinchfield, the Secretary was instructed to procure suitable books to keep a record of the proceedings of each meetiug, and to keep the financial accounts of the Club, in a book for that purposo. After a long and eloqnent address by H. Davis, setting forth the necessity of giving all the publicity to our proceedings possible, it was decided on motion of Stichfield that the Secretary be requested to have the proceedings of this meeting published in the Colusa *Sun.* Also, to write notices to be posted in some public place, giving the night of meeting and inviting all who desire to see right prevail, to attend and give ns a helping hand, and by so doing, help themselves. Motion carried to adjourn to meet again Wednesday evening, March 19th, 1873.—*Colusa Sun.*

West San Joaquin Farmers' Association.—This is the name of an organization of farmers residing on the west side of the San Joaquin river. The principle place of business is at Ellis, and the President is C. E. Needham. The incorporators are C. E. Needham, M. Lawrence, W. H. Fassett, W. B. Hay, C. D. Needham, D. J. Saddlemire, T. S. Gordon, J. Christman, D. D. Sweeney, James Field, A. P. Stocking. The articles of iucorporation provide that the term of existnece of the Association shall be fifty years, and the capital stock $500,000, divided into 25,000 shares of $20 each. Its objects are shippiug or freighting, buying, selling, or leasing grain, produce, sacks, stocks, vessels or real estate, and doing a general commission or warehouse business, borrowing and loaning money and giving and taking real estate as security, etc. The by-laws provides that the Board of Directors shall hold a regular meeting every month, aud every member of the Board who fails to be present at any regular meeting shall forfeit $1 for each failure to attend, unless he can preseut a just and reasonable excuse for his absence. Six members of the Board constitute a quorum for the transaction of business. The Executive Committee shall consist of seven stockholders of the Association, and the duty of said committee is to attend to and superintend all business of the Association, snbject to the approval of the Board.—*Independent.*

Oakland Farming, Horticultural and Industrial Club.

Regular meeting Mar. 14. President Carr in the Chair; A. T. Dewey, Secretary.

A communication was received from a Farmer's Club lately organized at LaGrange, Stanislaus couuty, with a petition inclosed to Congress, asking for the repeal of all duty on sack material, and asking the Oakland Club to circulate the same for signatnres. Voted, that it be circulated with the petition adopted by the Dixon Club for the same purpose, the members to sign the one which pleases them best.

Committee appointed to attend the railroad meeting at Walnut Creek reported that owiug to the bad state of the weather, Committee did not attend.

The matter of holding an exhibition set for discnssion this evening, was postponed until next meeting.

It was decided to elect delegates to the State Farmer's Union, to be held at S. F., April 9th, at the next meeting of the Clnb.

Lecture on Ventilation by Dr. Carr.

The business of the meeting being gone through with, Dr. Carr gave a very interesting discourse upon "Our Dwellings." He stated that architects considered beauty of design one of the main thiugs in constructing our dwellings, while ventilation was a secondary consideration. He thought we should pay moreattention to the air we breathe. He stated that ventilation was also just as necessary for our barns as our dwellings. It had been demonstrated that the mortality of horses in the French army, when well taken care of, was decreased fifty per cent. He referred to the.

Epizootic,

And stated that most of the cases occurred in stables, and ill-ventilation was one great canse. That deaths in large hospitals was decreased one hundred per cent. npou introducing perfect ventilation. Ho called attention to the fact that sick persons wero generally placed iu small rooms, or iu alcoves off from a room, or surrounded by curtains, causing ill-ventilation, which was detrimental to the recovery of the patient. Healthy persons soon canse the air of a room to become impnre, by consuming the oxygen and throwing off the carbon. He explained the combustion which was continually going on in our bodies; the oxygen of the air introdnced iuto the luugs is consumed, and the carbon is ejected, together with other impnrities thrown off from the lungs, contaminating the atmosphere of the room. Besides the body is continually throwiug of particles of impurities, so that unless there is some means of replenishiug the fresh air of a room continuously, the atmosphere becomes poisonous. He illustrated the effects of carbonic acid gas, by calling attention to the fact that it existed in old wells, shafts and other excavations, and persons going down to clean out these places, the moment they iuhaled the gas they dropped down insensible.

The Cause of Sickness

Is from want of care and attention to tho laws of health. It has been estimated that in the State of Massachusetts, sixty million of dollars is lost annnally from the loss of labor from unnecessary sickness; and in Great Britain two hundred and fifty millions of dollars is annually lost from the samo cause. Oue of the most common cases of typhoid fevers is from breathing impure air; and the death of half the infants can be traced to the same cause. No person ever died from breathing pure air. If we violate any of the laws of nature, we must snffer the penalty, and there is no vicarious atonement for such transgressions. If we paid more attention to our clothiug and fresh air, and less to firos, it would be far better for us. Fresh air is food for the lungs as food is for the stomach. An adult person, in each hour, will contamiuate 3,000 feet of cubic air, so that to keep the air pure, there must be a continuous supply of 3,000 cubic feet each hour, or during one night of sleep of eight hours, 2,400 cubic feet for each person. How many buildings are constructed so as to furnish this supply. We have a great prejudice to night air; bnt there is nothing in the night air that is unhealthy. Open your windows and let in the night air! The best place for a bed is in the middle of the room, where access can be had to the currents of pure air. He illustrated by experiments, the principles of ventilation, which were very interestiug and instructive. He represented with drawings the true process of ventilatiug our dwellings so as to keep the air in all parts of the room pure and of even temperature. We only wish every person in this city could have heard the lecture, and realized the amount of poison they breath night and day from lack of ventilation of their rooms. At the next meeting of the Club, March 27th, Dr. A. F. Partz will lecture on beet sugar.—*Daily Transcript.*

Agricultural Notes.

CALIFORNIA.

ALAMEDA.

Encinal, March 15: The Weather.—Fogs have predominated during the past week, and the air is gradually growing milder; and although there has been very little bright sunshine, the trees are rapidly bnrsting into leaf and blossom. Seeds that have lain dormant in the gronnd for some time past have commenced to break their bonds, and try to make amends for their long imprisonment. Grain crops are growing apace, and the prospect for the farmer was never better at this season of the year. No late frosts have injured the fruits buds and blossoms, and they are now probably beyond the possibility of danger from that source; therefore we may reasonably hope for abnndant crops of fruit the coming season.

Home Journal, March 15: The Weather.—During the past week the weather has been warm, dry and pleasant. With luxuriant verdure, beautiful blossoms and flowers and the profuse vocalization of birds, the whole country presents a scene of extreme loveliness, wonderfully in contrast with the less favored regions to the East of ns. But what a pity it is that money is so tight!

Transcript, March 15: Vegetables vs. Human.—Mr. V. Terry exhibited to ns on Satnrday a fresh-colored carrot which Barnum would, if necessary, perjure himself to get hold of. Stripped as it is of all habitments, it looks like Captain Jack of the Modoc warriors, minus a leg. On the head there is a profuse bunch of hair, flowing down dark and glossy after the most approved Indiau fashion. The form is perfect, even to the minor portion of the system, including the *carot*-id artery. This vegetable *lusus natural* was raised in the garden of Orlando Bolton, carpenter in the Pioneer Planing Mills. It is two feet in length and weighs ten pounds.

BUTTE.

Enterprise March 14: The Parrot grant contains 18,000 acres of land, situated immediately upon the Sacramento river, about 8 miles distant from Chico. Perhaps no grant in the State has been made productive of more profit to its owners than this. For years the arable land has been under the culture of Messrs. Griffith & Morehead, and under their management has yielded immense quantities of grain and stock.

Mr. Morehead retired this year to his own premises, taking with him the nice sum of $25,000 as his share of the profits of the last year's crop and stock on hand. Dr. Griffith now manages the whole premises. There is now under cultivation by himself 2,700 acres, chiefly wheat bnt embracing some acres of Bavarian barley, said to be superior for brewery use; 2,300 acres by other parties is under cultivation.

Preparations are now being made to plow from 600 to 1,000 acres for Summer fallow. There are in use 90 horses and every variety of agricultural implements calculated to facilitate the economy of farming. The stock of the farm consists of 5,000 head of sheep, 2,000 hogs, 100 head of cattle, and 100 head of fine brood mares and colts. There is a nice and pleasant dwelling, several houses for the use of hands, thirty-five of whom are constantly employed.

CALAVERAS COUNTY.

Chronicle, March 15: Crops.—The young grain is looking first-rate in this vicinity and the prospects for good crops is flattering. The days of warm weather we had recently have promoted the growth of vegetatiou wonderfully. Grass is coming on rapidly, fruit trees are in blossom and the hills are putting on their emerald mantles. Spring is a welcome successor to the winter we have had.

KERN.

Havilah *Miner*, March 15: Agriculture.—The recent rains and heavy suows have so thoroughly dreuched the earth throughout the county that it would take an extraordinary dry spring to prevent the farmers from having good healthy crops. Water supplies abundantly this year, the two elemeuts of our material iuterest—farming and mining. Pasturage is sufficiently started to keep stock in fine living order. Steady cold weather has kept the fruit back, but this is to our advantage, as they can blossom without danger now. Grain is reported as doing well all over the country. Agricultural productions will be immense this year.

LAKE.

Bee, March 15: Agricultural Prospects.—We learn that about one-third more grain has been planted iu Lake county this season than any previous year. The season has been quite propitions so far, and the growing crops are promising well.

Farmers in Lake County.—Agriculture is the principal occupation of the people of Lake county, perhaps in a greater degree, iu proportion to the number of its inhabitants, than any other county in the State. There are 1,140 names of citizens enrolled on the Great Register of this county, published last fall, and of these we find that 657, or more than one half, are farmers by occupation.

Large Eggs.—This week two very large hen eggs were sent to our office by Miss H. P. Medberry, of the Woodward ranch, ou the other side of the lake. The largest egg measures 8½ inches around longitudinally, and 7 inches around the center. They were laid by a half-

[Continued on page 188.]

Farm and Garden.

Gardening in California.

Eds. Press:—Driven partly by a restless spirit "studious of change and pleased with novelty," and partly by business engagements, I have visited at one time or another the most of, probably one-half, the counties in the State. In the performance of official duties two years ago I visited every farm and household in one of these counties; a county in which soil and climate combine to make it one of the most fruitful and productive regions to be found on the whole earth. This last expression is no exaggeration. It simply expresses the fact. In all portions of the State which I have visited I have seen the Rural Press in greater or smaller numbers.

That it is doing a good work, contributing its full share towards the education of the people in the capabilities of Farm, Garden and Household, is a proposition, the correctness of which, admits of no debate. There is scarcely a number of the Press which does not contain hints and suggestions enough, if acted upon, to improve visibly and permanently the conditon of every man's home. But, education even to a knowledge of our most inexorable duties and our most apparent needs is a matter of time. Hints fall unheeded and instruction is passed by from time to time, but for all that, I have full faith that in the face of neglected counsel it is every man's duty to "sow his seed in the morning and in the evening withhold not his hand," that is if he has any seed to sow, or, what is the same thing in this present case, any advice which he considers of value to give.

After this long preamble let me get at once to the root of the matter I have in hand, and say that in all my travels I have found the homes and farms of California more lamentably deficient in the plain, simple matter of vegetables enough to supply the wants of the household, than any one knowing the value of vegetable food, the absolute need of it to preserve the health of men, women and children, would in the lack of close observation for a moment imagine. As a matter of course there are exceptions to this rule, hardly more than enough, however, on an average, to prove its existence. In my travels, however, I have noticed a great many abortive attempts to provide a supply of these almost indispensable articles. These abortive efforts are owing principally to two causes. I propose to discuss them.

Ignorance of the Soil's Capacity.

This perhaps comes first in the order of things. The soil looks barren; a spadeful thrown to the surface is sandy; is not loamy, or else it appears clayey; is not friable; in short, lacks apparently what Squeers said his soap possessed, and that is "richness." This is the first trouble. I have, from a knowledge of California soils, the right to deal in general assertions in this direction, and say this is a mistake on general principles. Fertilizing ingredients are so generally and evenly distributed throughout California that even the most forbidding looking spots if properly cultivated may be counted upon as available for all necessary purposes. So assuredly is this the case that I venture the assertion that almost every village lot is capable of producing all the radishes, lettuce, parsnips, carrots, salsify, celery, turnips, tomatoes, cucumbers, beets, early potatoes, cabbages and sweet corn, etc., needed for the household. Of course space must be economized to the utmost and the soil cultivated, not scratched.

It (the soil) must be *fed, too*, but this part of it will come under another head. Now supposing space economised, what is meant by that word of four syllables in italics? It seems, in the first place, that your garden plat ought to be spaded lengthwise, and the clods turned up, broken as fine as possible, by a good, stout blow of the spade. Then, it should be spaded again crosswise, and another breaking of lumps gone through with. Let it stand a week; give the air and sun a chance to pulverize it a little. Then put on your muck, compost, or well-rotted manure. Spade it again. Lay off your seed beds. Take an old-fashioned hoe, break up everything in sight in the shape of a clod. Rake the bed until it is smooth and level, and your work is properly commenced.

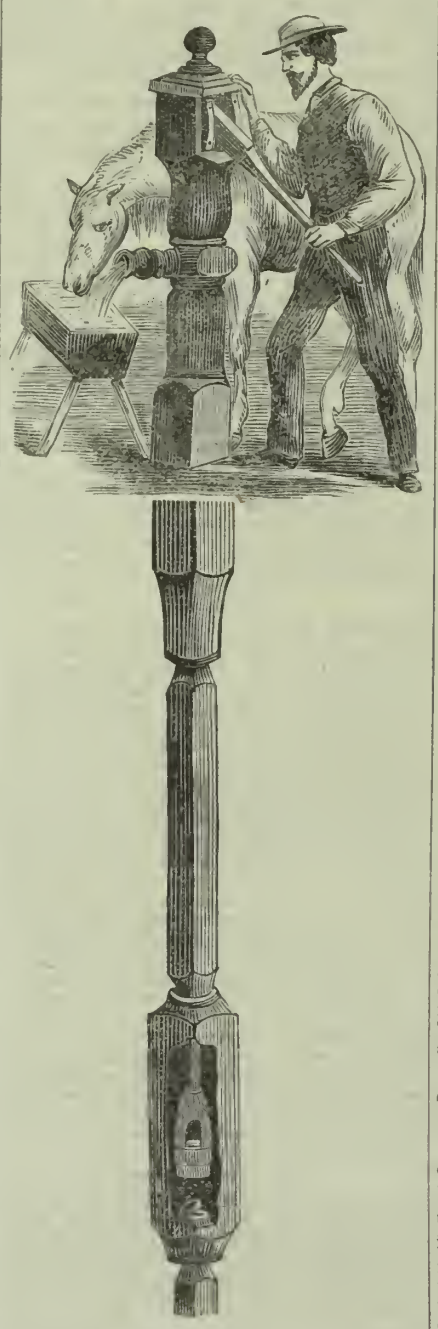
You can't expect nature to do her share until you have done yours. It is true, now, to do these things it will take you a week to do them properly; that is, if you can only work at odd hours, which very probably are otherwise wasted at the corner store, with a back room partly hidden by a swinging door of Venetian blinds. By that time the next issue of the Rural will be out, and perhaps may advise you of the next step necessary to enable you to have plenty of fresh vegetables, for less than a third of the amount you pay to middlemen and Chinese peddlers. H.

Fresh Grapes.—W. P. Pratt has shown the editor of the Calistoga *Tribune*, grapes which he put up in wheat chaff last fall, and kept in a dry, cool place, all winter, and which are now as plump and well flavored as when plucked from the vine.

Wooden Pumps.

Our attention has been called to the merits that pertain to what seems to us, like a "going back to first principles," or the re-establishing and substitution of the old-fashioned wooden pump of our boyhood days, for the thousand-and-one inventions of metallic pumps and pipes of the present time. The former conveying water in any direction and to any distance, as pure as when first received from the spring, well, fountain or reservoir; the latter, or metal pumps, pipes, and appliances, are objectionable because of the corrosive and deleterious effects that pertain to metal in contact with the acids, salts and alkalies of most waters, even apparently pure.

The Pacific Irrigating Pipe and Pump Co., S. F., manufacture wooden pumps and pipes for irrigating purposes, and for the supplying of towns, hotels, etc., with water; and the



claim is, that for durability, efficiency and cheapness it cannot be excelled. Under the action of alkaline soils, or soils impregnated with iron, the rapid destructibility of metal pipe is well known, while, without going out of our State for reference, redwood pipe has been in use in Stockton for sixteen years, and is perfectly good yet.

It will stand any reasonable amount of strain, having been tested by the Spring Valley Water Co., and found to sustain without injury a pressure of 60 pounds to the square inch in a bore of 2 inches in a 4 by 4 scantling. The company make a variety of pumps suited to different purposes. The stock pump, for watering cattle and for irrigation which throws a large volume of water, house and cistern pumps that work so easily that a child can operate them, and deep well pumps, as shown in our engraving, that lift the water with the greatest facility from any reasonable depth below thirty feet, by lowering the lifting valve to the required depth; in fact they seem adapted to all purposes, and will do any kind of work that similar pumps of metal can accomplish. An advertisement in another column will show the location of the Company's works, it being now a thoroughly established California industry.

Gypsum or Plaster.

Eds. Press:—I hear much, from persons who have "farmed" in the older States and Europe, of the great value of plaster to hay and grain crops, and would like to experiment with it this year upon my place.

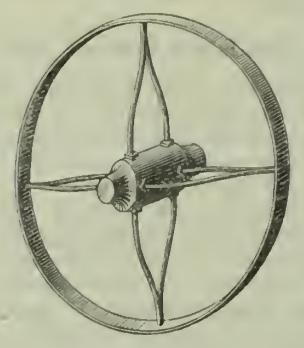
Can you inform me whether it has been tried in California; if yes, with what result, and where, and if it can be bought at such price as would be consistent with its value as a fertilizer? Amateur.

In the Rural of September 21st, 1872, we gave an article—"Why and How Does Gypsum Benefit Crops?" which, if Amateur can conveniently turn to—should he have the volume—it would interest him. In the meantime we would like to obtain the experience of any person in California who may have experimented with gypsum under our somewhat peculiar climate.

A New Iron Wheel.

The accompanying cut shows a wheel of improved construction, which is particularly applicable to wheelbarrow and truck-wheels, and the wheels of toy-wagons. Its construction is quite simple, and consequently cheap, while the peculiar method of making it will render it strong and durable. The tire is made of iron or other metallic substance. The spokes consist each of a metallic bar or rod, which is bent as shown, so that each half will serve as a bracing spoke. The bend of the rod is flattened, so as to fit against the inner face of the tire, and a rivet, screw or other fastening device, is employed to secure it in place against the tire.

The opposite end of these spokes or rods, which is next to the hub or axle, is provided with screw-threads, upon which a nut is screwed, and the end of the spoke enters a hole in the hub or axle, directly under the nut. By



WITHINGTON'S PATENT WHEEL.

screwing this nut up or down on the spoke the spokes can be tightened or loosened as desired, the nut being against the hub. By this means a strong, substantial wheel is constructed, which can be made very cheaply. For agricultural implement wheels it is particularly applicable. The device has been patented through the agency connected with this office, by George Withington, of Ione City, Amador Co., Cal.

The Culture of Tobacco in New England.

Editors Press:—Tobacco is doubtless more extensively cultivated than any other of our New England products. On its first introduction into New England the profits arising from its culture were so small that comparatively few engaged in its culture, but the late war witnessed an increase of price in tobacco as well as other products and luxuries. The soil of the lower valley seems to be well adapted to its growth and culture, producing a cigar wrapper the finest known to commerce, and destined ultimately to wrap the cigars of the world. In evenness and beauty of color, fineness of texture and smallness of veins, Connecticut seed leaf stands without a rival, while it does not possess the fine flavor of Havana and Paragnay for wrapping purposes, it far exceeds both of their well known varieties. For the last few years its cultivation has attracted more than ordinary attention, while numerous experiments have attested the fact that the finest tobacco is obtained by the use of fertilizers rich in alkoline salts and nitrogenous matter. Every thing available and valuable as a fertilizing agent has been tried, such as all kinds of domestic fertilizers, wheat, shorts, rye, bran, damaged by rain, bolted stems, Peruvian and fish guano, Indian meal, etc. Thus it will be seen that our growers are determined to find out not only the cheapest but the most efficient fertilizer. Doubtless, those manures produce the finest color, while baled stems, either Connecticut or Kentucky, gives a flavor unsurpassed. The demand for Connecticut tobacco seems to keep pace with the increase culture As an article of export it affords the shipper a source of profit as large as that of any of our great staples, while the demand seems to be unlimited. We export to Germany alone as many cases of seed leaf as we generally do in this country, while France and Holland, both of them tobacco producing countries, take one-third of our Connecticut crop. Previously its culture was confined to a few towns along the Connecticut river, but now it is the great product of two-thirds of the New England States, some towns growing nearly 1,000 acres each year. Notwithstanding the vast amount cultivated on tobacco farms and kept up by the application of vast quantities of commercial and domestic fertilizers, and unlike the tobacco lands of Virginia, will never become exhausted by this treatment. The vast amount of commercial fertilizers sold in New England is owing to the amount of tobacco cultivated. It would seem that we could hardly dispose of so large a crop as that of 1872, producing as we did 172,000 cases, yet of the crop, doubtless, at least one-half or two-thirds will be shipped. While the loss by rot and sweat is a source of discomfort it will not decrease the number of acres to be raised during 1873, but will tend to give an impetus to the crop, if a good one, above that of any recently grown; this is usually the case where a good crop follows a poor and indifferent one. While the crop of 1872 is working off slowly, and most of it yet is in first hands it will, doubtless, be taken at figures which will pay most of our growers. It is a product liable to loss and injury, more uncertain than any other which we cultivate, yet when of good quality and flavor bringing a price amply repaying the care and labor attending its growth.

E. R. Billings.

Somers, Connecticut.

Coffee Culture.

Eds. Press:—Will you have the kindness and let me know whether coffee trees can be raised from the ordinary coffee grains of commerce? I am in doubt on the subject. Amateur.

Another correspondent asks us if the coffee tree is an evergreen and at what age it begins to yield its fruit and to what size the tree grows? we answer: The ordinary coffee of commerce is not suitable for seed, because it is but half of the true coffee berry, and the splitting of the berry destroys the germ.

The coffee tree is from six to twelve feet high; the stem ten, twelve and fifteen inches in circumference. When it is full grown it much resembles in figure our apple trees of eight or ten years' standing. The lower branches ordinarily bend when the tree begins to grow old, and extend themselves into a round form, somewhat like an umbrella; and the wood is so very limber and pliable that the ends of the longest branches may be bent down within two or three feet of the earth. The bark is whitish, and somewhat rough; its leaf is much like that of the citron tree. It continues green all the year, and the tree is never without leaves, which are arranged almost opposite on each side of the bough, and at small distances from each other. Nothing is more singular in its kind than its productions; for almost in all seasons of the year blossoms and green and ripe fruit, may be seen on the same tree at the same time. When the blossoms fall off there remains in its room, or rather springs from each blossom, a small fruit, green at first, but which becomes red as it ripens, and is not unlike a large cherry, and is very good to eat. Under the flesh of this cherry instead of the stone, is found the bean or berry we call coffee, wrapped round in a fine thin skin. The berry is then very soft, and of a disagreeable taste; but as the cherry ripens, the berry in the inside grows harder, and the dried-up fruit being the flesh or pulp of it, which was before eatable, becomes a shell or pod of a deep brown color. The berry is now solid, and of a clear transparent green. Each shell contains one berry, which splits into two equal parts. When the fruit is sufficiently ripe to be shaken from the tree, the husks are separated from the berries, and are used by the natives, for the same purpose as the berries, while the berries are dried and exported.

Spaying Sows.

Eds. Press:—Your correspondent (McC) may be glad of a better description of above process than your extract from "*Moore's Rural*" furnished. In the first place get a long, slim packing needle, heat it in the fire and bend the point a good deal; then temper and sharpen well the point and both edges of the flat part. Provide also some stout saddler's thread. Starve the sows long enough to ensure empty intestines, not long enough to distend them with wind. Hang them by the hind legs at a convenient hight, and fasten a cord from their snouts to the bottom of the fence to prevent, as much as possible, their moving. Then, in a young sow, make a longitudinal incision in the belly, commencing between the first pair of teats (counting from hind legs) and cutting the opening large enough to admit the fingers. In an old sow begin between the second and third pairs. Find the "pig-bag," (womb) and feel along one side of it until the "pride," a small, dull red substance of shape of raspberry, is found; cut it off without injuring the bag, and then do similarly on the other side. In sewing up be very careful to get hold of all the skins (integuments) with each stitch. Take 3 or 4 stiches and tie each separately in a *square* knot, but don't draw tight enough to pucker up the skin. Let your thread be *doubled* two or three times. Feed sparingly and let them wallow in the mud.

The weather here has been more than we could hope for. It is said that a season of such continuous rains has not been seen in California for more than 20 years. Edward Berwick.

Carmel Valley.

Good Health.

Restless Discontent.—Doctors are often called to prescribe for anomalous complaints whose leading characteristics are furred tongue, want of appetite, disturbed sleep, constipation, feeling heavy in the morning, moroseness, stuffy temper, restlessness and general unhappiness. This state provokes excessive consumption of tobacco and spirits in men; and in women, crossness to children and servants, and a dislike to seeing company.

These symptoms follow persistent abuses of the system. The remedy lies not in medicine, but in reformation. Let the patient ask himself about his eating, drinking, smoking, and other indulgencies. Let him consider, one by one, every drain upon his system. Then let him try a little less loading of the stomach, less strong chiccory coffee, less tobacco, less drainage of every kind upon his nervous system. So sure as daylight follows darkness, there will become renovation of health and spirits without medicine.

There would come a great change in social life if we had moral doctors in the land. The excesses that poison our tempers, absorb us with frivolities and make trouble in social life, would be kept in bounds if every one had some fixed moral object to divert the mind from physical excesses, and from chronic ill-humor, which they always engender and transmit to offspring.

Management of the Teeth.—Tartar is an earthy deposit, which is made up of the solid constituents of the saliva, and accumulates around the necks and crowns of the teeth. The result of the deposit of tartar about the teeth is to cause the gums to be irritated, and then loosened from the teeth. When much tartar has collected about the teeth, it should be skilfully removed by a dentist, and only by a dentist, who will probably recommend some preparation of his own selection, to restore tone to the gums. The following is a good lotion, to be freely used after the removal of tartar, to strengthen the gums: Tannin, one scruple; brandy, half an ounce; camphor mixture, four ounces. To be used as a mouth wash, night and morning. In those in whom there is a disposition to the formation of tartar about the teeth it is only necessary for preventing its accumulation, to be very careful to cleanse the teeth thoroughly once a day, better still, twice, with a tooth-powder that is somewhat gritty; all the better is it if the gritty particles are soluble in water. The simple powders composed of chalk or cuttle-fish may be with advantage employed.

Yellow Spectacles.—The use of yellow spectacles instead of green or blue is proposed by a recent writer, on the hypothesis that yellow is the ray having the least actinic or photographic power. This error has originated in a want of knowledge of the fact that, of all the rays, yellow has the most powerful action on carbon compounds. Since the eye in its construction involves the use of such compounds, it follows that the yellow ray of all others will have the strongest action on the eye. This agrees with our actual experience; for the yellow is by far the most powerful light to the eye, and the universal preference for green and blue glasses is owing to the fact that these, by shutting out the rays that act with the greatest energy on the carbon compounds of the retina, produce a milder and less irritating action on the organ when by disease or other cause its sensitiveness is increased.

Physiological Effects of Cold.—Recent investigations show that the effect of intense cold upon the human system is the result of changes which take place in the blood, consequent upon a very slight decrease of the general temperature. It has been found that not only a very slight elevation of the general temperature, if being continued produces changes in the blood, which must inevitably prove fatal, but that when the temperature of the blood is lowered only a degree or so below its normal state, equally fatal changes are produced, although of a different character. The blood seems to be in both instances devitilized, becomes incapable of rejecting its carbonic acid, and thus poison is carried through the system, producing the same narcotic effects that the inhalation of carbonic acid produces. These investigations have shown the fallacy of the belief that any animated being can survive after being wholly frozen.

Cold Feet.—Never go to bed with cold feet without applying a hot brick, hot bag of sand, a jug of hot water, or some warming material. Cold feet are often caused by tight shoes, stockings or garters. When the feet are habitually cold, a smart walk or run before retiring, will often make them comfortable for the night.

A Poisonous Plant.—A few years ago there was in the Royal Botanical Gardens at Kew, a specimen of probably the most poisonous plant ever introduced into England. It was the Jatropa urens, the properties of which are so noxious that its possession is positively dangerous.

The ex-curator of the gardens was one day reaching over it, when its fine, bristling stings touched his wrist. The first sensation which he felt was a numbness and swelling of the lips; the action of the poison was on the heart, circulation was stopped, and he soon fell, unconscious; the last thing he remembered being cries of "run for the doctor." Either the doctor was skillful, or the dose of poison injected not quite, though nearly, enough to cause death; hut afterwards the young gardener, in whose house the plant was placed, got it thrust into a corner, and would not come within arm's length of it. He watered the offender with a pot having an extremely long spout. In a short time, however, the plant disappeared altogether, and another specimen of the genus Jatropa, which was afterwards introduced, vanished in the like mysterious manner. It was presumed that the attendants were secretly determined that such plants should not be retained in the houses, to cause the possibility of an accident such as that which happened to their curator. *The Garden.*

Emotional Excitement More Wasting than Intellectual Labor.—Serious and calm intellectual work is only very slowly destructive to the nervous health, while emotion, unless directed into proper channels, is highly destructive to the nervous system. The conventional ideas as to the propriety and utility of certain kinds of emotional excitement do visibly bear, in the experience of medical men, the very worst fruit possible. It is true that the emotion of repentance for real guilt is not a thing to be shunned; hut the habit of self-torturing introspection, which the clergy are especially earnest in recommending as a means of spiritual purification, is so far from promoting the existence of a really high and pure standard of ethics, that it ruins both body and soul, in the majority of cases, wherever it is applied on a large scale. More especially the habit of inducing unnecessary emotional excitement in young persons who are just entering the dangerous period of commencing sexual life is so morally and physically injurious to a large number of individuals, that it may well be questioned whether those individuals might not have been more safely left in total neglect and ignorance.—*Popular Science Monthly.*

The Inevitables of Moral Life.—Diseases of the kidneys, liver and brain, for which physicians formerly bled and purged with great hopes of success, we now regard as cases of disorganization, which afford no ground of hope. Nor in the utmost improvement of our therapeutics can we ever expect to find a cure for all the morbid conditions which may be revealed by pathology. A boundary has been set to the operations of the human body. Its machinery must wear out and run down. Age obstructs and deranges its organization. The days of our lives have been limited to three score years and ten, and though by reason of uncommon vigor they may be occasionally extended beyond four score years, still, from the very nature of the frame, it must at last experience decay; and alchemy there is none, by which it can recover its healthful action.

Cause of Scurvy.—M. Leven, being in charge of one of the hospitals of Paris during the siege, made a study of scurvy, and concludes that it is not produced by a want of vegetables, nor are vegetables indispensable for its cure, but that it is the result of bad hygienic conditions in those who contract it. Cold, dampness, excessive work, moral depression and insufficient alimentation, he thinks are the principal causes of scurvy. He believes it to be a fatty degeneration of muscular system, beginning in the heart, and those muscles which are most active, when the degeneration appears in the liver, kidneys and their organs. A great number of cures were obtained by the use of raw meat without vegetables.

Mental Vigor in Old Age.—It is related of Arnauld, the Jansenist, that he wished his friend Nicole to assist him in a new work. Nicole replied: "We are now old; is it not time to rest?" "Rest," exclaimed Arnauld, "have we not all eternity to rest in?" Dr. Samuel Miller says: "There is no doubt that the premature dotage of many distinguished men has arisen from their ceasing, in advanced life, to exert their faculties, under the impression that they were too old to engage in any new enterprise of industry.

Boys Using Tobacco.—A strong and sensible writer says a good sharp thing, and a true one too, for boys who use tobacco: "It has utterly spoiled and utterly ruined thousands of boys. It tends to the softening and weakening of the bones, and it greatly injures the brain, the spinal marrow, and the whole nervous fluid. A boy who smokes early and frequently, or in any way uses large quantities of tobacco, is never known to make a man of much energy, and generally lacks muscular and physical as well as mental power. We would particularly warn boys who want to be anything in the world to shun tobacco as a most baneful poison."—*Exchange.*

Useful Information.

Interesting Discovery—Can the Crawfish Reproduce Eyes?—A curious discovery has just been made by a savant here, writes the Paris correspondent of the *Pall Mall Gazette*, though there is some doubt as to the benefit which either humanity or the crustaceous fish operated upon will derive from it. Mr. Chantran has long been engaged in studying the natural history and physiology of the crawfish, and from a paper just read out before the Academy of Sciences, it seems that this careful observer has found out that when young crawfish are deprived of their eyes, new ones will grow in the interval between the shedding of two shells, and this is a perfectly normal fashion. But when adults are operated upon, the regeneration of the eye is slower and more irregular; and not only is the organ generally deformed, but two eyes often take the place of one.

How to Clean Paint.—A chemical journal gives the following advice: Use but little water at a time; keep it warm and clean by changing often. A flannel cloth is better than cotton. Be careful of soap. Put but a little soap or skim-milk in the water; add soap to the cloth when needed. A sharp piece of soft wood is indispensable for the corners, the point will become like a paint brush. A saucer of sifted ashes, used where the paint is badly smoked or fly-specks are thick, is better than soap; wipe last with clean wet towel, and don't spill a drop of water. Never put soap on glass unless it can be well rinsed, which can never be the case with windows; wash off dirt in clean warm water and dry; then, with a paste of whiting and water, and with a cloth, place a little in the center of each pane. With another cloth rinse over the glass; next rub off with a dry cloth till the window shines like crystal.

Separation of Brass and Iron Turnings.—The following item is from the Berlin *Industrie Blatter*. We do not know their source of information, but from the character of the publication, suppose it to be trustworthy. "In order to separate such filings it has been customary to draw a magnet by hand through the mass, thus taking out the iron and steel while leaving the brass. Recently a very suitable machine appeared for saving this tedious hand labor, invented by a French Engineer named Bavin, in the machine works of Cail & Co., Paris. Now, however, Mr. Webb employed in the splendid works of the London and Northwestern Railway, at Crewe, had reached the desired end by a very simple and economical process of smelting.

The mixed iron and brass turnings and brass slag are mixed with limestone, coal-dust, and oxide of iron or iron scales, and smelted; the brass settles through the fluid slag to the bottom and is run off into ingot mold."

Seasoning Wood.—A writer in an English journal informs us that a small piece non-resinous wood can be seasoned perfectly by boiling four or five hours, the process taking the sap out of the wood, which shrinks nearly one-tenth in the operation. The same writer states that trees felled in full leaf in June or July, and allowed to lie until every leaf has fallen, will then be nearly dry, as the leaves will not drop off themselves until they have drawn up and exhausted nearly all the sap of the tree. The time required is from a month to six weeks, according to the dryness or wetness of the weather. The floor of a mill laid with poplar so treated and cut up, and put in place in less than a month after the leaves fell, has never shown the slightest shrinkage.

Loss of Heat in Cooking, Etc.—It has been computed that, in common domestic fires, seven-eighths and even more of the heat capable of being evolved from the coal pass up the chimney unapplied, so far as mere warming is concerned. About half of the heat generated by the fire is supposed to be carried off with the smoke, about one-fourth in the constant current of the warmed air of the room into the chimney between the mantel-piece and the fire, and the remainder of the loss of heat is represented by the unburned particles of carbonaceous matter in the smoke.

Wholesale Burning of Gas.—One of the gasometers of Manchester, England, was recently discovered to have a large burning jet issuing therefrom. All efforts to extinguish the flame were ineffectual, until the entire contents of the gasometer 600,000 feet of gas, were consumed. Many residents in the immediate vicinity made hasty removals, fearing an explosion, but none occurred. Nothing is known as to the cause of the opening by which the gas escaped or the origin of the fire. The occurrence was one of a very singular nature.

A Summer Boot.—The bottoming of the boot for summer should be of medium thickness, but if any, rather thicker than thinner, so that the surface of the sole of the foot may be thoroughly protected from the ground and stones.

The disadvantage of a thin sole is that it produces callosities at the bottom of the foot, at the parts corresponding to the bones where they are formed.

The Storm Signal System has been reduced to such a nice point in England, that when the storm ball is run up at Greenwich, it is telegraphed to every part in the kingdom. Any vessel that leaves the port after the ball is up forfeits its insurance.

Domestic Economy.

Baked Beans.

White beans may be considered one of the substantial dishes. When properly cooked, they are wholesome to a stomach of normal strength, if the taker be accustomed to active exercise. They are not so good for the sedentary, but the greatest difficulty in digesting them results from the fat usually cooked into them. They may not relish quite so well without this at first, but proper cooking will help greatly, for they are much richer if cooked in but one water and that not drained off. The very water that is called strong, and thrown away when the beans are half done, would, if cooked make a toothsome soup. Let it remain, having the beans nearly full of the liquid, and salt just before serving. They should cook gently but thoroughly, being kept covered, so as not to lose the flavor. The time required depends much on the age and variety of the beans. Some will cook in an hour and a half, while others will require three hours. They are best very tender, beginning to fall to pieces, but not so soft as to become thick and pasty with the necessary handling. Some prefer them thick; but in that case they seem to require some trimming—while, if more moist, they become a trimming to other dishes, especially to the potatoes eaten with them. Indeed, it makes a very palatable dish to cook the potatoes with the beans, being careful to serve them as soon as the potatoes are done. A more stylish dish in appearance, hut no more palatable, is made by placing the beans, when nearly done, in a nappy (in which they can be served,) covering, the surface neatly with potatoes pared and halved, and baking until the latter are done. Some like a squeeze or two of lemon over them on the plate, and to most tastes they serve well with rather acid fruits, like cranberries or sour baked apples, or with cold or warm slaw, while sweet potatoes and rye-and-Indian bread form an agreeable contrast.

Bean soup is a dish that many people, and especially children, would relish if properly made. It requires about half a pint of cooked beans for a quart of soup. Mash and boil until well diffused in the water, and then run through a colander to take out the skins. Thicken with about one gill of wheat meal, and add a sprig of thyme if desired. Boil five minutes and salt to the taste.—*Science of Health.*

Warm Plates for the Table.

Warm plates are most satisfactory adjuncts to the breakfast and dinner table, for without them all articles of food will cool rapidly; and during this last cold snap a cold plate would have quickly transformed sausage, steak, fried potatoes and buckwheat cakes into decidedly "cold victuals," and frequently the difference between a good dinner and a poor one depends upon a warm or a cold plate. And in no case are they so needful as when mutton is served, for its fat melts only at a high temperature, and quickly becomes congealed upon a cold plate, making it very repulsive excepting to a Greenlander or Esquimaux.

Now, it is a very easy matter to warm the plates, if a little attention is paid to them, and when the breakfast table is laid the night previously, the plates can be placed in the tin oven at the back of the stove, or on the oven connected with the range—or if neither of these places are come-at-able, they can be put inside of the stove oven, as that is an article which every house is supposed to possess. After they have become warm enough, they should be put into a cooler place, but not so cool that they will lose too much heat.

The furnishing stores offer very handsome plate-warmers, made of Japanned ware, and also racks of galvanized iron wire, which can be placed upon the stove, or over a hot air register. When plates require to be warmed in haste, they can be dipped into boiling water, and then wiped off.—*Country Gent.*

Economical Cookery.

In all departments of housekeeping it costs less to be neat, orderly and systematic, and to know just how much butter, sugar, eggs and flour to use on baking day, as well as just how long to boil or roast a nice, tender piece of meat, that it may not be toughened, and its sweetness and nourishment cooked away.

Good housekeepers know so many ways to economize, of which an unpracticed hand is entirely ignorant. Experienced cooks make delicious and inexpensive dishes of odds and ends left over from meal to meal which in most housekeepers are more or less wasted. Who would believe that the well picked bones of a roasted chicken, with two or three little beef bones taken from the broiled beefsteak which has served at breakfast, boiled two hours in about a quart of water, will make excellent soup good for the sick and tempting to the most delicate taste? Try it and see.

Soup is strengthening, and can be made much cheaper than most people imagine. Beef bones are just as good for soup after they have been roasted as any, and save much expense.

There is no accomplishment for which woman has so much reason to congratulate herself and be proud, as for being a good housekeeper, and the foundation of housekeeping is to be a good cook.—*American Farmer.*

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SAN FRANCISCO:

Saturday, March 22, 1873.

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IMPROVEMENT IN STRAWBERRY CHESTS.—As the berry season is just at hand, it may not be amiss to notice a marked improvement in chests now for the first time offered to the trade. The drawers have formerly rested upon small cleats and one chest would only auswer for a single size of drawers. By using a shelf of thin wood which slides into grooves in the partition, cut by the saw, any size of drawer can be used in the same chest,

This improvement is a marked advantage and a great convenience. Various styles of free packages are just suited to shipping in these chests. They, with other improvements in boxes, can be found at the Union Box Factory whose advertisement will be found in another column.

WHERE ARE THEY?—Through one of our correspondents who has been traveling over the State for the last two months, we are asked where can stock growers find "Sonth Down" sheep?

We regret that we are unable to answer the question, as this breed has not yet been advertised in our columns; but we hope soon to be able to give our readers the necessary information. Spanish and French Merinos are advertised.

ONE OF THE ABSURDITIES.—R. S. C., of Tulare Co., says: "Should the time of my subscription run out, just let the paper come right along, and rest assured your money will be forthcoming; for it is one of the greatest absurdities of the age, to live on a farm in California without the RURAL PRESS." Auswers to questions relating to nnderground irrigation, next week.

Jersey and Alderney Cattle.

As many of our readers desire information relative to this superior breed of cattle, we have taken the trouble to visit the corrall of Mr. Adolph Maillard, at San Rafael, to whom is due the credit of introducing into this State a breed of cattle so well adapted to our mountain ranges.

In 1868, Mr. Maillisrd brought with him to this State, *i. e.* to his ranch, in Marin county, four Alderney bulls and two heifers. The thrift and increase of these were all that could be desired, and in 1870 he imported one bull and seven heifers. In January, 1873, five bulls and thirty-six heifers, every head having a certified pedigree, and carefully selected by Messrs. A. B. Allen and M. C. Weld, from the herds of the following named breeders: Wm. Dinsmore, S. and C. Sharpless, Dr. Twaddel, C. Biddle, F. Wood, G. Brown, Wm. Crazier, R. S. Maitland, Taintor, E. Howe, L. Howe, R. Stockton, Harbman Kuhn, Swain, of Westchester, M. C. Weld, Thos. Scattergood and Jefferson Shaver.

These cattle were selected without regard to expense, from the very best butter cows; the dams of some of the heifers have made two pounds of butter per day. The hair on these cattle is soft and fine, like that of a deer. They are gentle and tame as a house cat, hardy, and easily kept. A dairyman writing to the *National Live Stock Journal*, Chicago, March No., 1873, says: "I can keep *three* Jersey cows on the same amount of feed that it will take to keep *two* Shorthorns. This I know to be a fact, for I have fed both; either of the Jerseys will make more butter in a year than both the Shorthorns, and of a much better quality. It took a fractiou over 25 pounds (12 quarts), of the Shorthorn cow's milk to make 1 pound of butter; and it took of my Jersey cow, "Rosa Lee's" milk, 17 pounds (8½ quarts), to make a pound of butter last Jnue. At the present time it takes only 10½ pouuds (5¼ quarts) to make 1 pound of butter.

I cannot see any profit in feediug a cow that weighs 1,400 pounds for ten years when one that weighs 800 pounds will each year produce more than sufficieut butter to make up the difference in the value of the cows for beef." Even in Illinois, and other States where the winters are severe, they have, for the last 20 years, maintained as high a reputation for hardiness, as any other breed of cattle in this country.

For the butter dairy, the Jerseys take the lead, yielding less milk, but with a larger per cent. of cream that makes rich, yellow butter.

At the Massachusetts Agricultural College, they have a large stock of choice cows, representing most of the leading thoroughbreds, and they have been systematic in endeavoring to ascertain the qualities of each breed. The statement is as follows:

"Yarico" 57, Shorthorn, 2-years old, weight 1,300 pounds, greatest yield of milk 16½ quarts, and per cent. of cream 10.

"Autumu Rose," Shorthorn, 4-years old, weight 1,095 pounds, greatest yield of milk 17 quarts, and per cent. of cream 12½.

"Emma" 3d, Shorthorn, 2-years old, weight 912 pounds, greatest yield of milk 11¼ quarts, and per cent. of cream 11.

"Lulie," Ayrshire, 4-years old, weight 977½ pounds, greatest yield of milk 19¼ quarts, and per cent. of cream 13½.

"Beauty," Ayrshire, 18-years old, weight 855 pounds, greatest yield of milk 20 quarts, and per cent. of cream 12.

"Rosa," Jersey, 4-years old, weight 880 pounds, greatest yield of milk 10¾ quarts, and per cent. of cream 16.

"Pauline," Brittany, 2-years old, weight 545 pounds, greatest yield of milk 8¼ quarts, and per cent. of cream 14.

So far as this statement goes, it shows that the Ayrshires take the lead as milk producers, the Short-horns for size and the *Jerseys for per cent. of cream*. The point is to secure the best cattle for the object desired, always considering the character of the locality, and to breed for that object. Breeding for milking qualities is different from, and inconsistent with breediug for beef.

Again, at the semi-annual session of the Maine Board of Agriculture, held a few weeks since at the Central town of Winthrop, adjoining the Capitol of the State, there were present 200 farmers, nurserymen, orchardists and others. One of the debatiug dairymeu stated that he had made 400 lbs. of butter in a year from a Jersey cow. Some were selling butter at home for 40c. per lb., and in the Boston market for 45 cents; and several of them, citizens of Winthrop, had unitedly filled an order from Colorada for $3,000 worth of Jerseys.

We are glad to learn (through communications received by us) that many California dairymen propose to test the qualitiesof this excellent breed of cattle.

Mr. Mailliard, after disposing of a number of his full-bloods, has now a herd of over fifty head, from which he will sell only bull calves, which readily command $100 per head. Having disposed of hts thoroughbred horses, he is now devoting his attention entirely to the raising of the Alderney or Jersey cattle.

Mr. M. now has in his corrall the following thoroughbred bulls of certified pedigree:

"Emperor Billy," 5 years old.....
"Saratoga," 3 years old.....
"Beacon Comet," 2 years old.....14th of the name.
"Beacon Comet,".....15th of the name,
"Pert,".....of Sea Gull tribe.

Those who desire to improve their stock will do well to call upon Mr. Maillard, at San Rafael, where they can be supplied with bulls for less money than they can be imported.

An Important Invention.

A short time since we made mentiou of an iuvention by Mr. D. Morey, of Watsonville, of an attachment to threshing machiues, by which the straw may be used as fuel for running the engine.

On Monday last, in company with a number of scientific gentlemen, we had the pleasure of witnessiug a test of this invention, on the premises of Mr. H. W. Rice, a well known machinist at Haywood, which gave the utmost satisfactiou, and promises to be the most economical machine that can be used on a farm. The object of this invention is to utilize straw as fuel for the purpose of generating steam, instead of wood or coal. The attachment is exceedingly simple in its construction, made of heavy sheet iron, and weighs when completed only 75 pounds. All that is necessary to put the machine in working order is to open the furnace door, attach the machine by a hasp to the door catch, and two small rods of iron to the hinges of the door, when it is ready for operation. This may be removed whenever desired in a few minutes time. Abont three hundred pouuds of dry wheat straw having been brought to the machine and a feed fork full thrust into the furnace which was cold, (not having been in use for some time), the fire was started and in precisely thirty minutes, steam was raised, in forty minutes from starting the fire, the steam gauge indicated forty pounds pressure, and in forty seven minutes, seventy pounds.

At the expiration of one hour but 150 pounds of straw had been consumed; in the meantime the power had been used running two engine lathes, an iron planer, drill press, and grindstone; the pump being put on the boiler was quickly filled with water to its utmost capacity without diminishing the pressure. The machine having been tested to the satisfaction of all present, Mr. Rice, desiring to operate his engine lathes, planer, drill press, etc., kept up steam for six hours, consuming in that time only 200 pounds of straw, proving that *one ton of straw per day* would be amply sufficient to run the thresher. Even were five tons of straw per day necessary it will be a vast saving to the farmer, who invariably burns the bulk of his straw to get it out of the way.

Straw has been proved to be a superior fuel for the threshing engine, when properly used; it makes a very hot fire, the whole interior of the furnace being filled with a roaring flame which sweeps through the flues and heating the water in a remarkably short time. To run a threshing machine it requires only one-twentieth of the straw from a separator, and a boy twelve years of age can attend to the straw feeder with ease, or for that matter the engineer will have no difficnlty in attending to the feeder himself.

There are also many advantages from nsing straw; there are no sparks, and of course there is no need of a "spark arrester"—no danger of setting stacks or stubble on fire; furthermore, the fire from straw does not burn the iron as does that from redwood; there being no cinders it is very little trouble to clean the flues.

Mr. Morey has expended considerable time and money in experimenting, and is now rewarded by the invention of an appliance, that will revolutionize the threshing of grain, and save a vast amount of money yearly to the farmers in the way of wood, especially in localities where wood is scarce. Mr. Morey procured his patent through the agency of Dewey and Co., and is now prepared to receive orders for his attachment.

HORTICULTURE.

Visit to Some of the Nurseries and Floral Establishments of Oakland.

Among the many attractions in a rural and horticultural point of view in that beautiful suburb to San Francisco—like Brooklyn to New York—Oakland—are the nursery and floral grounds belonging to the professional salesmen of fruit and shade trees, shrubs, evergreens, plants, cut-flowers, etc., etc. The facilities for the successful cultivation of this most useful and ornamental portion of the vegetable kingdom are here very considerable. The ground is level, and the soil, originally adobe, has a strength, stamina and natural fertility, which is highly advantageous, with the assistance of manures and judicious mechanical cultivation, to make robust and healthy nursery fruit and floral stocks.

The first nursery we visited was that of Mr. W. F. Kelsey. Upon entering the grounds the most beautiful object which at once attracted our notice was a large, oval, fenced bed of splendid hyacinths glowing with all the fine effect on the eye which the prevailing popular colors of blue, white and pink with all their different shades are capable of producing. These were all named varieties of this highly esteemed bulb. The sweet and delicious aroma emanating from such numerous spikes of blooms could be enjoyed even at some distance from the borders. There was also a tulip bed near by of choice kinds.

We noticed the small conservatory near the entrance contained some good flowering plants, among which the Cinerarias and Primulas shone conspicuously. The premises comprise many acres, well furnished with fruit trees, evergreens and plants of many varieties and kinds, notwithstanding the greatest sales were over, and the proprietor hardly wished any notice to be taken of them till next season, when his premises will be again well filled up. The buildings, chiefly consisting of a large handsome boarding house and Mr. Kelsey's private residence, were prominent and pleasing objects on the estate. Mr. Kelsey has a most desirable place for boarders.

From this place, passing over across the avenue we entered the very neat and well kept plantation of Mr. James Hutchison consisting of about three acres and a half, nicely laid off, and containing a large collection of evergreen trees, ornamental shrubs and flowering plants. The rows of Golden Arbor Vitæs were very attractive and beautiful in their sun-like coloring. Mr. Hutchison has a large portion of his ground and stock under glass, and is still continuing his plant houses, so as to form on one side of his dwelling, three sides of a square that visitors can walk continuously from one house to another. Nothing in this neighborhood probably, can surpass Mr. Hutchison's collection of fuschias, carnations, verbenas and roses. Mr. Hutchison's management of his business is evidently very systematic and personally particular in attention and industry, so that he has built up a very thriving sale-garden. Mr. H. informs us that he has three pests—the slug, scale insect and red spider, which give him some trouble at times.

We regret to say that as we had gone over to Oakland rather late in the day we had only time on this trip to visit one other nursery and floral place, that of Mr. John Hampton, on the same street-car avenue. His four-acre lot evidently bore the marks of having been largely drawn upon by customers this season, as he himself stated. A glance into his greenhouse was sufficient to satisfy us that Mr. H. had not neglected to furnish himself with many valuable and some new plants. He has a large lot of the Norfolk Island Pine, *Araucaria excelsa*, and a new Ficus — Macrophylla, Fan Palms—Corypha Australis; Double Variegated Petunias; a large collection of New Verbenas, of the finest varieties, all named; a new Fuschia, just imported from Europe; many kinds of Australian shrubs; Terrena Asiatica, marbled new-blue Sanchesia nobilis, variegated zebra-like; the Artillery plant, *Pilea Serphyllifolia*, a genus of *Urticaceæ* (nettle-worts), which, when water is poured on it, discharges or projects its seeds some distance; with many other choice plants and flowers.

The day was rather cloudy, with a cool wind, and the weather hazy, so that we could not see all these places, nor the lovely private villa residences in Oakland to the greatest advantage, but we hope on our next visit to some other of the nurseries to enjoy California's charming skies in their utmost perfection.

The Chicago Taylor Printing Press Company.

The accompanying cut is a very good representation of the new and very superior steam printing machine we have recently put in operation in our printing establishment, and upon which all our issues will hereafter be printed. The improved appearance of our paper already accomplished speaks very plainly in favor of the *superiority of this machine over all others now built in this country*, and when it is better understood by those who operate it, and gets down to its bearings and work, this improvement will be more and more marked until we can give our readers a sheet which in mechauical execution is the peer of the best similar publication at the East.

As this is the first introduction here of this class of presses, made especially for extra fine engraving work, and our readers are to examine its work weekly, we take the privilege of indulging in a long talk concerning the machine and its builders. Every printer will be entirely interested in it, and the general reading public, we believe, benefitted by the facts we propose to set forth.

The heavy cost attending the purchase and starting such a machine as this is an important matter, and the absolute necessity having arisen of our procuring a machine of our own on which to print our own papers, made it necessary for us to examine into the merits of the various manufactures of printing presses at the East. After canvassing the matter very thoroughly, and consulting parties whose opinions in this particular is good evidence, and seeing other machines from the Chicago Taylor Printing Press Co., running in this city, we were forced to the conclusion that in all points of excellence this machine was not only the great favorite all over the Northwest and in the Territories, but indeed the best printiug machine now built in this country.

In October last, the President of the Company, S. P Rounds, Esq., of Chicago, visited this city and learning that we were on the point of putting up a new press volunteered to take the risk of sending a machine here—putting it up in our office, and guaranteeing it to operate to our entire satisfaction or no sale—aud considering the heavy expense of the machine, the freight on it overland, and cost of putting it in operation, the heavy risk assumed by him at least proved his confidence in the press; and we are much pleased to add that he has not only fulfilled his contract to the letter, but that the machine operates even better than the guarantee, and that we are in every particular pleased with our choice and the purchase.

History of Press Building.

The history of the commencement and progress of the manufacture of the printing press iu this country is a very interesting one, and had we the time and space to spare, would be pleased to give it in full, but as we have not, we will give only a brief aynopais. The first effort in this line was the "Rsmage" two-pull hand press, whioh wss the only press in use up to about the year 1820, when the Stanhope press, invented by the Earl Stanhope, in Englsnd, was introduced into thia country. This was soon followed by the "Ruthven," which had some Improvements. In 1823 the first iron one-pull press made by Wells, of Hartford, Conn.,was brought out. At ahout the same time the "Smith" press, and shortly after the "Wsshington" press was hrought out by R. Hoe & Co., of New York, and which presa made both by Hoe and Taylor is the standard hand press of to-day.

Up to 1826, no successful attempt had been made in perfecting a power press. In 1824 a Mr. Treadwell invented one, but it was imperfect. After a trip to Europe, and many experiments, the press was msde to operate very well hut was a crude affair. Sometime in 1824-6, the first "cylinder" or "Napier" press was imported from England for the joint use of the New York Daily *American* and the New York Daily *Advertiser*, the first an evening, and the latter a morning paper. Shortly after this Messrs. R. Hoe & Co., commenced the msnufacture of cylinder presses in thia country, which they hsve continued, father and sons to the present day—beinq jointly with A. B. Taylor, Esq., of New York, the "fathers of the cylinder press in this country." We should have said that about this time the later justly celebrated Adams' Book press was invented hy Isaac Adams of Boston. At first it had a wooden frame and was a cumbrous and rather uncouth affair, very unlike the handsome and finely built machine of to-day.

At the time Messrs. R. Hoe & Co. began building the their foreman, and really constructed the first cylinder press ever made in this country. He continued in their employ for a term of yesrs, when he started a manufactory for himself, and invented and added to the press then huilt by Hoe, many improvementa, among them the celehrated air spriugs—a very desirahle feature which haa from that day to the present made the press a very popular one—so that the "Taylor" press is as well known to printers as Its cotemporary, the "Hoe" and is in use in almost every large office from the Atlantic to the Pacific, very many of them having heen in uao from the early daya of our own city to tho present, In many of our city offices.

For some twelve years previous to 1867, Mr. Taylor's eldest son, George W. Taylor, who had received a thorough education in the hest schools in thls country and Europe, and a thorough mechanical one in his father's shops, and in them had acted as Superintendent aud Draughtsmsn; failing in hesith from the raw sea winds, he conceived the Idea of eatablishing a new manufactory of the Taylor press in Chicago. Accordingly in that year he moved thither and associated himself with S. P. Rounds, who had for twenty years transacted a general Prir ter's Furnishing Business in that city, and was well snd widely known by the printing fraternity of the great North West.

George W. Taylor, was douhtless the most thoroughly accomplished Printing Press machinist and inventor this country ever saw. Young, ambitious, keenly alivo to the necessity of keeping pace with the times in all improvements—listening to the suggestions of practical pressmen—and knowing full well the vital necessity of msking an article which should combine all the excelleucies, improvements, and conveniences possihle to attaiu, he at once made an entire new set of drawings and patterns—retaining all the excellencies of the old machiue, and addiug numerous new ones—aided by new snd improved machinery, and also by the favorable acquaintauce and practical business experience of hia partner, the new firm met with the most flattering success from the very first, and at once took a leading rank in the press building interest.

The machines huilt hy the new firm gave the most spleucyliuder press, A. R. Taylor, Esq., of New York, was and in Napa, Santa Barhara and other places in this State. Next comes the "Combination," their

New and Latest Sty e,

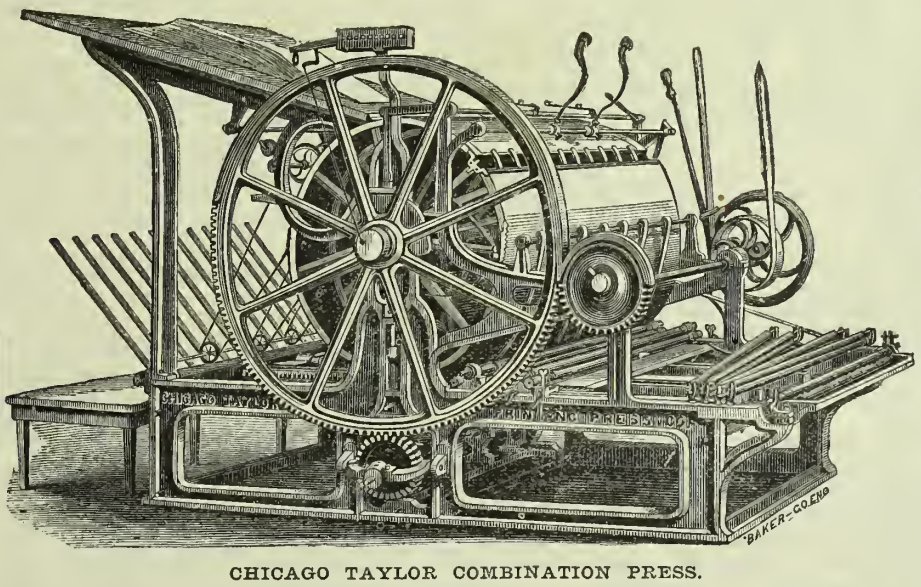
Aud in coat hetwcen their "Country" and "Regular." This is the machine represented hoth in our office aud in the accompanying engraving.

Thia press combines all the hest features of the two other styles - has the combined rack and screw and tahle distribution — making it absolntely perfect, doing away with the intermediate wheel and universal joint—those prolific sources of wear, lost motion and imperfect register, taking the power direct from the cylinder wheel to the rack helow—thus ensuring ahsolutely perfect register. It has the new "well" fountaiu, the new and positivo "gripper" motion, patent feed guides and "grasshoppers," and is built very simply, strongly and perfectly. Having the closeat register of any press now built, the most thorough ink distrihution, and three and four inking rollers, with right and left vi brators on the top of these and eight rollers on the tahle. This machine is peculiarly adapted to all kind of plain and colored letter press work,

Illustrated Newspaper,

And the very finest descriptiou of book work. It is so strongly huilt—having the celebrated "air springs"—and withal so very simple it can he run at a high rate of speed. Of this kind of presa there are now three sizes huilt. The one we have in uac is the largest, hed 34x53 inches hetween bearers, and costing boxed and delivered on the cars at manufactory at Chicago, all complete, with counting machiue attached, $3,610. Next comes the three roller "Douhle Medium," hed 25x38 inches hetwecn hearers, the handiest and hest combined hook and job presa made. as it will print any and everything. from a common hill head to a hook form of 16 pages: price, on cars, $2,370. Third and last, the three roller "Super Roysl," same style, hed 21x33 and price $2,030.

Then follows the "Regular" fast first-class drum cyliuder. This presa ia built very heavy and strong and finished iu the highest style. It is iutended more psrticularly for very heavy and fsat work, such as railroad and fine colored printing. Its distributiou, register, and general points, are the same as In the press we hsve in



CHICAGO TAYLOR COMBINATION PRESS.

did satisfaction from the first, and in the short space of five years they have built hundreds of them, which from the hest information we can gather, are every one giving the most hearty satisfaction, and running in the hest offices in the Northwest, portions of the South aud East, Colorado, Utah, Nevada, Oregon, and in our own city and State.

In 1869, just as the reputation and success of the new enterprise was triumphantly estsblished, and his name and fame "written in letters of steel" in almost every office In the great West, Mr. Taylor died, but not until he had left well-educated successors to carry out his ideas and improvements. The husiness at this period waa put into a company called the

"The Chicago Taylor Press Company,"

With the remaining psrtner as Its Presideut aud head, and to whose great experience as a practical printer and pressman, dealer in printers' insterial and manufacturer of the presses, is the company indebted for its constant and unvarying success. A new and very large brick manufsctory was erected—sn entirely new and elegant and very extensive and expensive seriea of machinery put in operation, and the popularity and excellence of their machine is evidenced by the fact, that they have never as yet been able to keep up square with its orders, tho igh often running douhle sets of hands, night and day, and we had to wait nearly three months before we could get our press huilt. However, we are assured by the Presideut that by recent additions of men and machluery he hopes soon to be abl- to keep one press of each size and style on hand with which to meet urgent orders. Tho compauy is now building

Three Different Styles of Presses

And different sizes of each style. First, there is the so-called "Country" Drum Cylinder—a machino combining all the real excellencies of the more costly press, hut not built so heavy or with aa fine a finish, and made to run at a slower apeed—aay 1,000 to 1,500 per hour, by steam, and 800 to 1,000 hand—and afforded at a figure to meet the uecessitica of the "country" puhlisher, who cannot afford and does not require a faster press. No. 1, is 32x46 inches hetwecn bearers aud is afforded at $1,474, hoxed and delivered on cars, aud No. 2, 32x50 inches, at $1,705, steam fixtures $70 extra. This style of press is in general nse in all the well-to-do offices in the Northwest and in Colorado, Utah, Nevada, Oregon, nse, but the frame is made extremely heavy, four very heavy cross stays and otherwise huilt in proportion. Of th's style the company is at present building four sizes: Medium, 23x28; Super Royal, 25x33; Douhle Medium, 29x42; and Double Super Royal, 34x53; the prices ranging about one-third higher than for the "Combination."

The company also builds Double Cylinders, of all sizes of the well-known "Taylor," Washington hand presses, proof presses, paper cutters, etc., and are prepared to make drawings and patterns for any dcaired size of either of their drum cylinders.

This company being emphatically the Western Pioneers in the manufacture of printing presses—and having, by dint of western pluck, hard work, and conscientious dealing already secured a splendid reputation and standing—and having so fully and honorably fulfilled its contract with us, our sympathies are entirely in its favor, and we will take pride and pleasure in showing any purchaser or publisher on the Pacifio Coast our beautiful machine in operation. The company have a just claim on the patronage of all western printers, aud as long as it deserves, should have it.

It is perhaps due to our enterprising and well known fellow citizen, Geo. L. Faulkner, Esq., of the California Type foundry, 405 and 407 Sansome St., to state that our attention was first called to this machine by him—and that he is taking an active part in introducing it on the Coast, as agent, aud in connection with his extensive Printers' Furnishing aud Type Foundry Business, and he will take pleasure in answering all inquiries in regard thereto—sending the company's elegant book, the "Pressmans' " Guide and "Press Catalogue" to all applicants, or showing the different kinds of the presses now in opcration in this city.

Messrs. H. S. Crocker & Co., Messrs. Carr, Dunn & Newhoff, and Messrs. Winterburn & Co. alrcady have them in use, and other parties are about puttiug them iu. Mr. F. has also recently sent them to Portland and Salem, Oregon, Carson City, Nevada, Napa and Santa Barbara in our own State, and already has and will keep both sizes of the "Country drum cylinder" on exhibition in his foundry. We also understand that Messrs. Painter & Co., the old and reliable type founders are also acting as agents for these machines, and are also prepared to fill all orders promptly.

Finally, when it is considered that freights are about the same from Chicago overland on these machines, as by the Isthmus route from New York, and a great deal of time is saved, and that in case of breakage by accident or otherwise (all the parts being made interchangable and kept on hand at the manufactory) the expense and delay is comparatively trifling—we think every member of our craft has cause to feel pleased at the advent of the "Chicago Taylor Printing Press."

Ice Cream.

A subscriber says, "I have been watching the columns of the RURAL for some time back for a receipt for making ice cream, but not noticed any as yet; will you please insert the best you kuow of in the next number of the PRESS, and oblige."

Poor ice cream is not worth having. To a gallon of cream allow two pounds of loaf sugar. The flavoring must be quite strong, as the freezing destroys it in part. If you have not flavoring extracts, and wish to give a stawberry or raspberry flavor, add a part of the sugar to the berries, mash them and strain the juice. A quart of berries will flavor a gallon of cream.

If you have not cream, to a gallon of milk allow ten eggs; boil half the milk; beat up the eggs; turn the boiling milk into them, stirring them all the time; strain it and then add the eold milk, the sugar, and the flavoring. Freeze in the ordinary way with salt and pulverized ice.

Osage Orange Seed.

In the following we give the California experience in the matter of growing the Osage orange for hedges. We copy from E. E. Moore's seed catalogue for 1873.

"Prepare the ground thoroughly by plowing or spading and pulverize it finely with harrow or rake. To sprout the seed, put it in a vessel and cover with warm, not hot, water. Keep the vessel in a warm place, and change the water once a day. Let the seed soak from five to ten days, after which pour off the water and eover the vessel with a damp cloth. Keep in a warm room and stir the seed occasionally; in about one week more they will begiu to sprout and are ready for planting.

There are over five thousand seeds in a pound, and it is safe to calculate that a pound will produce three thousand plants, if it is properly managed. The seed should be planted, in this State, in March or April, according to the season, and in drills eighteen or twenty inches apart, with twelve good seeds to the foot in the drill.

If the season should prove very dry, and the seed are not on very moist soil, they will want some irrigation; but if on sandy and moist soil they will probably not need it. If the weeds grow freely it may become necessary to hand-weed the rows before the plants will show themselves, as they are very delicate and tender until they get three or four inches high, and require careful culture and a clear entrance into light. When once fairly out of the ground they will become hard and strong in a few days.

The rows will now require to be cleaned once or twice a month with a cultivator and hoe, until the weeds cease to grow. The plants in good soil will make an average growth of from three to four feet the first season. The next spring, or when one year old, they should be transplanted in the hedge rows, and cultivated throughout the following year."

Transportation of Eggs.

We deem the following of so much importance at this season of the year, that we throw it in among our editorials:

EDITORS PRESS:—As there appears to be a growing interest amougst the people in regard to poultry, and many persons being desirous of obtaining eggs, but being doubtful whether eggs will hatch after being sent a distance by rail or stage, I thought I would give my experience through your valuable paper for the benefit of those interested.

In January I purchased one dozen white Leghorn eggs, from Mr. Geo. B. Bayley, P. O. box 659, San Francisco, for which I paid him $10. They were by mistake directed wrong, and went to Yountville, Napa Co., and were forwarded from there by stage to Sebastopol, Sonoma Co.

The eggs were put under a hen the 1st of February, and on the 21st there were 11 chicks hatched from the 12 eggs.

Mr. Bayley's manner of packing eggs for hatching is such that it is almost impossible for them to be injured by transportation.

W. J. HUNT.

Sebastopol, Sonoma Co., Cal., March 17, 1873.

CORRECTION.—Our types placed us in error last week iu saying, in the letter of our correspondent, that Mr. Lefrano—8 miles south of San Jose—is a large importer of foreign wines. It should have been, large importer of foreign vines. We are glad to make the correction.

EXPLANATIONS.—The pile of sheets to he printed will be seen on top of the press. They are fed down singly so as to he caught hy the row of nippers shown across the upper and front portion of the large drum cylinder, the revolution of which carries the papers down to the flat type forms which latter pass horizontally back and forth on the bed of the press. The cylinder is adjusted so as to press the sheets sufficiently hard against the face of the types to take the impression of every letter. The forms are carried at each revolution so as to pass under the first set of inking rollers, seen just at the right of the drum cylinder. The ink is taken from the fountain at the extreme right of the engraving, and distributed evenly by the system of rollers arranged diagonally to each other, by the passage back and forth of a distributing plate. The sheets are delivered on the table at the left by the tapes and the fingers of the "fly," represented between the cylinder and the delivery table; 1,000 to 1,500 sheets per hour are printed on our press



Hints to Mothers and Daughters.

[Written for the PRESS.]

Mother, when your daughter comes home from school, instead of letting her loll on the sofa, with a flashy novel in her hand, have her come into the kitchen, and help you get supper. Depend upon it, she will have a much better appetite, after the exercise of helping to prepare it. Never mind if she does pout, and act sulky, make her come nevertheless. Many mothers foolishly bring their daughters up to play fine lady, to sit in the parlor with folded hands, and receive company, while they have all the toil, and rarely get thanked for it.

Perhaps you think, because you have plenty of this world's goods, that there is no use for your daughter to learn house work, and you expect—and bring her up in the belief—that she will marry a rich man. Well, we will suppose she does, but sometimes "riches take unto themselves wings, and fly away," and then your daughter will come down from the handsome mansion, with hosts of servants to wait on her, to a small house, plainly furnished, and have to be her own cook, chamber-maid, and possibly nursery-maid also. And how do you suppose she will be able to do it, if you do not teach her, while she is young?

A man can not live on beauty or accomplishments, he must have something more substantial; and if he comes home tired and hungry, and expecting a warm well-cooked dinner, and finds instead, heavy bread, muddy coffee, tough and poorly-cooked beef-steak, what wonder, that he will say, it would have been more to her credit, to have learned how to cook, and to keep house, instead of drumming on the piano, and reading novels. The best man living, would have his temper soured, by coming home day after day, and not finding a decent meal.

Girls, if you want a good figure, rosy cheeks and sparkling eyes, the best way to get them is to wield the broom and duster, and in time, you will look like a different girl. See the difference between a girl who has to do house work every day, and one who lounges in the sofa, and never has any more exercise than promenading the streets. One is glowing with health and beauty, and the other slender and pale, or perhaps glowing with paint and powder, and declares herself to be in such delicate health that her mother will not even let her dust her own room. But go to a party, and there you will find the girl in delicate health, all animation and life; she will dance all night and sleep all the next day, to make up for the night's dissipation, while her mother will be up with the first ray of light, and toiling all the day and often far into the night, while her delicate daughter is taking her beauty sleep. Mothers, you are killing yourselves by doing the work that your daughters ought to do; and girls, you ought to help bear the burden on your young shoulders, for your mother's days may not be long, and then, when it is too late, when she who has borne with you all your ill-temper and selfishness, and always treated you kindly, has gone to "that bourne from whence no traveler returns," you will wish, with scalding tears, that you had made her burden lighter by helping her in her toil, and in saving her from taking so many steps in waiting upon you, and every petulant word you have ever uttered will rankle deep in your heart. E. E. A.

San José, March 9th, 1873.

THE DRY ROT IN MEN.—A very curious disease, the dry rot in men, and difficult to detect the beginning of it. The first strong external revelation of the dry rot in men is a tendency to lurk and lounge; to be at street corners without intelligible reason; to be going anywhere when met; to be about many places rather than at any; to do nothing tangible, but to have an intention of performing a variety of intangible duties to-morrow or the day after. When this manifestation of the disease is observed, the observer will usually connect it with a vague impression once formed or received that the patient was living a little to hard. he will scarcely have had leisure to turn it over in his mind, and form the terrible suspicion of "dry rot," when he will notice a change for the worse in the patient's appearance—a certain slovenliness and deterioration, which is not poverty, nor dirt, nor intoxication, nor ill-health, but simply dry rot. To this succeeds a smell as of strong waters, in the morning; to that, a looseness respecting money; to that, a stronger smell as of strong water at all times; to that, a looseness respecting everything; to that, a trembling of the limbs, somnolency, misery and crumbling to pieces.

As it is in wood, so it is in men. Dry rot advances at a compound usury quite incalculable. A plank is found infected with it, and the whole structure is doomed. Thus it had been with the unhappy Horace Kinch, lately buried by a small subscription. Those who knew him had not nigh done saying, "So well off, so comfortably established, with such hope before him—and yet, it is seared, with a slight touch of dry rot!" When lo! the man was all dry rot and dust.—*Dickens.*

They Won't Trouble You Long.

Children grow up; nothing on earth grows so fast as children. It was only yesterday, and that lad was playing with tops, a buoyant boy. He is a man and gone, now. There is no more childhood for us. Life has claimed him. When a beginning is made, it is like a raveling stocking; stitch by stitch gives way until all are gone. The house has not a child in it; there is no more noise in the hall; boys rushing in pell-mell; it is very orderly now. There are no more skates or sleds, bats or ball, or strings, left scattered about. Things are neat enough now. There is no delay for sleepy folks; there is no longer any task before you lie down, of looking after anybody, and tucking up the bed-clothes. There are no disputes to settle, nobody to be getting off to school, no complaints, importunities for impossible things, no rips to sew, no fingers to tie up, no faces to wash, or collars to be arranged. There was never such peace in the house! It would sound like music to have some feet clatter down the front stairs. Oh, for some children's noise! What used to ail us, that we were hushing their loud laughs, checking their noisy frolic, and reproving the slamming and banging of doors?

We wish our neighbors would lend us an urchin or two to make a little noise in these premises. A home without children! it is like a lantern and no candle; a garden and no flowers; a vine and no grapes; brook and no water gurgling in its channel. We want to be tired, to be vexed, to be run over, to hear children at work, with all its varieties. During the secular days there is enough marked. But it is the Sabbath that puts our home to the proof that it is the Christian family. The intervals of public worship are long spaces of peace. The family seems made up on that day. The children are at home. You can lay your hands upon their heads. They seem to recognize the greater and lesser love—to God and to friends.

The home is peaceful, but not still, there is a low but melodious thrill of children in it. But the Sabbath comes too still now. There is a silence that aches in the ear. There is too much room at the tables, too much at the hearth. The bed-rooms are a world too orderly. There is too much leisure, and too little care. Alas! what means these things? Are these signs and tokens? Is life waning?—*Ex.*

Heaven.

DEAR PRESS:—I suppose farmers are allowed to be interested in other things besides "grain rings" and price lists. Bunyan's "man with the muck-rake" is not so agreeable an individual to contemplate that we need be constantly bound to emulate his notable example. I've been reading a little of a harvest home in which all have part; and, although the harvest is not yet gathered, the reaper is familiar to most of us. "His name is Death;" and the book I've been reading is "Gates Ajar." As a farmer I have a quarrel with that book. A hint, a pretty strong one too, is thrown out that our heaven is to consist in a kind of fairy agriculture, "the charge of the dews and rains and hundred unseen influences" at work on potato fields. Thank you, Miss Phelps, delightful! How nice to sprinkle blight on the vines from a sort of heavenly pepper-box, or drive up a flock of bugs from another field some miles distant. Much as I approve the general scope of the book, the removal of our distrust of the future provided for us by the loving thoughtfulness and tender solicitude of our most loving Father in heaven, I can't bring my mind to that potato business. It is about as congenial as the popular idea, embodied in pictures, of a seat on a damp, icy cloud, "baying the moon." What, on Miss Phelps' principal, becomes of such people as lawyers, doctors, etc.? What diseases are the doctors to differ about in that land where pain and sickness never come? What knotty points of the law of love will puzzle the legal mind? In what victories will our great generals find renown in those heavenly fields where all is peace?

Then again, in place of the one family with one father, and the achievement of that universal brotherhood, that all good men would strive for, and which even wicked, frantic mobs howl for, we find in "Gates Ajar" a continuance, select coteries, with, of course, private ends and selfish aims.

The root of all sin in this world is self. No matter what kind of wickedness is committed, all is from the one desire to gratify self. Lie, covet, kill, rob—all is to benefit self—and yet can anyone read "Gates Ajar" and not feel how much there is of self in the heaven therein pictured?

The curse of earth is, "every one for himself." We love ourselves, and one only loves us—self. In heaven each forgets self and loves all else, thus each receives the love of myriads in place of the love of the one miserable self.

I don't think we need fret as to what heaven will be like, in detail. If we believe in a real loving God who is preparing for us a "city which has foundations," we may surely feel that he understands how to ensure our happiness. The trouble is, too few of us realize aught of that love that casts out fear. Instead of making God our friend, we shrink from him as from one who grudges our pleasure and happiness. Think of David, dancing "before the Lord with all his might." We rather pull long faces and look "blue." E. B.

A Stiff Upper Lip.

"Keep a stiff upper lip, old fellow!" is the parting counsel of one friend to another, who is standing in the shadow of some great trouble of that sort which causes all men to turn their eyes on the sufferer to see how he bears it Under these circumstances there is not a man but instinctively knows that if he can only perform that little facial feat successfully, his battle is more than half won. Some men never can do it at all. Some try, only to break down lamentably. With some mouths the keeping of a stiff upper lip is a physiological impossibility. If you want to see the most perfect failure of such an attempt, watch an impulsive, sensitive child whose feelings have been wounded, but whose natural pride instinctively suggests concealment of the trouble. The lips begin to quiver ominously; then the eyes, in turn, show signs of rebellion against the discipline which is sought to be enforced upon a countenance accustomed to be made an index of all that goes on within. Next, a sob forces itself up from the throat, and brings the ready tears with it, and the tears are the signal for an unconditional capitulation. Down goes the treacherous under lip, and up goes the forsaken upper lip, which can not possibly preserve its equilibrium after the defection of its twin brother and nearest ally. The control over the muscles of the mouth which is necessary to the preservation of a stiff upper lip, and which typifies firmness, is only gained after long and repeated struggles. It is an important part in that unconscious self-education which begins so early that no one can ever exactly know when he took his first lesson in it.

And this is why so much stress is laid on the keeping of a stiff upper lip. The simple physiological fact implies so much else of the gravest importance which lies behind it. It means so many things, that we can only name a few of them. It means making up your mind and keeping it made up. It means not wearing your heart on your sleeve "for daws to pick at." And in some cases it means having so utterly conquered impulsive feelings as to forget altogether at last how to give way to it. It means brave bearing up under adversity; and this last of its meanings is the noblest of all. But how is it done—that is, the facial part of the process? The jaws are brought firmly together, the front teeth overlapping each other and the lips pressed together. In this position you have the best possible physical illustration of a stiff upper lip. It always goes with the firmly set jaw, and you really cannot have the one without the other. As long as you keep your mouth in that position, you are good for a stiff upper lip. But with strong emotion wrestling for the mastery and demanding outlet, it is not so easy as you might think to keep the jaw firmly set. The heart, the eyes, the throat, the chest, all cry out against it. Even the chin, the nose, and the eyebrows join in the protest. In a state of excitement they are all enemies to the keeping of a stiff upper lip, and if they can gain over the tongue to their side, they usually win the victory. Some people never keep stiff upper lips, and the physical impossibility is typical of the moral one. Others, again, keep them habitually too stiff. But these are in the minority. More fine faces are spoiled by an undecided look about the mouth and chin, caused by never bringing the jaws firmly together, than rendered grim by keeping them habitually too closely locked.—*Phrenological Journal.*

The Ear of Man.

It is superior to that organ in all races of animals below him, as man alone appreciates harmony and cultivates music. Anatomists, who really understand its mechanism are lost in admiration.

Nature has bestowed so much care in the extremely minute structure of the innermost parts of the apparatus, that it may well be considered the masterpiece in the domain of divine mechanics, to the apprehension of our limited acquaintance with what lies within the compass of ordinary vision.

Long before birth the internal ear, those apartments in which are distributed millions of terminal filaments of the acoustic nerve, are completely finished and securely protected in a very hard bony box. There are three irregular chambers, varying in size, scarcely larger than the head of a pin. In one we hear noises, sudden concussions, etc., in which there is no particular law of vibration in force. In the next we analize sounds both of voice and musical tones. Within the third they are erect, flexible rods, like elastic bristles, fixed at one end—the other being unattached and movable to and fro—heading as the heads of wheat stalks in the field to the gentle force of air. These rods are innumerable—thousands upon thousands—there being one for every varying impulse of a musical instrument or change in voice. But a sense of hearing is in the brain, the ear being nothing more than a contrivance for conducting aerial vibrations to the acoustic nerve, which transmits the impression to the soul.

YOUNG FOLKS' COLUMN.

A Father's Lesson to His Son.

One day Robert's father saw him playing with some boys who were rude and unmannerly. He had observed for some time a change for the worse in his son, and now he knew the cause. He was very sorry, but he said nothing to Robert at the time.

In the evening he brought from the garden six rosy-cheeked apples, put them on a plate and presented them to Robert. He was much pleased at his father's kindness, and thanked him. "You must lay them aside for a few days, that they may become mellow," said the father, and Robert cheerfully placed the plate with the apples in his mother's store-room.

Just as he was putting them aside, his father laid in his plate the seventh apple which was quite rotten, and desired him to allow it to remain there.

"But, father," said Robert, "the rotten apple will spoil all the others."

"Do you think so? Why should not the fresh apples rather make the rotten one fresh?" said the father. And with these words he shut the door of his room.

Eight days afterward he asked his son to open the door and take out the apples. But what a sight presented itself! The six apples which had been so sound and rosy-cheeked were now quite rotten, and spread a bad smell through the room.

"Father!" cried he, "did I not tell you that the rotten apples would spoil the good ones?" You did not listen to me. "My boy," said the father, "have I not told you often that the company of bad children will make *you* bad, yet you don't listen to me. See in the state of the apples that which will happen to you if you keep company with wicked boys?"

Robert did not forget the lesson. When any bad boys asked him to play with them he thought of the rotten apples, and kept himself apart from them.

A LITTLE BOY VS. TOBACCO.—I know a little boy of great energy, and as full of fun as an egg is of meat, who, brave as a lion when his physical courage is taxed, sometimes fails when he is hantered to do wrong. His name is Jimmy; he has been taught never to use tobacco, but the other day some larger boys tried to bribe him to smoke by offers of candy, nuts, etc., but he resisted till one ventured to call him a coward, and said: "I know what is the matter; Jimmy is afraid to smoke." Full of impulse and not wishing to be considered a coward he smoked two pipes of tobacco. You never saw a sicker fellow in your life. He tried to keep it concealed from his mother, but she detected the difficulty, and it was not a little funny to hear him say as he cried with his sickness, "I wouldn't smoke again for all the candy in town." "Be sure your sin will find you out." Boys and girls, nothing is more sure than this. Sometimes it finds you early, sometimes late, but it will find you out. Wrong doing leaves its traces on the soul, which finds expression in the eyes, features and manners, just as sure as anything in the world. True courage is never to do wrong, but always to do right.

A Little Girl's Reproof.

An army officer, on returning home from camp life, went to visit a relation, and like some who imitate their associates, he indulged in profane language. A little girl walked out with him to his horse, and as he was talking to her in great glee, she gently said:

"I don't like to hear my cousin swear."

He replied: "I know my dear it is wrong."

In the same mild tone she rejoined: "Well then, if you know it is wrong, why do you do it?"

The captain confessed to a friend, on relating the story that he never felt a reproof so much as the one giving by that little child. He had good reason to feel it, for he deserved it.

The old verses says:

Maintain your rank, vulgarity despise; to swear is neither brave, polite nor wise.

SAVE YOUR DIMES.—We say to all the children, save your dimes. Don't eat them in candy or something of the sort. Better save them until enough is gained to buy a good book, then read the book carefully, and you benefit your mind, which is equivalent to putting the dimes into your mind, where they will always stay. A dollar's worth of knowledge well stored up is something that will never leave one and will always be of service. Again, save your dimes till you have enough to invest in some piece of property, a pig, a sheep, a calf, a fruit tree, or something of the kind. Such property could easily be made to increase in value, so that in a few years, a snug little property would be acquired. So save your dimes and use them well.

"Now, boys, suppose twelve men divide twenty-four bushels of wheat equally, how many is that for each?" Boldest boy.—"Please, sir, we've not gone that far." "Your teacher told me you had learned all the first four rules!" Boy.—"Yes but we have always done our sums in potatoes or turnips—we have never had any wheat."

Agricultural Articles.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a fast or slow speed may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA
Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes, Hoadley's Engines, Pitts Horse Powers, Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Ruseell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,

And a fresh stock of

HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

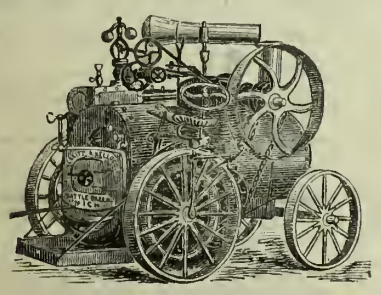
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And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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The Latest and Best in the Country.

HAS A DOUBLE MOTION.

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

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G. W. SWAN. OLIVER HINCKLEY.

UNION BOX FACTORY,

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GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS.	FOR FARMERS.	FOR FRUIT CANNERS.
Sugar Boxes,		Plum Boxes,
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Citron Boxes,		Grape Boxes,
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Kerosene Cans,		Butter Chests,
Butter Caddies,		Strawberry Chests,
Lard Caddies,		Gift Packages,
Butter Chests,		Bullion Boxes,
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All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

A New Discovery Makes Wood Impervious to any Liquid.

Another Cuts Wood as Thin as any Pasteboard and Smooth as Paper.

Another Makes a Strong Corner Without a Nail.

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AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
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Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

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BELTING & LACING ROPES & CHORDS.

Made by H. ROYER 137 Brannan St. S. F.

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WARNER & SILSBY

Manufacture all sizes of

Bed and Sofa Springs,

Which they offer to the trade at reduced prices; also the celebrated **Obermann Self-Fastening Bed Spring.**



Any man can make his own Spring Bed with them by attaching them to the slats of any bedstead.

No. 147 New Montgomery Street, corner of Natoma, San Francisco. 12v5-3m

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227 and 229 Second street, ...SAN FRANCISCO.

This Hotel has been newly furnished, and is situated in a central and healthy location, and is one of the few Hotels in San Francisco conducted on Temperance Principles.

BOARD, PER WEEK, $3.50. BOARD AND LODGING, $4 TO $5. SIX MEAL TICKETS FOR $1.

CHAS. MONTGOMERY, Proprietor.

☞ Passengers and Baggage taken to the Hotel free. ☜

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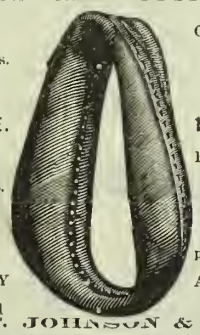
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Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

SEND this paper to your friends abroad.

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Examine our	COPPER RIVETED
HORSE COLLARS.	Pat. Nov., 1861.
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BEST IN USE.	18,000 SOLD.
ALL GRADES.	HEAVY & LIGHT
No complaints.	No ripping.
No repairing.	Examine for yourselves.
Don't believe	prejud'd parties.
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HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

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Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1y

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6,000,000 Pairs of SILVER TIPS

Sold in the year 1871, by which

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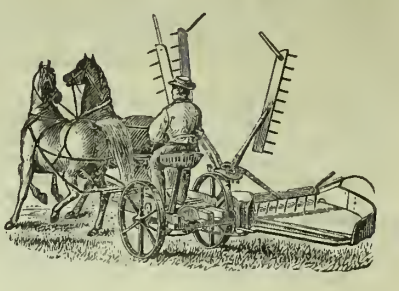
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$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

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BUCKEYE MOWER,
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BUCKEYE SELF-RAKE REAPERS,
HAINES' GENUINE HEADER,

VIBRATOR SEPARATOR

(Manufactured by Nichols, Shepard & Co.),

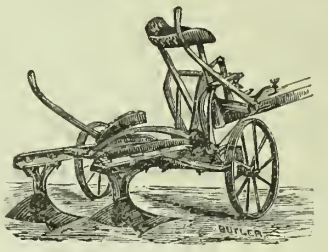
MOUNTED HORSE-POWERS,
TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

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Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
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MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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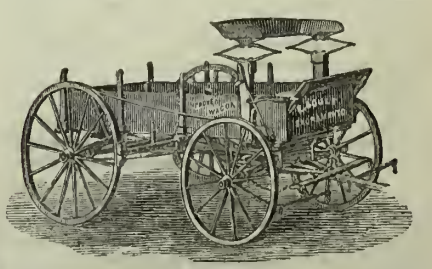
The "Victor" Lawn Mower.

Simple, Durable and Practical.



Will cut wet grass as well as dry. It is impossible for it to clog, as its gears are perfectly covered after the most improved American method. Draught light; runs entirely on wheels; very simple in its adjustment. It is a Self-Sharpener; all parts of the machine made to interchange. The gears are all enclosed, and it is quickly thrown in or out of gear. THE VICTOR is the only perfect Lawn Mower in the country; it is also a perfect Garden Roller. **Price, $25.** Sold only by

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best Improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE

ap22-3m San Quentin, Cal.

[Continued from page 181.]

breed Brahma pullet, weighing seven pounds.

SAN DIEGO.

Union, March 6: GRAIN CROPS.—There is promise of an abundant harvest being reaped in this county the coming season. From all quarters of the county the most flattering repots are received.

In the Pawii Valley the grain crops are reported as in excellent condition. The abundant rainfall has greatly encouraged the farmers in that section, and a much larger quantity of grain has been sown this year than last.

The same reports come from the San Pasqual Valley. Nearly a third more grain than was sown last year has already been put in the ground, and plowing and seeding is still going on. The grain that has already sprouted looks exceedingly well.

The outlook throughout that section of the county known as Bear Valley, is cheering. The growing crops are progressing finely.

Mr. Ward, of the Cajon, says the harvest prospects never looked better in that splendid valley than they do this year. An unusually large quantity of grain has been sown, and the plows are still kept busy at work turning the sod in various parts of the valley. The young shoots are growing vigorously, and bear all the signs of health. The agriculturists in that section of the county are jubilant indeed, and are more confident than they ever have been that this will be with them a prosperous year.

NEVADA.

Enterprise, March 12: OXEN BEGINNING TO ARRIVE.—About 11 o'clock last night four yoke of oxen came "lumbering" along C street past this office. They came in from the north, probably from Truckee Meadows. They were huge, fat, contented looking fellows, and as they sauntered along chewing their cuds and glancing carelessly from side to side of the deserted street, seemed to say, "Bring along your epizootic, who's afraid!" So welcome was the sight of these lusty and docile beasts entering our plague-stricken town, that half a dozen persons, one upon the heels of the other, rushed up the two flight of stairs leading to our den to shout in breathless glee, "The oxen are beginning to come in! Four yokes are just passing your door. Great fat fellows, they are!" Had a train of elephants marched into the town the excitement would probably not have been more intense. As we gazed upon the honest old bicornous brutes we were constrained to exclaim, "Hereafter let no man despise or abuse the ox!"

OREGON.

Oregonian, March 8: WHEAT is quoted at 75 cents a bushel in Salem.

THE 15th of March is the day appointed to hold precinct meetings to elect delegates to the County Convention, which will meet on the 28th to elect delegates to the State Farmers' Convention, to be held April 10th.

THE people of the Pringle neighborhood, south of Salem, recently organized a wolf club, which numbers about twenty members. L. M. Herron is President, and T. L. Davidson, Secretary.

FROM the *Courier:* Owing to a general misconception of the purport of the call for a meeting at this place to form a County Farmers' League, on Saturday last, the attendance was rather slim. The meeting adjourned to meet again on March 28, at which time delegates will be appointed to attend the State Convention to be held in Salem on April 10.

THE Albany *Register* says: "At the last meeting of the Oak Creek Farmers' Club it was resolved to build a warehouse at Astoria, and to that end a resolution passed requesting the different clubs throughout the county to send each one member, the whole number thus selected to meet in this city and draw up articles of incorporation forming a company for such purpose, fixing the amount of stock, amount of each share, etc.

WASHINGTON.

Walla Walla *Union*, March 1. FROM YAKIMA VALLEY.—Mr. Chas. Schanno, of the firm of Schanno Bros., of Yakima City, W. T., informs the Dalles *Mountaineer* that everything in that section of Washington Territory is progressing finely. The winter has been quite mild, and stock of all kinds has passed through it excellently. There are now about 20,000 head of cattle in Yakima county. Hay is selling at from $2.50 to $7.00 per ton. Butter brings 50 cents per pound, and cheese there is none made. Wheat $1 per bushel, oats, 75 cents, and flour from $6 to $8 per barrel. Mr. Schanno undertook to come over the Yakima mountain, but finding the snow from four to eight feet deep he retraced his steps and came through the cañon, on the divide of which the snow was about eight inches deep.

KITTITASS VALLEY.—There has been considerable snow here this winter, though the weather, in the main, has not been so cold as last winter. The coldest weather we have had was about the middle of November, when there was very little snow on the ground. The most snow on the ground at one time was about 20 inches. The aggregate fall was about 30 inches. There is no snow at this time on the foothills, except in the ravines where it drifted

There is very little feeding of stock at this time. There was about three weeks that stock required feed; in many instances, however, owners did not feed at all. All the stock I have seen looks well, and the season is so far advanced now that no difficulty is apprehended during the remainder of the winter. Much of the feed prepared for this winter will remain over for next.

EASTERN AGENT.—Albert H. Lewis, formerly of Atchison, Kansas, who has spent the past season in California, is now on the way to New York and other Eastern cities to represent the business of this office. Manufacturers and tradesmen who have the pleasure of an interview with him, can learn something of interest about California, and make favorable contracts for patronage of the several journals connected with this office.

GROCERIES AND PROVISIONS.—Wines and Liquors are shipped to country orders with dispatch, carefully marked and packed, free of extra charge, by B. SHARBORO & BRO., 531 Washington street, S. F. This long established firm now import their goods from the four parts of the world, and consequently undersell all other grocers in San Francisco. All orders from the State and coast are promptly attended to. Address B. SHARBORO & BRO., Lock Box 1126, San Francisco. dI4-3m

WM. SHEW'S PHOTOGRAPH GALLERY, the oldest in the State, and for a long time located on Montgomery street, is now on Kearny, at No. 115, and has no connection with any other. All kinds of Photographs taken in the very best style for about one-half the prices charged on Montgomery street. *

ALTOGETHER THE BEST.—It is curious, but true, that J. A. SHABER, 707 Market street, near Third, should sell Furniture and Bedding cheaper than any other dealer in this city. Try him and you will be convinced. 3v5-3m

A PROTRUDING toe is not a sightly thing, say nothing about health and comfort. SILVER TIPPED Shoes never wear out at the toe.
For sale by all dealers.

EVERY MECHANIC should read and familiarize himself with "Brown's 507 Mechanical Movements," illustrated, published and sold by Dewey & Co., Mining and Scientific Press office, S. F. Bound in cloth. Price, (very low) post paid, $1, coin, or its equivalent in currency. Inventors, Engineers, Students, and Apprentices will find it exceedingly useful and especially handy for reference.

Laws Concerning Corporations.

[Under the New Code—January 1, 1873.]

GENERAL PROVISIONS APPLICABLE TO ALL CORPORATIONS.
WAGON ROAD CORPORATIONS.
WATER AND CANAL CORPORATIONS.
HOMESTEAD CORPORATIONS.
MINING CORPORATIONS.
LAND AND BUILDING CORPORATIONS.
ALSO, MINING PARTNERSHIP LAW.

A pamphlet containing the above provisions concerning Corporations has been printed from the Statutes of California. It furnishes those who wish these special laws an opportunity of obtaining them for the small sum of 25 cents (post paid). Address, DEWEY & CO., Publishers, and Patent Agents, S. F.

DEWEY & CO.,

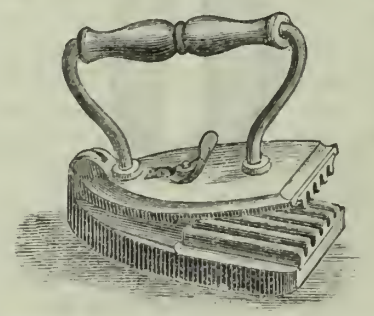
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Patent Agents.

No. 338 Montgomery St.,
SAN FRANCISCO.

Established in 1860. Inventors can rely upon the surety and dispatch of all important and confidential business intrusted in our hands. Long familiarity with Mining, Farming, and all other classes of inventions on this coast, enables us to give the most intelligent advice to PACIFIC COAST INVENTORS of any Agency in the Union, and oftentimes save unnecessary delay and expense. Every branch of the patent soliciting business attended to. All WORTHY INVENTIONS patented by us will be liberally noticed, free, at the most desirable time for the patentee, in both the MINING AND SCIENTIFIC PRESS and the PACIFIC RURAL PRESS.

Polishing and Fluting Iron.



This new invention takes the place of two articles needed in nearly every house. As a POLISHING IRON it has no superior. The part used for Fluting is made of brass, and highly polished. The Polishing Iron and Fluter, being in one, are both heated at the same time.

We are now prepared to furnish them in quantities to suit.

WIESTER & CO.,
17 New Montgomery street, San Francisco,
General Agents for Pacific Coast.

EXTRAORDINARY NOVELTY!!

NEW JAPAN PRIMROSE!

The Greatest Acquisition of the Day.

Perfectly hardy in England. So pleased were we with a few plants which flowered with us last season, that we at once engaged a large stock from Europe—and we are enabled to offer them at $1 each, by Mail, postpaid. ORDERS RECEIVED NOW, to be filled in rotation after April 1st.

Prices to the Trade on application. Send for Catalogues.

Address,
Establ'd 1840. ELLWANGER & BARRY,
Mount Hopa Nurseries, ROCHESTER, N. Y.
12v5-2m

EGGS FOR HATCHING

FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.

Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to THOS. E. FINLEY, Manager,
California Stock and Poultry Association.
OFFICE—No. 113 Leidesdorff street, S. F. 5v5



12v5-f

EPIZOOTIC, YIELD!

Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H. H. H Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

WILLIAMS & MOORE, Proprietors,
Stockton, Cal.

For sale everywhere. 12v5-3m



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

CALIFORNIA THOROUGHBRED

Cattle Breeders' Association.

A meeting of the above named Association will be held in the Hall of the Young Men's Christian Association Building, at San Francisco, on

Tuesday, April 1st, at 3 P. M.

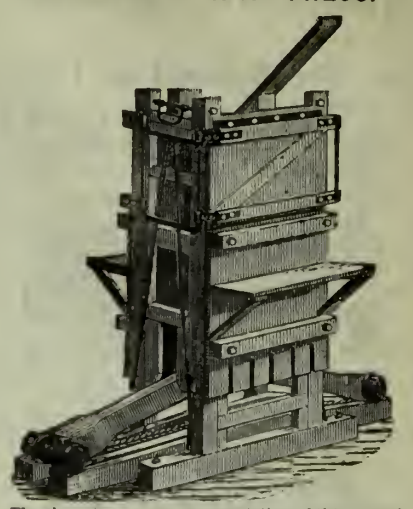
All persons, breeders of Thoroughbred Cattle in this State, are cordially invited to attend, or to send in their names for membership to either of the undersigned.

G. N. SWEZY, Secretary,
Marysville, Yuba County.
WILFRED PAGE, Treasurer,
P. O. Box 1296, San Francisco.
ma22-2t

THE NEW U. S. MINING LAWS.

The new Laws of 1872, governing the location and purchase of Placer and Quartz Mines and Agricultural Lands in Mining Districts of the U. S., printed in circular sheet, for sale at this office. Single copies, 25 cts. Usual discount to the trade.

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable EAGLE HAY PRESS, the invention of J. A. McGilliviral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of beating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 550 pounds. Reference, Maj. Rob't Beck.

We have added to this Press this season an improvement (patented) which does the stamping, dispensing with men to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

Who are the Proprietors on the Pacific Coast, and will endeavor to have a supply constantly on hand. I2v5-3m

"Cheerful Voices" for Schools.
"Gems of Strauss!" All buy it.

There is no mistake about the remarkable character of this CLARKE'S MODEL INSTRUCTION BOOK. From the first it has taken the lead, selling largely, and eliciting high commendations from those well qualified to judge. Musical Writers say:—"Likely to become as popular as Richardson's." "The very book!" "Among notices, every article has justly placed it far above any similar book." "Attracts and allures the pupil." "Overflowing with pure melodies."

NEW METHOD FOR REED ORGANS.

Price $2.50. For sale everywhere.

"Sparkling Rubies," for Sabbath Schools.
"Musical Treasure!" All Try it.

OLIVER DITSON & CO., Boston.
CHAS. H. DITSON & CO., 711 Broadway, N. Y.

PURE BLOOD & GRADED ANGORA GOATS

16 Pure Blood Bucks and Ewes.

250 Grades—all Ewes.

They are ¾, ⅞ and ⅞ Grades.

100 Kids, of both Sexes, Graded.

I will sell the above at low prices. Address, soon,

JOHN DONALD, San Mateo, Cal.
12v5-tf

PILSBURY, WEBB & CO.,

(LATE MARSH, PILSBURY & CO.,)

HARDWARE.

—ALSO—

Agents for the best CHOPPING AX, POST AUGER, AND WRINGING MACHINE ever made. For sale cheap. Call and see.

CORNER Front and Pine streets, San Francisco.
12v5-tf

S, F. and Liverpool Average Price Wheat.

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡— Average monthly decrease.

¶—The difference here noted is that between the average price of average shipping wheat in S. F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873 DATE.	SAN FRANCISCO. COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	LIVERPOOL BY TEL. CALIFORNIA AVERAGE.	CALIFORNIA CLUB.	DIFF.¶
Feb. 18	1 60 @1 75	....	1 85 @1 90	...	1 85 @1 90	....	2 93 @2 95	3 09 @3 23	1 06½
19	1 60 @1 75	....	1 85 @1 90	....	1 85 @1 90	....	2 93 @2 95	3 01 @3 17	1 06½
20	1 60 @1 75	....	1 80 @1 90	†2½	1 85 @1 90	....	2 93 @2 97	3 01 @3 17	1 10
21	1 60 @1 75	....	1 80 @1 87½	†1¼	1 85 @1 90	....	2 89 @- -	3 03 @3 15	1 05¼
22	1 60 @1 75	....	1 80 @1 87½	.	1 85 @1 90	....	2 89 @2 91	3 03 @3 15	1 06¼
24	1 60 @1 80	*2½	1 80 @1 85	†1¼	1 85 @1 90	....	2 89 @2 91	3 03 @3 15	1 07½
25	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87	3 03 @3 15	1 04½
26	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87	3 03 @3 15	1 04½
27	1 60 @1 75	†2½	1 70 @1 80	†1½	1 80 @- -	†1½	2 83 @2 85	3 03 @3 15	1 09
28	1 60 @1 75	....	1 70 @1 80	....	1 80 @- -	..	2 81 @2 87	3 03 @3 15	1 09
Mar. 1	1 60 @1 75	....	1 70 @1 80	....	1 80 @- -	..	2 81 @2 87	3 03 @3 15	1 09
3	1 60 @1 75	....	1 70 @1 80	....	1 80 @- -	..	2 81 @2 87	3 03 @3 15	1 09
4	1 60 @1 75	....	1 70 @1 80	....	1 80 @- -	..	2 81 @2 87	3 03 @3 15	1 09
5	1 60 @1 75	....	1 70 @1 80	....	1 81 @- -	..	2 82 @2 89	3 03 @3 15	1 11½
6	1 60 @1 75	....	1 70 @1 80	....	1 80 @- -	..	2 84 @2 91	2 95 @3 03	1 12
7	1 60 @1 75	....	1 70 @1 80	*5	1 80 @- -	*10	2 85 @2 91	.....	1 13
8	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 85 @2 91	.....	1 08
10	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 85 @2 91	.....	1 08
11	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 85 @2 91	.....	1 08
12	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 85 @2 91	.....	1 08
13	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 85 @2 91	.....	1 08
14	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 89 @2 91	.....	1 10
15	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 89 @2 91	.....	1 10
16	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 81 @2 87	.....	1 04
17	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 81 @2 87	.....	1 04
18	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 81 @2 87	.....	1 04
19	1 60 @1 75	....	1 75 @1 85	....	1 90 @- -	..	2 81 @2 87	.....	1 04
Extreme advance.	....	.....	.....	.....	.....	2½	.....	.....	.....
Extreme decline.	....	.....	.....	7½	.....	....	.....	.....	.....

Comparative Prices of Wheat.

1873 Jan.	S. F. SHIP.	LIVERPOOL. TELEGRAPH*	LIVERPOOL. MAIL.†	DIFF. BET. S. F. and Teleg'h.	DIFF. BET. Mail and Teleg
7	2 11½	3 12@3 19	3 11@3 33	1 10¾	8
10	2 08¾	3 10@3 14	3 07@3 29	1 09¼	6
14	2 02½	2 97@3 01	3 10@3 16	96⅜	14
17	2 05	3 03@3 05	3 12@3 18	1 10	11
21	2 02½	3 06@3 08	3 07@3 27	1 14½	10
24	2 02½	3 04@3 06	3 05@3 25	1 12½	10
28	1 95	...	3 03@3 25	...	...
31	1 92½	2 98@3 01	3 01@3 23	1 07½	12½
Feb. 4	1 92½	2 98@3 01	3 03@3 28	1 07	11
7	1 91¾	2 96@2 99	2 99@3 20	1 06¼	12
11	1 91¾	2 92@2 97	3 04@3 29	1 03¾	22
18	1 89½	2 93@2 95	3 06@3 31	1 06½	24½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of said Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, March 19th, 1873.

The Produce market has been generally firm, an improved feeling showing itself the whole week. Barley has suddenly become of an importance which it has not been for a long time past, and large quautities are now being sold for brewing purposes in Australia. Australia, on account of its extremely warm climate, produces but little superior Barley, it is not, therefore, improbable that this trade will become of great importance. This is not the only direction in which our trade in Domestic Produce is improving. Forty thousand pounds of fresh Roll Butter has, within the past fortnight, been shipped East, by Messrs. Wooster & Shattuck, and about twenty thousand pounds more is about being shipped. The produce dealers of the East, particularly those in Meats, are beginning to export largely to England, 18,000,000 lbs. of Meats having been so shipped during the week ending March 11th, according to a recent letter from Cincinnati. This will give scope for profit to this direction to our farmers and pork-packers. We have been informed this week that a most reprehensible practice has been indulged in by a leading hide-purchasing house in this city—to wit: giving quotations to the daily papers which are much lower than the market prices, with the view, it is said, of being able to buy more cheaply from the farmers than San Francisco prices justified. We hope our friends will take warning. We can mention that our authority is one of the most respectable houses in that business in the city.

Receipts.—On nearly all hands the receipts of Domestic Produce last week have been much behind those of the previous, in the matter of Wheat particularly. Flour receipts have increased about fifty per cent. Wheat receipts at City Front have been only about one-third of those of last week, those of Barley have been doubled, being equal to one-third of those of Wheat, those of Oats have improved; we have again to chronicle receipts of Bran, those of Middlings have increased four-fifths, those of Potatoes have increased one-half, those of Hides have decreased one-fifth, there has been a slight increase in those of Wool, those of Hay have decreased, as also have those of Wine and Brandy, while those of Beans and Onions have increased

We summarise receipts of Bay Produce to date, as Flour 11,484 quarter sacks, Wheat 72,834 centals, Barley 22,206 do, Oats 250 do, Rye 44 do, Mustard Seed 355 do, Bran 1,660 do, Middlings 260 do, Potatoes 3,751 do, Wool 104 bales, Hay 721 tons, Straw 79 do, Wine 18,245 gallons, Brandy 580 gallons, Beans 535 centals, Onions 313 do, Cotton 20 bales, Hops 12 do, Corn 173 centals, Flax Seed 20 do, and 85 barrels of Beet Sugar, Hides, 1,059.

Receipts of Wheat at Oakland Wharf have aggregated 19,600 centals, or 98 car loads.

Receipts of all kinds of Domestic Produce from Coast ports have increased largely this week. We summarise receipts to date as 2,235 centals of Wheat, 5,604 do of barley, 200 do of Oats, 1,696 do of Corn 1,381 do of Beans, 9,599 do of Potatoes, and 14 Hides.

Oregon has sent us by the "Ajax" 1,251 boxes of Apples, 1,960 half and 2,120 quarter sacks of Flour, 260 Hides, and 32 kegs of Salmon.

Barley.—Barley has been very firm last week, notwithstanding that 27,810 centals came forward from the interior and from Coast ports. This is caused by the Australla demand, there now beiug three vessels loading for that destination. We note sales of 1,000 sacks of Coast at $1.20, 1,300 of light Bay at $1.22½, 1,000 of Coast at $1.23, 350 of light Bay and Coast at $1.25, 3,690 do Bay Feed at $1.27½, 3.350 do light Bay aud Coast at $1.32½, 1,520 do Bay Brew at $1.35, 400 do light Bay at $1.40, 500 do Chevalier at $1.50 and 1,800 do Coast Brew private.

Flour.—Flour has remained at the samo figures as last week. Over 10,000 barrels have been sold for export. The "Cairnsmore" and the "Mariana" will take 20,000 barrels to China. Exports have beeu small, aggregating 251 barrels, 50 half sacks and 6,960 quarter sacks to Petropauloukl, Burrard Inlet and Tahiti.

Hay.—Receipts have been somewhat less than those of last week. We note sales of a cargo of Wheat at $16, one of Wheat and Wild Oat at $21.50, 30 tons of common at $15, 50 do fair at $17 and a cargo of do at $15.50.

Hops.—The tone of the market has not improved any, and we can only say that prices remain unchanged.

Oats.—Oats have been weak with but light receipts. We note sales of 650 sacks of Oregon at $2.17½ and 1,400 do at $2.20.

Potatoes.—Duriug the week 13,350 centals, fifty per cent. more than the previous week, have been received. Notwithstanding the tone of the market is improved. We note sales of 900 sacks of Humboldt at $1.10 to $1.20, 300 do of Petaluma and Tomales at $1 to $1.10, 500 do Russian River at $1.25, 250 do Sherman Island at 85 cents, and 200 Common at 75 to 85 cents.

Wheat.—Notwithstanding the decline in the Liverpool market, Wheat here on account of the small quantities coming forward, has been enabled to hold its own, and the chances are all in favor of improved prices. Freights are becoming very low—cannot now command over $19.44, and are really worth only about $18.22. The Liverpool market price for California wheat, according to the telegrams received by the Merchants' Exchange, and the Associated Press, has dropped down 4 cents, being now only $2.81 to $2.87 per cental. Receipts for the week have been unprecedentedly small aggregating from all sources only 94,729 centals. We note sales of 450 sacks of fair Coast at $1.72½, 2,400 do of Choice Ooast and Common Shipping at $1.75, 1,000 do of Coast at $1 77½, 5,700 do good at $1.80, and 3,000 Oregon and Bay at $1.85.

Exports have been pretty large, lucluding per "Haze," to Liverpool, 25,141 centals; per "S. G. Reed," to Cork, 19,412 do; per "Michael Scott," to Queenstown, 35,795 do; per "Scotia," to Cork, 38,246 do; per "Highlander," to Liverpool, 40,123 do; per "Adelina," to Queenstown, 25,143 do; per "Tamerlane," to Liverpool, 27,296 do; and per "Castlehead," to Liverpool, 26,733 do, being a total of 237,837 centals, worth $454,913.

Wool.—Wool has been dull this week, and prices are largely nominal. Sales include 29,000 pounds of Fall and Spring.

GENERAL MERCHANDISE.

Imports from foreign countries this week have been few, comprising cargoes, one from Marseilles, one from Victoria, two from Liverpool and two from New York, with the usual assorted cargoes. The export trade has been brisker, including 12 cargoes of the value of $74,655 to Great Britain, Petropauloukski, Tahiti, Burrard Inlet and Callao. To the latter port the ship "Scharnshorst" carried 540,090 lbs. of Rice, 12,044 do of Tea and 1,250 Brooms. There have beeu large imports of Coal, and the jobbing price of Coos Bay and Seattle have declined $1 per ton. Provisions of all kinds are firmer in tone. The tone of the Lumber market is very weak, though strenuous exertions are being made to keep prices up. Their is no reduction from previous rates, solely because no one is offering to buy. The Lumber Exchange has elected a new set of officers: G. B. Knowles, President; Wm. S. Adams and S. L. Mastick, Vice-Presidents; J. J. McKinnon, Treasurer; and George Earl, Secretary. A sale of 262 tons of American White Iron has been made to McCone, of Gold Hill, at $60 per ton.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality, M	30 00
Rustic, ₱ M	35 00	Laths, ₱ M	4 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding, M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, ₱ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half inch Battens, M	22 50	Rustic, ₱ M	42 50
Pickets, rough, ₱ M	14 00	Battens, ₱ lineal foot	1
Pickets, rough, p'ntd	16 00	Shingles ₱ M	3 50
Pickets, fancy, p'ntd	22 50		
Shingles, ₱ M	3 00		

DOMESTIC PRODUCE.

WEDNESDAY M., March 19, 1873.

BEANS.			
Beans, sm'l white	5	@	—
do, butter	5	@	—
do, large, do	5	@	—
do, bayo	4	@	—
do, pink	4½	@	—
do, pea	5	@	—
BROOM CORN.			
Per ton	$40@120		
DAIRY PRODUCE.			
Butter, Cal. fresh	—	@	—
do, ordin'y roll	27½	@	—
do, choice	33½	@	34
do, new firkin	25	@	28
do, packed	—	@	—
do, New York	—	@	—
Cheese, Cal new	12½	@	15½
do, Eastern	15	@	18
Eggs, Cal. fresh	28	@	30
do. Oregon	28	@	—
do, Eastern	—	@	—
FEED.			
Bran per ton	19 00	@	—
Middlings	26 00	@	—
Hay	15 00	@	23—
Straw	9 00	@	10—
Oil cake meal	30 00	@	—
Corn Meal	30 00	@	40—
FLOUR.			
Alviso Mills, bbl	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Comme'l Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
Santa Clara Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venus, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard. Sac'o	4 50	@	5 75
FRESH MEAT.			
Beef, fr quality	9	@	—
do, second do	7	@	8
do, third do	5	@	6
Veal	8	@	9
Mutton	8	@	—
Pork, undressed	—	@	6½
do, dressed	8¾	@	—
GRAIN, ETC.			
Wheat Cal. coast	1 50	@	1 80
do, shipping	1 80	@	1 82½
do, milling	1 80	@	1 90
do, Oregon	—	@	1 85
Barley, Dark C'st	—	@	1 25
do, Light	1 27½	@	1 30
do, Brewing	1 35	@	1 40
Oats, Coast	2 15	@	—
do, Light	2 20	@	—
Corn, White	1 30	@	—
do, Yellow	1 27½	@	1 30
Buckwheat	1 75	@	—
Rye	2 25	@	—
HOPS.			
California, 1871, lb	—	@	—
do 1872	50	@	—
Eastern, 1872, lb	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	30	@	45
Honey, choice	10	@	15
Los Ang. Honey	30	@	—
Onions	4 00	@	4 50
Flaxseed	3	@	—
Canary do	4	@	5
Mustard do, white	1½	@	2
do, brown	2	@	3
Peas, Chili	25	@	—
Alfalfa	25	@	—
Ky. Blue Grass	50	@	—
Timothy	25	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	4	@	6
Pecan nuts	16	@	18
Hickory do	12	@	—
Brazil do	16	@	—
Coc'anuts, ₱100	10 00	@	—
Alm'ds h'd shell	12½	@	15
do, soft	23	@	25
POTATOES.			
Sweet, per lb	75	@	1 00
Humboldt	1 15	@	1 25
Monterey	75	@	1 00
Tomales	75	@	1 00
POULTRY & GAME.			
Live Turkeys lb	18	@	20
Hens, per dz	9 25	@	9 75
Roosters	9 25	@	9 75
Chickens	7 50	@	8 50
Ducks, tame, doz	12—	@	14—
Geese, per pair	3 00	@	3 50
Hare, per doz	2 50	@	3 00
Snipe, Eng., doz	2 00	@	—
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	11½	@	13½
Eastern do	11	@	13½
do sugared	12½	@	—
Cal. Hams	12½	@	—
Eastern do	14½	@	15
Cal. Smoked Beef	12	@	—
WOOL, ETC.			
Choice Nor'n, fall	18	@	19
do spring	22	@	—
Seedy	12	@	13
Burry	12	@	13
Hides, dry	19½	@	—
do wet salted	9	@	9½
Tallow	7 —	@	7 50

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	15½	@	—
Flour Sacks ½s	16½	@	—
" ¼s	8½	@	9¼
Stand. Gunnies	17	@	17½
" Wool Sacks	—	@	70
" Barley do	16	@	—
Hessian 40-in. gds	—	@	12
do 60	17	@	17½
CANNED GOODS.			
Ass't'd Pie Fruits in 2½ lb cans	3 00	@	3 25
do Table do	4 00	@	—
Jams & Jellies	4 —	@	4 25
Pickles ½ gl	3 25	@	3 75
COAL—Jobbing.			
Australian	14 00	@	—
Ooose & Bel. Bay	10 00	@	—
Seattle	11 00	@	—
Cumberl'd, cks	25 00	@	—
do bulk	22 50	@	—
Ohile		@	—
Lehigh	18 20	@	—
Liverpool	12 50	@	—
West Hartley	16 00	@	—
Scotch	16 00	@	—
Scranton	14 00	@	—
Vancouver's Isl.	12 50	@	—
Charcoal, ₱ bk	00	@	—
COFFEE.			
Costa Rica per lb	19½	@	—
Guatemala	18½	@	—
Java	18½	@	19
Manilla	17½	@	—
Ground in cs	23	@	—
Chicory	8	@	10
FISH.			
Pac. Dry Cod, new bundles, ₱ lb	8½	@	—
Eastern Cod	8½	@	9
Salmon in bbls.	8 00	@	—
do ½ bbls	5 00	@	—
do 2½ lb cans	—	@	—
do 2lb cans	—	@	—
do 1lb cans	—	@	—
Pick. Cod. bbls	—	@	—
do ½ bbls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, bxs ₱ lb	—	@	50
Mack'l, No. 1, ½ bls	—	@	10 00
" Extra	—	@	14 00
" in kits	2 00	@	3 25
" mess	—	@	3 00
" ex. mess	—	@	4 50
NAILS.			
Assorted size	5½	@	8 —
OILS.			
Pacific Glue Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Cocoa Nut	60	@	—
Olive Plaguiol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	45	@	50
Polar, refined	60	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Oleophine	40	@	—
Devoe's Bril't	44	@	46
Long Island	42	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	42	@	—
PAINTS.			
Stand. White Lead	—	@	12½
Whitening	—	@	2½
Chalk	—	@	2½
Paris White	—	@	3
Ochre	—	@	3½
Venetian Red	—	@	3
Red Lead	—	@	11½
Litharge	—	@	11
RICE.			
China No. 1, ₱ lb	6½	@	7
do 2, do	5¾	@	6½
Japan	6	@	7
Patna	7	@	—
Hawaiian	8½	@	9
SALT.			
Isl. Bay, per ton	6 50	@	15—
Carmen Island	14 00	@	30—
Liverpool fine	24	@	—
do coarse	19 00	@	20—
SOAP.			
Castile, ₱ lb	12	@	—
Local brands	5½	@	7
SPICES.			
Allspice, per lb	17	@	18
Cloves	27½	@	30
Cassia	37	@	—
Nutmegs	1 00	@	1 05
Whole Pepper	22	@	—
Ground Allspice	22½	@	—
do Cassia	40	@	45
do Cloves	30	@	—
do Mustard	25	@	—
do Ginger	22½	@	—
do Pepper	22½	@	—
do Mace	30	@	—
do Coffee	25	@	—
SUGAR, ETC.			
Cal. Cube per lb	12¾	@	—
Circle A crushed	12¾	@	—
do granulated	11¾	@	—
Golden O	10	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls.	42½	@	—
do in ½ bls.	45	@	—
do In kegs	50	@	—
TEA.			
Oolong, Canton	19	@	25
do Amoy	23	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Conn. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut cbe'g, gr.	8 50	@	9 25
Fine cut chewing, bud'ts. ₱ lb	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

San Francisco Metal Market.

IRON.—			
Scotch Pig Iron, ₱ ton	$60 00	@	—
White Pig, ₱ ton	60 00	@	—
Refined Bar, bad assortment, ₱ lb	—	@	06
Refined Bar, good assortment, ₱ lb	—	@	06½
Boiler, No. 1 to 4	05½	@	06
Plate, No. 5 to 9	06½	@	07
Sheet, No. 10 to 13	07½	@	—
Sheet, No. 14 to 20	08	@	08½
Sheet, No. 24 to 27	08	@	09
Horse Shoes, per keg	9 00	@	—
Nail Rod	10½	@	—
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
COPPER.—			
Braziers	—	@	38
Copper Tin'd	—	@	—
O. Nie's Pat	—	@	—
Sheathing, ₱ lb	—	@	29
Sheathing, Yellow	—	@	—
Sheathing, Old Yellow	—	@	12½
Composition Nails	—	@	30
Composition Bolts	—	@	30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50	@	14 —
Roofing Plates	13 00	@	13 50
Banca Tin, Slabs, ₱ lb	—	@	42½
STEEL.—English Cast, ₱ lb	—	@	25
Drill		@	—
Flat Bar		@	—
Plough Points		@	17
Russia (for mould boards)		@	18
ZINC.		@	10
Zinc, Sheet		@	10
NAILS—Assorted sizes		@	9

FRUIT MARKET.

The supply of Los Angeles Oranges and Lemons this week is good. There are not many Bananas in the market, but enough to supply the demand. Several consignments of Strawberries have arrived this week, and have been sold at $1.25 to $1.50 per pound. The prospects are that the warm weather will cause a large supply.

FRUIT MARKET.				PEARS, ₱ lb	5	@	8
Tahiti, Or. ₱ 1000	30	@	35 —	Peaches, ₱ lb	10	@	12½
Cal. do	30	@	45 —	Apricots, ₱ lb	—	@	—
Limes, ₱ M	15	@	20 —	Plums, ₱ lb	5	@	8
Cal. Lemons, 1000	30	@	40 —	Pitted, do ₱ lb	15	@	0
Bananas, ₱ bnch	3	@	4 —	Raisins, ₱ lb	8	@	12½
Pineapples, ₱ dz	—	@	—	Black Figs, ₱ lb	5	@	8
Apples, eat'g, bx	1 50	@	2 50	White, do	15	@	18
" Cooking	1 75	@	2 00	**VEGETABLES.**			
Pears, Eating	2 00	@	3 00	Cabbage, ₱ dz	—	@	2 00
" Cooking	—	@	2 00	Garlic, ₱ lb	6	@	8
Pomegran's, ₱ 100	—	@	—	Green Peas	10	@	12½
Grapes, Mission	—	@	—	Green Corn ₱ doz	—	@	—
Rose of Peru	—	@	—	Marrowfat Squash per ton	7 50	@	10—
Blk Hamburg	—	@	—	Artichokes, ₱ lb	2	@	3
Black Prince	—	@	—	Tomatoes, t. A. ₱	12½	@	15
Muscat of Al'r	—	@	—	String Beans, ₱ lb	—	@	—
Flame Tokay	—	@	—	Lima Beans	6	@	8
Black Morocco	—	@	—	Peppers dry	25	@	30
Wine Grapes	—	@	—	Okra	35	@	40
DRIED FRUIT.							
Apples, ₱ lb	6	@	8				

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, March 19, 1873.

The price of sole leather continues the same. French Calf Skins still have an upward tendency, with prospects of a further advance.

City Tanned Leather, ₱ lb			26@29
Santa Cruz Leather, ₱ lb			26@29
Country Leather, ₱ lb			25@28
Stockton Leather, ₱ lb			26@29
Jodot, 8 Kil., per doz			$50 00@54 00
Jodot, 11 to 19 Kil., per doz			66 00@85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			55 00@70 00
Lemoine, 16 to 18 Kil., ₱ doz			75 00@77 50
Levin, 12 and 13 Kil., per doz			68 00@70 00
Cornellian, 12 to 16 Ko			57 00@67 00
Cornellian Females, 12 to 13			60 00@64 00
Cornellian Females, 14 to 16 Kil			66 00@72 00
Ogeran Calf, ₱ doz			54 00@
Simon, 18 Kil., ₱ doz			60 00@62 00
Simon, 20 Kil. ₱ doz			65 00@67 00
Simon, 24 Kil. ₱ doz			72 00@74 00
Robert Calf, 7 and 8 Kil			35 00@40 00
French Kips, ₱ lb			1 00@1 30
California Kip, ₱ doz			50 00 to 60 00
French Sheep, all colors, ₱ doz			8 00@15 00
Eastern Calf for Backs, ₱ lb			1 10@1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@13 00
Sheep Roans for Linings, ₱ doz			5 50@10 50
California Russett Sheep Linings			1 75@5 50
Best Jodot Calf Boot Legs, ₱ pair			5 25
Good French Calf Boot Legs, ₱ pair			4 50@5 00
French Calf Boot Legs, ₱ pair			4 00
Harness Leather, ₱ lb			30@37½
Fair Bridle Leather, ₱ doz			48 00@72 00
Skirting Leatber, ₱ lb			34@37½
Welt Leather, ₱ doz			30 00@50 00
Buff Leather, ₱ foot			18@20
Wax Side Leather, ₱ foot			20@
Eastern Wax Leather			26

San Francisco Retail Market Rates.

WEDNESDAY NOON, March 19, 1873

FRUITS, VEGETABLES, ETC.

Fruits are in about the same supply as last week, save that Oranges and Lemons are more plentiful. Vegetables are in plentiful supply, and are becoming cheaper. Mushrooms are scarce. Cucumbers are coming in very fast. Asparagus, both white and green, is abundant and good. The new Strawberries are coming forward.

Apples, pr lb	5	@	12½	Carrots,

Stock Notices.

H. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO..

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.



GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough-bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,
fe15-2m Oroville, Butte County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS." —*Alexander.*

"You get no FIGS from THISTLES."—*Old Proverb.*

I have 20 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.

Office and Rooms, in Webb's Building, 37 Second St., opposite the Grand Hotel.

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.



—ALSO—

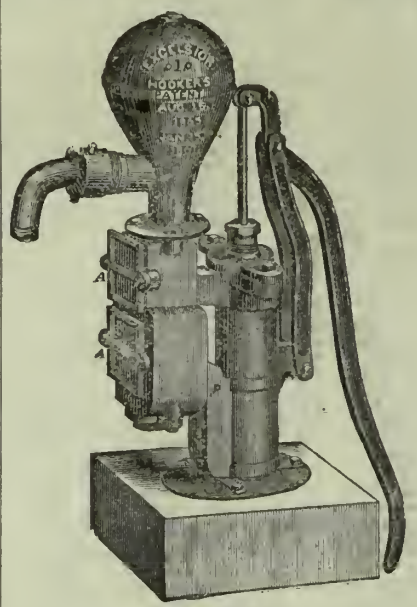
THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

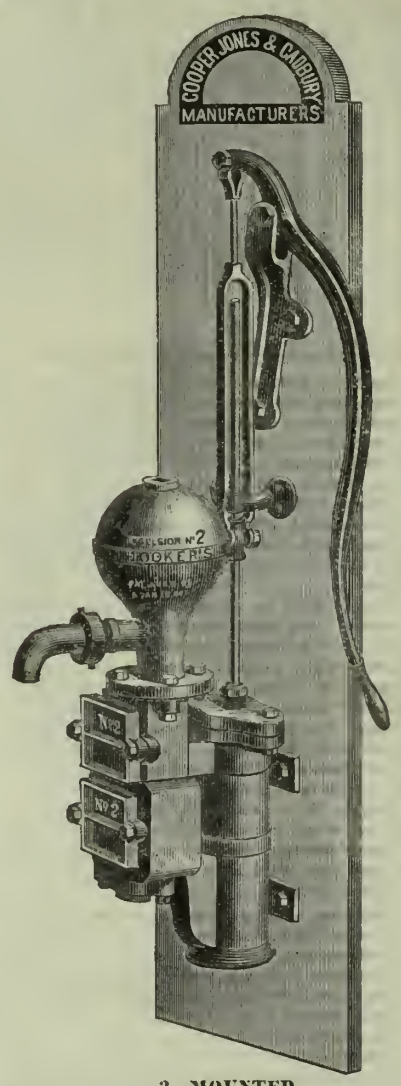
THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

THE "EXCELSIOR" FARMERS' PUMP.

After Six Years use proving itself the Best Pump on this coast, and consequently the CHEAPEST.



NO. 1—BASE.



2.—MOUNTED.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

REMEMBER,

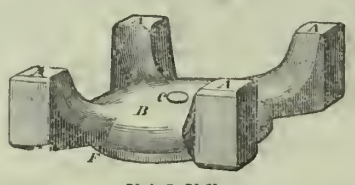
Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

Every Pump Warranted,

With no expense, if defective to the purchaser.



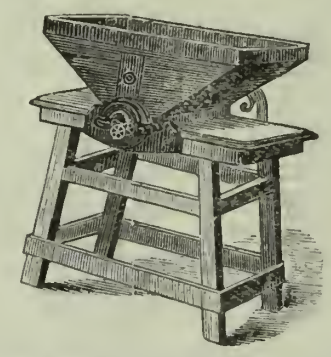
VALVE.

BRITTAN, HOLBROOK & CO.,

111 and 113 California street, San Francisco (and also Sacramento), General Agents.

Send for Circular. 4v5eowGt

THE CELEBRATED CHALLENGE FEED MILL



For Farm use and Custom work. The only Practical Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

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WILDER'S CONSTITUTION POWDER,



FOR HEAVES, STAGGERS, FITS, COLIC, LUNG FEVER, COLDS, COUGHS,

And used with great success for the

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Wilder's Fox Ointment,

For Spavins, Curbs, Splint, etc. Send for circular containing reference.

Money refunded if satisfaction is not given.

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Manufacturers of and Dealers in

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21v2-1y

BEST SHADE IN THE WORLD!

—o—

The Rustic Window Shade.

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This New and Elegant article of manufacture

Is Fast Superceding all other Styles of Window Shades in Use

Wherever it has been introduced and its merits tested.

It is made of Wood, is Light, Strong and Extremely Durable.

It Lowers from the Top or Raises from the Bottom,

And forms a complete and the only substitute for Inside Blinds.

When soiled it can be cleaned with water without the slightest injury.

Its fixtures are simple, work to perfection, and never get out of order.

Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

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HOLLIHAN & BEARDSLEE.

☞ For sale by all Furniture and Carpet Dealers.
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Calvert's Carbolic SHEEP WASH.



THE ONLY CURE AND PREVENTIVE OF

Scab and Foot Rot in Sheep,

Of Lice in Chickens,

And Ringworm in Cattle.

Sole Agency at T. W. JACKSON'S,
416 Sacramento street,
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Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

Carpets, Oil Cloths and Upholstery Goods,

IS AT

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14 Third Street,..... .....Three doors from Market,

SAN FRANCISCO.
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SULTAN SECOND.

See description in Pacific Rural Press January 4, 1873

Address N. GILMORE,
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40 Thoroughbred Angora Goats for Sale!

Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

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☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,

Spangled Gold and Silver Hamburghs,

Spangled Gold and Silver Polish,

Houdans, Buff Cochins, Silks, Black Spanish and Games.

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Importer and Breeder of Choice Poultry,
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EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,
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Imported Fowl of All Choice Breeds,

ALSO EGGS FOR HATCHING,



From all the different varieties; packed carefully to send any distance.

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Stalls, 43 and 44, California Market,

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FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
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THE PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

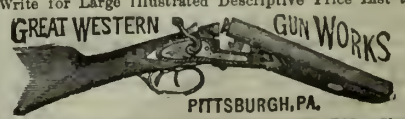
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The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

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O. W. CHILDS, Proprietor.

D sires to call attention to his large and desirable assortment of

Orange, Lemon, Lime and Citron Trees,

POMEGRANATE AND OLIVE TREES,

Including a limited quantity of ORANGE, Grafted and Budded on Lemon Stock.

HAS ALSO ON HAND,

50,000 Choice English Walnut Trees,

From 2 to 10 feet high. Price, $10 per hundred. And a very superior lot of

Italian and Spanish Chestnut Trees,

1 to 6 feet high, at very low rates.

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Containin the Largest and Best Assorted Stock of

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On the Pacific Coast.

Embracing—FRUIT TREES AND PLANTS of all and every kind, SHADE AND FOREST TREES, EVERGREEN AND ORNAMENTAL TREES AND PLANTS, FLOWERING SHRUBS, HOT HOUSE AND BEDDING PLANTS, BULBS, Etc. Etc.

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Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine assortment of

Ornamental Shrubs?

Then call at the

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Mulberry Trees for Sale

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THE HANDSOMEST, BEST AND CHEAPEST

SHADE TREES,

For the Yard, for the Sidewalk, or the Roadside.

— ALSO —

Fruiting Mulberry,

Of all varieties, and for Silk Culture.

ALSO, FRUIT, SHADE AND ORNAMENTAL TREES,

Of every kind—grown in the best Nurseries in the State—for sale at the Lowest Prices.

Also, OSAGE ORANGE HEDGE PLANTS.

All orders promptly attended to. 26v4-3m

Twenty Years in the Nursery Business in California.

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THREE MILES NORTH OF OAKLAND,

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Offers for sale a good assortment of Forest Trees suitable for windbreck or ornamental helts; 50,000 Monterey Cypress and Monterey Pine, from six inches to six feet in hight; 100,000 Blue Gums, mall, fit for forest culture; Oak Seedling, Orange and Lemon Trees. English Gooseberry, Blackberry and Currant. A beautiful assortment of Roses and Lilacs; also Asparagus Roots.

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LIBERTY NURSERIES,

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I offer at moderate prices a general assortment of

FRUIT, SHADE AND EVERGREEN TREES, AND SHRUBS.

Deciduous Flowering Shrubs, Roses, Etc.

Green House and Bedding Plants in great variety.

Send for Descriptive Catalogue and Price List.

Address **W. H. PEPPER,**
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Bay Nursery,

[ESTABLISHED 1852.] OAKLAND, CAL.

Office and Depot.....Broadway and Thirteenth.
Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Co Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarius, Weeping Cedars, Golden Arbor Vitæs, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introduced of rare merit. Tube Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m **JAMES HUTCHISON.**

THE OLD

Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL and FRUIT AND EVERGREEN and DECIDUOUS SHRUBS; also a large assortment of Choice ROSES too numerous to mention. Green House Plants, Flowers and Bulbs, Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
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THE LARGEST STOCK IN THE STATE AT

H. ALLEN'S NURSERY,

Ccr. McAllister and Buchanan Sts., San Francisco.

Being Agent for the Pacific Ramie Co., and having the largest stock in the State, is enabled to offer extra inducements to purchasers. Orders left at Collie & Stewart's, 18 Post street or addressed direct to H. Allen, corner McAllister and Buchanan streets, will be promptly attended to. fc22-3m

1,000,000 FRUIT TREES,

And an immense stock of

SMALL FRUIT PLANTS, VINES, ROSES, SHRUBS, EVERGREENS, Etc.—200 Acres.

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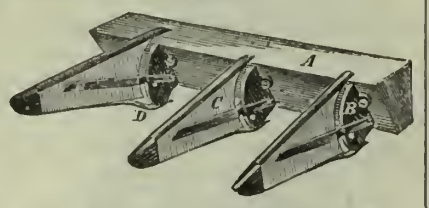
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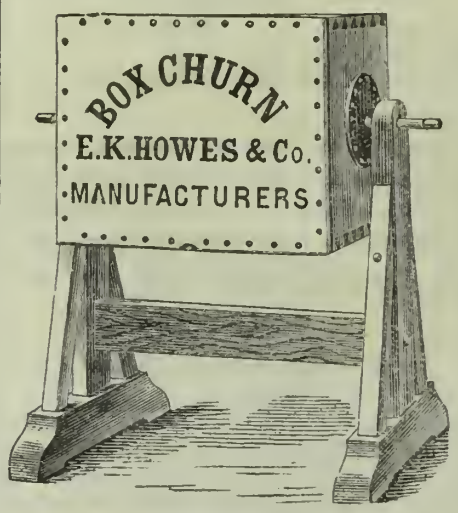
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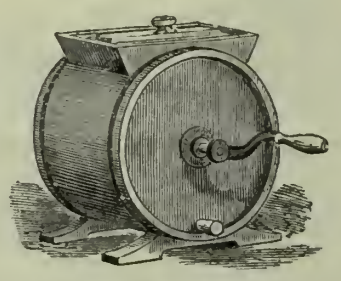
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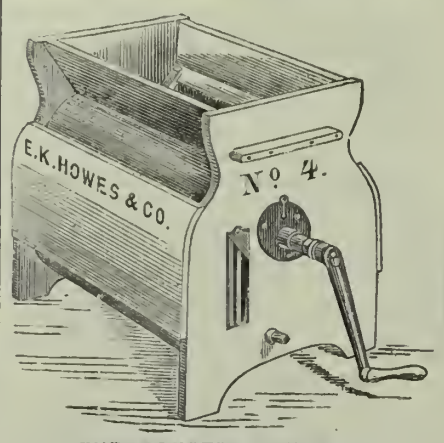


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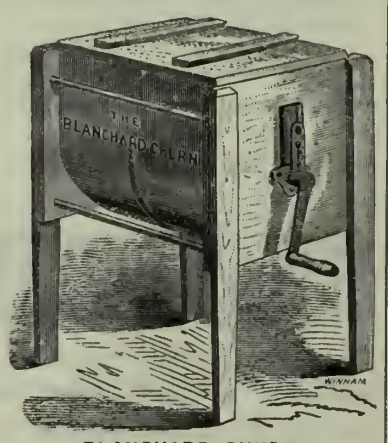


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Mangel Wurtzel,	Long Orange,
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Yellow Globe.	Long Red.

All Imported Seeds.

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Grass and Clover Seeds.

Timothy,	English Rye Grass,
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Orders are respectfelly solicited, and will meet with prompt and faithful attention.

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TO FARMERS AND RANCHMEN.

Improve the Breed and increase the Size of your

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Try the Cross of the Bronze Turkey

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I am breeding from fowls weighing 64 pounds to the pair, and have for sale a few Gobblers and pairs. Orders for eggs received now.

A Bronze Gobbler running with ordinary Hen Turkeys, will make a difference, in a brood of twelve young Turkeys, of five pounds each, that is sixty pounds, worth, at 25 cts, per lb., fifteen dollars, besides a much greater percentage of the young reaching maturity, owing to the extreme hardiness of this breed.

Give them a Trial. Perfect Satisfaction Guaranteed.

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Or, JOSEPH GRAHAM, Haywards, Alameda County.
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SEND this paper to your friends abroad.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MARCH 29, 1873. [Number 13.

Underground Irrigation.

This is a subject every day commanding more and more the attention of amateur culturists as well as the general farmer. It is a means by which our gardens can be efficiently irrigated and made to present a perpetual and unvarying growth of plants, vegetables and fruits, and our lawns and parks a perpetual green, and this without the unsightly and inconvenient process of surface irrigation, with its malarious influences.

In our illustration we present a view of a new invention and its application to the purposes of underground irrigation. It consists of pipes of peculiar construction and their arrangement in such manner as to secure the purposes claimed and desired. The inventor in his description of his appliances, and in his application for a patent, says:

"This is an invention for the conduct of water underground long distances without waste, for the purpose of irrigating the soil to promote the growth of plants, trees and growing crops.

The lower part of the pipe being whole or tight, no water can escape until the pipes are half full, if laid level. The pressure of the water being equal it will issue from the cuts or holes in the upper half in equal quantity at all points. The large box, No. 1, is the supply receiver, to be placed under a pump or dydrant, receiving the conducting pipe at A, which conducts the water in any direction in a straight line; where the direction is to be changed the pipe enters a small box-well, No. 2, which receives similar pipe running in other directions. If the ground is inclining and we wish to extend our pipes, and at the same time retain the same depth in the ground, we are forced to change our level. This is accomplished as represented by box-well No. 3. The pipes enter this on the same level, letting the water out on the other side into pipes on a lower level.

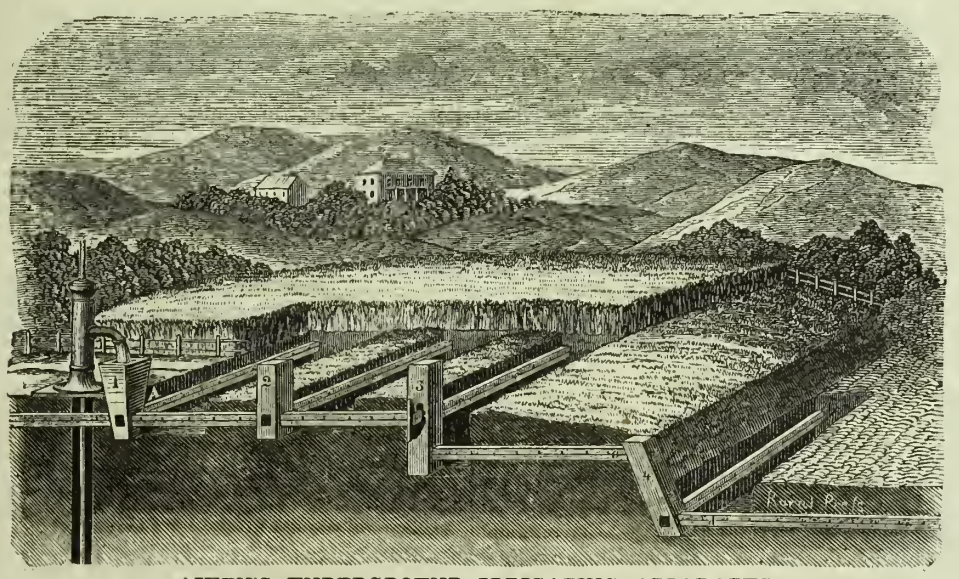
The water in the pipes is controlled and directed by means of valves covering the ends of the pipes in the wells, No. 2, 3 and 4.

No. 4 represents a box-well for conducting water from the upper terrace to a lower terrace on terraced grounds. The pipe enters at C, on the upper terrace, letting the water into the pipes laid on the terrace below, at B, controlled by valves, reached by opening door, F.

The wells are made deeper than the pipes, to receive and hold any sediment contained in the water, and which may be removed when necessary.

These pipes will also answer the purpose of drainage, draining the soil above the level of the pipes of any excess of water during the winter season. By simply removing the plugs in the ends of the pipes we reverse this operation and they become drainage pipes. As the pipes become exhausted water will enter them at the points where it is forced out by pressure in irrigation, and as it flows out at the ends it can be conducted into drains or sewers. This operation will leave the soil above the level of the pipes in a fine condition for the rapid and healthy growth of plants. The pressnre of the water in the wells coming from the snpply pipe keeps the valves closed, they can be opened by the operator by means of a rod attached to them carrying the whole volume of water in either direction."

The nettle comes from Europe.



AIKEN'S UNDERGROUND IRRIGATING APPARATUS.

Aid to Immigration.

Before the Eastern farmer will "pull up his stakes" and start for another land, he very naturally wants to obtain some knowledge of the country to which he proposes to emigrate. We are all the time desiring immigration; we want the solid farmer, the skillful mechanic and practical manufacturer from every land under the sun. We could get a great many more than we do, if we would make a little more exertion; take a little more pains to send abroad to all lands where the English language is read and nnderstood, a larger fund of information than we now do.

True, there are many who now and then sit down and write a letter giving perhaps a glowing description of some particular locality, soil and climate of California; but what is a single letter or a dozen of them, so far as concerns a general knowledge of our vast and varied fields of agriculture, manufactures, and mechanic arts? We ask, what comparison is there between a dozen letters thus written, and the amount of information they might derive from a dozen numbers of the Rural Press? Why there is more in one number of the Press, than a man could write in a week and devote his whole time to it, besides the items of postage, and cost of paper on which to do it.

We think if our friends who receive the Press regularly, and do not trouble themselves to keep a file of it, would send every copy abroad as soon as they have read it, it would be of vast benefit to our State in promoting immigration by spreading broadcast the very information that our friends at a distance are seeking for. But a better way than breaking up the regular file of the Press for this purpose would be for individuals, communities, societies, farmers' clubs and other organizations to order copies sent direct from the office of publication to individuals and similar societies, clubs and organizations in the Eastern States and Europe, to lie upon their tables for the use of members and for distribution.

On the part of the Rural Press we are sending weekly to all parts of the world, large numbers of exchanges, and quite gratuitously, for we can glean but little from those we receive, in aid of California agriculture; and we know that the influence of the Rural upon the minds of inquirers has been in large numbers of cases, most salutary and an efficient promoter of immigration. Send abroad the Rural Press, for everybody wants it, who has ever seen it.

Persian Walnut.

In Sept. last we brought to the notice of the readers of the Press that Rosse & Grant nurserymen at Topeka, Kansas, had introduced the Persian walnut, a nut about a half larger than the English walnut, with very rich meat and shell nearly as thin as paper. We have obtained further information in regard to this nut, to the effect that, the tree usually comes into bearing the seventh year from the planting of the seed. The tree is perfectly hardy south of 42° north. Having a tap-root which descends deep into the earth, it is not liable to be affected by drouth and needs no irrigation.

The tree at ten years old generally attains a hight of 30 or 40 feet, with a head spreading out 25 feet in diameter. The tree grows slowly until about the fourth year, then grows with great rapidity. A sandy loam is probably the best, although it makes but little difference with them, they seem to grow well on all kinds of soil. Undoubtedly this is by all odds the best desert walnut grown.

They should be planted when they are one year old. The nuts are germinated with great difficulty, only about one in twenty of them sprouting. They have beautiful foliage and make a very ornamental shade tree.

Mr. Finch of Alameda ordered from Messrs. Rosse & Grant 50 of these one-year old trees and obtained only 36; of these he has sold at $10 each to Mr. Latham 10 trees; to Mr. Selby 2; to J. D. Roberts 4, and to Wm. Meeks of Alameda 12. The entire stock of these trees—of the Messrs. Rosse & Grant is disposed of, except twenty four-year old trees, which are not for sale. We deem their introduction a valnable acquisition to the list of California nut-bearing trees.

Room for More Still.—It is stated that Mr. Emlay, who has been largely engaged in the tanning business in Michigan has disposed of his interest there and removed with his capital to Gilroy in Santa Clara County, where he embarks in the same business. Heretofore the butchers and farmers of that neighborhood have delivered their hides in San Francisco under contract of sale. They will hereafter be able to find a better market at their own doors. There is a large field for manufacturing industries in this State, and we are pleased to see our Eastern friends coming in to occupy it.

The Farmers are Moving.

In all directions there seems an earnestness ln the movements of the farmers of the State, for mutual support and protection against the power of moneyed monopolies, never before exhibited by this great and important class of our citizens. Clubs are being rapidly organized in nearly every county, and a State organization has an existence that will ere long, we think, make its power felt, for the good of the general agricultural interests throughout the State.

This organization, the State Union Club, holds its next meeting on the 9th of April, in San Francisco.

Among the county or local organizations that of Stanislaus has already projected a Farmers' Savings and Loan Bank, with a capital of $250,000; of which sum $100,000 was subscribed on the spot at the first call of a meeting for that purpose. The object will be to assist farmers who are in need of temporary accommodations for the better prosecution of their respective farming operations. Also will lend its credit or means for the procurement of sacks for the vast prospective wheat crop, the construction of depositories for grain and in procuring its final shipment.

In Contra Costa, the Farmers' Club, in connection with Oakland or Alameda county, are moving in the matter of a narrow-gauge railroad to connect Contra Costa with tide-water at Oakland. Preliminary surveys have already been made and reported upon, subscriptions offered, besides recommending that Contra Costa county vote a subsidy of $200,000 for this purpose direct.

San Joaquin or Stockton has given shape to a farmers' coöperative association, and a liberal subscription has already been made to the stock, sufficient to secure its successful operation at an early day. In other parts of the State similar efforts are being made and enterprises projected that cannot fail to tell for good at no distant day upon the welfare of our agricultural interests.

Four-Hundred Acre Beet Field.

On a recent flying trip to Sacramento and back, we had the pleasure of viewing a four-hundred acre field of sugar beets belonging to the Sacramento Valley Beet Sugar Company, at Davisville, in Yolo county. The field borders the railroad on the south, and the rows of beets which appear about 15 or 18 inches apart run in a direction from the road that enables one to see lengthwise of the rows. At the time of our passing, the beets were up some 4 or 5 inches, so as to show distinctly the rows even in that portion not hoed; whilst on that portion that had received a hoeing, they presented a beautiful and vigorous growth.

There were at the time 25 Chinamen abreast with each a hoe in hand, sweeping in broad plattoon to and fro across the field, extirpating the few small weeds that had made their appearance since the planting. We never saw beets of their age looking better and we predict an excellent crop. We are informed this field is but about one-fourth of all the company have under cultivation this year, the aggregate number of acres being but little less than 1,600.

Should the remainder of the season prove as favorable for the growth and perfection of the crop as it has been thus far, the company cannot but realize a handsome dividend upon their entire investment. The works of the company are situated about four miles east of Sacramento city, near the American river and on a branch track of the Central Pacific Railroad Company.

CORRESPONDENCE.

Hollister and Its Prospects.

EDITORS PRESS:—'Twixt sunshine and showers I grasp the seemingly useless pinion, that has fallen from the wing of some luckless raven and unburdened my mind of its weight through the welcome medium of the PRESS. March, in her annual visitation, is again shedding gladness into the hearts of many weary farmers, with her frequent tearful flirtations. The robin and thrush one moment seek the coverts of the hazle copse to escape the impending storm. The next a ray of sunshine calls them to the topmost boughs to enliven torpid Nature from the last shower's lethargy with forestallments of April lays.

The farming community are still pursuing "the even tenor of their way" and sowing the seed for the Summer's harvest. It may be rather late, but nevertheless the seed continues to fall. The smiling fields for miles around our little village give unmistakable evidence of thrift; barley, wheat, corn and rye can be produced here abundantly; flax has been grown successfully, considering that the experiment was made during one of the dry seasons.

I really believe the tobacco interest of this county, is destined to become one of the leading branches and a staple production. A company has been formed with a large capital to engage in the cultivation of this narcotic, and further to manufacture the article, ready for consumption. Valuable tracts of land have been purchased at high prices around San Felipe, and preparations are being made to build a large number of houses for curing this year's crop. Let us hope their most sanguine expectations may be fully realized; if not for the sake of the lovers of the pure Havana, at least for the glory of our country and the pride of our agriculturists.

Were I so minded I could give satisfactory statistics, amply attesting the productive capacity of this portion of Monterey County; but generally the hardy farmer is satisfied with nothing less descriptive than a bird's-eye view from the top of the surrounding fence.

Nor is it necessary that the husbandman should monopolize the whole of this section with his cereals. The horticulturist here may find ample opportunity to invest, with every indication favoring the production of the grape, that may compete with the Hamburgs and Rose de Peru of the noted vineyards of Los Angeles and Sonoma. As yet but little attention has been directed to that branch of business, from the simple fact that this is a recently settled county, having been held by large grant holders until within the last four or five years, and those who have settled and invested their money have sought a more speedy remuneration than the farmers' occupation.

But now that the yeomanry of the country have possession of what formerly constituted grants, we may look for better things from this section. It was once thought that condemnation rested upon this land because the God of storms had a vengeance to work here, and in order to do so withheld the pluvial showers; but the two years past prove that we are abundantly watered, and no less fortunate than our neighbors of the San Joaquin and Sacramento Valleys.

That Hollister may yet become a place of importance, we have the proof in all our surroundings. Situated at the southern extremity of the Santa Clara Valley, in the midst of an extensive agricultural region, we have little to fear from any rival further south. This is at present, and has strong probabilities of remaining the terminus of the Southern Pacific Railroad.

Our town is the depot of supplies for the noted quicksilver mine of the New Idra, and its sister the Picacho mine.

The valleys of the San Benito and Renoche having no other convenient outlet, pour the wealth of their soil into our midst; while a hundred miles south, east and west thickly stocked with cattle, sheep and goats, procure their supplies from our merchants and ship produce from our depots and stock pens.

J. I. MCCONNELL.

Hollister, March 3d, 1873.

Fruit Culture at Knights Ferry.

[Answer to our Kansas Correspondent.]

EDS. PRESS:—I think I can give your Kansas friend the information he requires, and would say that there are many localities in California where all the fruit and nuts he mentions grow to perfection. I will commence with my own place and give him a list of fruits I produce, viz: Apples, pears, peaches, cherries, quinces, walnuts, almonds, figs, grapes, pomegranates, oranges, lemons, olives, dates, palms, pluma, prunes, apricots, nectarines, and can hope soon to produce bananas and limes. All of said trees are bearing except the olives and dates, which are too young. Many of the fruit dealers of San Francisco can vouch for the quality of my fruit. I have so many varieties of each of the above mentioned fruit that it would take more time to write than I could spare.

S. B. PENTLAND.

Knigh s Ferry, March 18, 1873.

Notes from Marin County.

EDS. PRESS:—Having "done Point Reyes," I returned to Olema and surrendered myself to the tender care of Geary Lansing, proprietor of the Olema Hotel, who, with the assistance of his attachés, Messrs. Marinus and Parsons, soon made me forget the fatigue of my weary trip. Late in the evening, after the distribution of the mail just arrived per stage (John Nelson's stage, by the way), from San Rafael, I was suddenly kidnapped by N. H. Olds, and in a very comfortable vehicle, speedily conveyed to his hospitable domicile, two and a half miles distant, where, by unavoidable weather and unusual good treatment, I was confined several days. As the clouds dispersed, I knocked the ashes out of Nel's meerschaum, remounted my *cavallo* and took up my line of march for Tomales, which place I eventually reached; but could see nothing but rain and mud, and that in the greatest abundance. The prospect was really too gloomy and it was with ineffable feelings of delight that I was welcomed to the hospitable mansion of Eugene White, merchant, postmaster, and proprietor of the village of Marshall, on Tomales Bay; so-called from the owners of the firm of Marshall & Haight, merchants of San Francisco.

This is a delightful spot, and when the narrow gauge railroad, now being built up the coast, is completed, it will no doubt be a great resort for pleasure parties from the city. The house is a large and commodious one, and stands on the beach, within a stone's throw of deep water of the bay, where with the naked eye can be seen the finny denizens of the water at a depth of two fathoms or more.

Mr. Marshall intends making many improvements to the place such as renovating the house, which is quite new, putting out trees, etc. Through the energy and taste of Mrs. White the garden is already supplied with the most choice selection of flowers I have seen.

Leaving Marshall with most favorable impressions I next visited Nicasio, which is already famous as a summer resort, located about twelve miles north of San Rafael and the same distance south of Petaluma, having stage communication with both places. The village consists of three saloons, one store, one church, one butcher shop and two hotels; one kept by Mr. Ed. Jackman, and the other, the Nicasio, by Isaac Noble. The village is pleasantly located in a beautiful valley, bordered on two sides by a pleasant brook, which abounds with mountain trout, one of which weighing fourteen pounds was caught by Mr. Jackman, at whose invitation I partook of an excellent meal of fish.

The new narrow-gauge railroad on which work is rapidly progressing, will run within about four miles of Nicasio, which will no doubt tend to increase the business of that place. Having supplied most of the citizens of this valley with the RURAL PRESS and the ILLUSTRATED PRESS, I returned to this town for new items.

DE O. C.

San Rafael, March, 1873.

Underground Irrigation.

EDS. PRESS:—I notice in your issue of Feb. 22d, an article on underground irrigation. It being a subject of great interest to myself, and as I am ignorant as to the *modus operandi*, I will submit to you my own thoughts in regard to it, and by reading the RURAL, learn more about it from others. I am the owner of a brick kiln, the products of which sell here very slow, and the thought struck me that I might use them at home for the purpose of underground irrigation, by digging a ditch through the centre of the garden or field to be irrigated, say two and a half feet deep, and have leading from the main ditch, small distributing ditches, leading off in opposite directions, of same depth as main ditch; then place in the bottom, brick on edge, about four inches apart; cover with a redwood board, and then cover up entirely with earth, leaving nothing open except at the place where the main ditch enters the garden, and there construct a strainer to keep out any floating substance which might obstruct the underground ditches. I am thoroughly convinced that this plan will work to a charm; but there is one thing which perplexes me, that is about the distance the distributing ditches should be apart; this is a subject worthy of much thought. Please examine it in all its parts and let it be made public through your valuable paper. I raised a crop of potatoes last season, and in one corner of the patch there was a couple of squirrel holes which led the water off under a high piece of ground, and there is where the largest potatoes were found.

The squirrel gave me my first thought of underground irrigation.

R. S. CAMPBELL.

Visalia, Tulare County.

Our correspondent, in a private note, asks for information with regard to the distance that should be left between the distributing ditches. Of course the answer to such a query must depend largely upon the nature of the soil and the modifications of the surface. A regular incline, for instance, would admit of a wider separation than a perfect level. Will some one who has had experience in such matters furnish the desired information?

Monterey Farmers' Club.

EDITORS RURAL PRESS.—At your request I give you a rough outline of our Monterey Farmers' Club. The Monterey Farmers' Club was organized in the town of Hollister, Nov. 30th, 1872, with 42 members; James Fowler was chosen President; M. Pomeroy Vice President; C. G. Lathrop Secretary and T. Maloney Treasurer. Our organization meets the second Saturday of every month and has continued to grow in numbers and interest until at the present time we have sixty members with a fair prospect of many more.

Our last meeting was held March 8th, when many questions of special interest were brought forward, viz.—The price of grain sacks and the best time to buy; also baling rope. Next in point of importance was the report of the standing committee on co-operative stores. After these questions were disposed of the Club chose T. S. Hawkins, M. Pomeroy, G. S. Nash, James Fowler and L. B. Lathrop, delegates to attend the State Union, April 9th, and represent our Club. After transacting some further business of minor importance the Club adjourned until next regular meeting.

C. G. LATHROP, Sec.

Los Angeles County.

We are constantly in receipt of letters asking for further information in regard to Southern California, its climate, soil and agricultural resources. The simple impossibility of answering singly these inquiries, and yet desirous of spreading abroad such facts as we can gather from reliable sources in regard to our beautiful southern border, we must let the RURAL, do what we would be glad to, by letter, if we had the time.

The Great Valley of Los Angeles county, lying between the foothills and the Sea, is 40 miles in length from east to west, by about 15 miles in breadth from north to south, and contains 600 square miles. Between this valley and the hills on the north side is a broad belt of Table land, of equal extent to the Valley, and generally of equal fertility; both combined form an area of 1,200 square miles. The whole containing in one body every desirable variety of soil, adapted to an equal variety of productions, and possessing a climate, which for mildness, equability of temperature, healthfulness, and delicious softness, is unequalled in any part of the world.

Rivers and Lands.

The Santa Ana, Coyote, New and old San Gabriel Rivers, cross this valley from north to south, and have during thousands of years brought down and deposited in this valley, the rich surface soil, washed by the rains from the lands of the interior, and thus by gradual accretion has been formed the rich alluvial soil, of which the valley is composed.

The Stearn's Rancho is located in the center of this valley, and includes within its boundaries the best land between the Santa Ana and the New San Gabriel Rivers, and the hills and the sea.

These lands have been sectionized in conformity with the surveys of the U. S. Government, and are for sale, in small or large lots, on easy terms. They are said to be rapidly filling up with a thriving and industrious population. Anaheim, the principal town of this valley, is located on these lands, and occupies a position near its geographical center.

The tule lands have a soil of great depth, and where irrigated are the best lands for plantations of the orange, lemon, lime, fig and all other semi-tropical fruits; and with, or without irrigation, are said to be excellent vineyard lands. Frosts are so rare that they may be said to be unknown.

The more elevated valley lands, lying from 5 to 15 miles from the sea, with an elevation of from 60 to 150 feet above the sea level, are also remarkably free from frosts, and are almost equally well adapted to the production of semi-tropical fruits and vines. Both produce all of the fruits of the temperate zone. All parts of the valley are noted for the production of corn, rye, barley, oats, potatoes and vegetables of all descriptions. The hardier vegetables are cultivated during the winter. In many places tomato and pepper plants live and grow without protection, and produce year after year.

Dairy Lands.

On the lands near the coast there are thousands of acres of natural green pastures, on which it is said dairymen can make "Juno butter" every month in the year. The climate there is just right for dairying, cool without being cold.

Textile plants, such as cotton, ramie and hemp, have been tested and succeed perfectly. Upland cotton produces a full length of staple, with soft and fine fibre. Ramie grows luxuriantly, yielding two and three crops a year; once planted it requires no renewal, or replanting, being perennial; the labor of the cultivator is confined to irrigating and harvesting the crop.

The rainfall is light, but as vegetation starts with the first rains, and grows steadily throughout the mild winters there, by the time the rains have ceased falling, the grains and grasses have attained half their growth, and in consequence the harvest season commences from one to two months in advance of the northern part of the State.

The Facilities for Irrigation

Are by the water of the rivers brought out in ditches and by artesian wells. The New and Old San Gabriel rivers furnish a large amount of water for irrigation, and the lands lying in that valley, known as the Monte and Los Nietos, are famous for their large crops.

The Santa Ana river furnishes by far the largest supply of water, most of which has heretofore sunk in the sands, and been lost. There is in the Santa Ana river a supply of water within twelve miles of the town of Anaheim sufficient to irrigate 100,000 acres of land during the dryest season. A ditch is now being constructed, that will utilize and make available this priceless treasure, and will clothe the country for miles, about Anaheim, with perpetual verdure; for its rich soil and charming climate, only lacks a liberal supply of water to become an everblooming garden.

On the valley lands water, in inexhaustible supply, is invarably found at a depth of from five to ten feet, and when cultivation is deep and thorough, a steady and constant supply of moisture rises to the surface—a natural subterraneous irrigation, that never fails either in dry or wet seasons.

The source that supplies this water, as well as that of the artesian wells, seems to be entirely independent of any local supply, either by rains or by the rivers, as it does not vary either in wet or dry seasons. This is particularly the case with regard to the artesian wells.

Artesian wells have been bored in all parts of the valley, and abundant streams have been obtained, at depths varying from 40 to 400 feet; in fact, a successful well seems to be only a question of depth. Most of the streams are reached at a depth of less than 200 feet. An average well is sufficient to irrigate 40 acres of land; by means of it the possessor becomes entirely independent of, and indifferent to, the rainfall. The artesian well is the most certain and reliable of all sources of water supply. Rain may fail, rivers may dry up, or sink into the earth, but the flowing well fails not. It has been demonstrated that they can be obtained in all parts of the valley, and also on a large portion of the table land, and that they will afford an ample supply of water for all purposes.

Cultivation and cropping never cease on irrigated land; two and three crops per year are raised. Alfalfa produces a continuous crop, and ten crops of hay or grass are made per annum. Horses, cattle, sheep, goats, hogs, and poultry thrive, and are extremely free from disease. The climate seems to be suited to all kinds of animal and vegetable life.

Sugar Making

Has never been tried in this part of the State, but there is no doubt that when fairly tested, it will be successful. The sugar beet finds a congenial soil in our valley; it can be planted and grown every month in the year, and as a constant succession of crops can be raised, the sugar factory could be kept in full operation during the whole year, instead of about five months, as in the northern part of the State. This fact is well worthy the consideration of persons about to invest in that business. The Chinese Sugar-cane is perennial, the root does not die. The sugar-cane of tropical countries is also grown, by the native California population, and is sold in the markets of Los Angeles just as it is in the towns of the tropical countries further south. The winters there are not so cold, and the frosts are much less severe, than in those parts of Texas and Louisiana where sugar making is profitable, and whatever might be the results of the culture of the cane, there is no doubt as to the Sugar Beet, which is certain to prove a success.

Fruit Productions.

Oranges and Lemons bear at nine years, and at twelve years each tree yields an average of from 600 to 1,000 fruits per annum; oranges are worth about $4 per thousand. Limes are in full bearing at five years and equally profitable. Figs in full bearing at five years, bear two crops. When dried pay well. The Olive and Pomegranate thrive everywhere in the valley. Walnut trees bear at nine years; at 12 yield from 80 to 100 pounds of nuts, worth from 8 to 10 cents per pound. Almonds, come into full bearing at five years. The banana and pine-apple have been raised and have ripened their fruit in the open air without protection. The date palm is perfectly hardy and produces fruit. The crops of fruit on the orange, lemon and lime are sure; they are entirely unaffected by any frosts that have ever occurred in this valley. The walnut crop is also always sure, and the quality very superior.

EXPLORATION OF AFRICA.—A dispatch from Berlin gives the following item: A thorough exploration of Africa, from the west to the east coast, has been under contemplation for some time, and it is believed that all preliminary arrangements for the success of the undertaking have been made. The geographical societies of Germany, who have had them under consideration, have adopted a plan by which they propose to complete from the west coast of Africa the discoveries made by Dr. Livingstone from the east coast.

THE poorest education that teaches self-control is better than the best that neglects it.

Miscellaneous.

Stockton Farmers' Cooperative Union.

An adjourned meeting of farmers was held Saturday March 15th, for the purpose of hearing the report of a committee appointed at a previous meeting to obtain subscriptions to the stock of a Farmers' Coöperative Union and Joint Stock Association, proposed to be organized. The meeting was called to order by Hon. Samnel Meyers, who nominated A. C. Paulsell as Chairman. Mr. Paulsell was unanimously elected. On motion, Hon. L. J. Morrow and Hon. J. F. Woodward were chosen secretaries.

The chairman announced that at a meeting held March 1st, a committee consisting of fifteen members, was appointed to solicit subscriptions to the capital stock, and to report March 15th, and he then called upon the members of said committee to come forward and report. Six members of the committee responded, each handing in a list of subscribers, the snbscriptions aggregating about five thousand dollars, making a grand total up to that time of about $27,000.

Mr. Meyers stated that, from conversation he had held with several farmers, he was under the impression that the liability each subscriber would assume was not clearly understood, and said that it would be well to give information upon that point so that many disposed to aid the organization might be satisfied and subscribe without hesitancy. He did not wonder that some had been a little shy—they wanted information, as he also did himself.

The chair said that he had examined the law pretty thoroughly on the matter, and he was satisfied that each stockholder would be liable only for the amount of his subscription. In case of expenditures in excess of the capital subscribed, the Board of Directors would be held responsible for every dollar of such excess.

He said that the proposed organization was wholly for mutnal protection—a joint stock company, and he had, thus far, seen nothing that so plainly pointed in the proper direction as the action taken by the farmers here. He spoke at length upon the advantages to be derived from the organization, and expressed full faith in the ability of the farmers to manage their own business. He urged combination on the part of the farmers in order the more effectually to protect their interests.

Had a combination existed last year, the farmers of California might have saved an immense amount of money in the purchase of sacks alone. In illustration of this point he referred to the fact that about $300,000 was saved to the farmers by a comparatively small quantity of sacks having been brought from the East by rail and thrown upon the California market at an opportune time for the farmers last year.

Mr. Monroe desired to know if it was the purpose of the proposed association to place profits on the sacks imported sufficient to meet the necessary expenses of the organization merely or was it the design to increase the profits to pay interest on the money invested? He closed his remarks by expressing a hope that the proposed organization was not another Visalia Railroad affair.

Responsibility Indispensable.

Mr. Meyers said that the farmers in their individual capacity, were simply at the mercy of existing combinations, which could only be met and successfully confronted by a combination on the part of the farmers. An individual could import a million of sacks, if he was responsible. There must be well defined responsibility and then manufacturers would have confidence. Responsibility was necessary in order to establish confidence. We must, he said, have responsibilty, or we might organize until doomsday without obtaining sacks, or gaining the objects desired to be gained. Confidence, he continued, was just as good as money.

If the farmers have an incorporation thoroughly responsible, they could obtain sacks as cheaply as Friedlander. He argued that the farmers, through their organization, should confine their efforts simply to the matter of procnring sacks, and of obtaining the best market for their grain. There must be confidence established on both sides—perfect good faith must be established between the organization and sack manufacturers and purchasers of grain.

Mr. Hitchcock considered it necessary for each stockholder to bind himself to ship or dispose of his grain through the organization. Some, he said, objected to this arrangement. The object, as he understood it, was to give the Board of Directors power and authority to charter ships to carry away the wheat; and it would work hardship and trouble if ships were to arrive nnder charter and wheat could not be readily obtained to make up reqnired cargoes. He thought that each farmer should bind himself to sell at least seventy-five per cent. of his wheat through the organization.

Mr. Fairchild remarked that the sack question had been thoroughly discussed at the preliminary meetings, and he saw no necessity for renewing the subject. If he engaged to take ten thousand sacks, he would be responsible for the price of that number; but he did not want to be bound by any obligation. He thought to be bound to buy sacks and to dispose of grain through the organization was wholly undemocratic. Mr. Meyers here remarked that he did not wish to be misunderstood; the organization was simply to be the

Farmers' Agent.

When the farmer wanted either to ship or purchase he would give notice to the organization. The Chairman remarked that he considered all the discussion premature; all these matters could be settled by the stockholders in the adoption of by-laws. His idea was that the business should be conducted in such a manner as to yield a small profit on the investment. At some length he entered upon the details, which, he said, would be properly determined by the stockholders in making up and adopting a code of by-laws.

Mr. Campbell said that it had been suggested that all farmers must have an individual interest in the matter. Friedlander, he thought conld afford to sacrifice five millions of dollars to break up the plans of farmers and maintain his own monopoly. If, without any obligation on the part of farmers to sell through the organization, Friedlander should pay higher for wheat, then sell to Friedlander so long as he paid more than could be otherwise obtained and no longer, and when he failed to pay more then let the organization ship on account of the farmers.

Mr. Campbell considered the sack question quite a different affair from that of disposing of grain to the best advantage. Mr. Hitchcock moved that books be opened and that any person present desiring to subscribe should have an opportunity of so doing. The motion was carried. Mr. Myers moved that the stockholders meet at 1 o'clock P. M. Saturday, March 22d, and that they organize with what capital stock that may by that time be subscribed. He thonght it would be well to reflect upon the matter until that time. The motion was carried. At this stage of the proceedings, all who desired to subscribe to the capital stock were invited to step forward and place their names on the list. About $2,800 was subscrib ed on the spot.—*Independent.*

California Seedling Pears.

At a late meeting of the New York Horticultural Society, President Barry made an interesting report of the result of an experiment in growing seedling pears in California, part of which is presented verbatim. He said "In the month of November last, I received 26 varieties of seedling pears raised by Mr. Bernard S. Fox of San José, Cal. Their appearance astonish me. Many of them were so much like some of our old, well-known sorts that I half suspected by friend Fox of playing a joke on me. There were Bloodgood, Seckel, Lawrence, Winter Nellis, Beurre Blairgeau, Beurre Bosc, Eastern Beurre, Duchesse d'Angouléme. Beurre Superfine, Glout Morceau, and others.

Some friends, very good judges, to whom I send specimens, had the same doubt in regard to their being seedlings. When I began to examine them closely and cut them, I found they were quite distinct from the sorts they resembled, and were positively new. I then wrote to Mr. Fox for some account of their origin, and he answered that they all sprung from the seed of the Belle Lucrative, sown in 1863, and had fruited in the rows where they had first grown.

Some bore the fifth year, and the sixth over 200 bore fruit. One-fourth of the trees have not yet fruited, and for five years to come new fruits may be expected. Many of these varieties are fully equal in size and beanty to our best, and many have the advantage of beiug quite late. Generally speaking, they are deficient in vinous flavor, like the Eastern Beurre and others of that class. Only one or two were slightly vinous; but some were justly entitled to rank as best. A few of the largest appeared to be of inferior quality; one specimen of these, resembling Nouveau Poiteau in 1871, weighed two and one-half pounds.

This is, beyond doubt, the most remarkable instance of success in raising seedling pears on record. And the fact that all are from seed of Belle Lucrative, and none like that variety, but like all the others growing around, is both curious and interesting, showing that the mother plant did not affect the character of the varieties. This might not have been the case had some other varieties supplied the seed. Much of this success is, no doubt, due to the peculiar climate of California. The early age at which these trees begin to bear, even in the seed-bed, seems strange to us. Mr. Fox wrote me he could have sent 80 varieties the past season.

We may now cease looking to the Old World for new varieties of pears, and turn our attention to the Pacific coast. Mr. Fox has already raised pears superior to nine-tenths of the new varieties received from Europe in 20 years. And we shall not only get new varieties from the Pacific coast, but we must expect to see our markets filled with their pears. The supply from that source is already large, and I am informed that extensive operations are in progress with special reference to supplying the Eastern markets.

Mr. Fox visited all the larger pear orchards in the Eastern States the past season, and wrote me that he concluded we were not making much progress. Last year he had sold 30 tons of pears, and had 10 left. Over 1,000 bushels of these were Winter Nellis. This year he had on his own and two other orchards over 1,000 tons. He says he can grow pears at one cent per pound; so, notwithstanding the distance and cost of carriage, we are likely to have strong competition in our markets."

Mr. B. concluded the supply from California will materially reduce prices in the future in our markets, but not to so great an extent as to make pear growing here other than highly profitable. In the discussion following this paper Mr. Barry said he had paid a good deal of attention to the quality of the California fruit as compared with our own, and concluded it was inferior but still very good—so good that the consumers would, in general, be satisfied. Other members coincided in this view.

The Spectroscope—An Interesting Lecture.

Prof. Neri introduced his third lecture on spectrum analysis by remarking that, as his audience had already, by previous lectures, mastered the principles upon which spectrum analysis is founded, he would now approach

The Method of Its Application.

A fine spectroscope was introduced to the audience, and the principles of its construction and connected appliances were fully explained in detail, and also the successive steps and discoveries by which it has been brought to its present wonderful state of perfection. The analysis of light by the prism as discovered by Newton, 200 years ago, laid the foundation of spectrum analysis. But Newton made his observations by receiving the rays of the sun through a round hole—a method which never would have led to the discovery of the spectroscope. Hence the next important step was not made until 1852, when Walloston used a *slit* instead of a round hole to receive the rays. The subsequent introduction of the collimating lens, by Mr. Sims, in 1830, by which the rays were properly collected in parallel lines before the observer rendered the spectroscope an instrument of practical value; and finally the introduction of the telescope, as an adjunct, still further perfected it, and rendered possible the magnificent results obtained by Bunsen and Kirchoff in 1860 and '61. The very latest introduction is the micrometer scale, by which the observer is able to fix accurately the position of the bands of light within even a small fraction of a second of time—as must necessarily be the case in obtaining the spectrum of a flash of lightning. The spectroscope, together with the micrometer, was projected upon the screen by the use of a magic lantern and the electric light, so that it could be readily explained to the entire audience.

Sir Charles Wheatson, in 1835, was the first to distinguish metals by their different colored spectra, and it is considered the greatest triumph of the spectroscope that four new metals —rubidium, caesium, thallium and indium— were discovered by that instrument within the space of four years. Since the spectroscope became of practical value, the progress in science and the arts has made most wonderful progress—an advance largely due to the results of this wonderful instrument.

In order to give a practical demonstration of the use and operation of the spectroscope the lecturer caused various metals to be burned in a voltaic arc, in such a manner as to throw their spectra upon the screen, when the manner in which the various colors of the metals under examination were brought out, was beautifully apparent to every member of the large audience present. It was thus made apparent why all substances examined by the spectroscope must be in a vaporized condition before they can be analyzed by that instrument, that is before the light which they emit can be divided up into its distinct colors so as to fall into their proper places on the spectrum.

When a solid body is simply heated to a luminous point, say to a red heat, so as to give off light, without vaporization, the light is not divided into component colors; but falls upon the screen in what is termed a continuous spectrum — that is, a spectrum made up of all the components of the light exhibited in a combined state, like sun-light when not separated by a prism. In such a condition light cannot be analyzed, and, of course, we can tell but little of the nature of the body so emitting its light.

Hence the spectroscope readily reveals to us whether a luminous body—a star, a comet, a planet, or any highly heated earthly substance —submitted to it is solid or gaseous. Of course a solid body surrounded by a gaseous atmosphere, or giving off volumes of gas would be reported *gaseous*. These are very imporant facts in connection with the application of spectroscopic examinations of the heavenly bodies. It is an important and well-ascertained fact that no two vaporized substances ever give off lines corresponding in number, color and location on the spectrum. Hence no one substance need ever be taken for another, when submitted to the spectrum.

The Spectroscope Applied to the Industrial Arts.

As illustrative of the manner in which the spectroscope is applied to the industrial arts, a view of a Bessemer steel converter was thrown upon the screen, and the method was explained how the very instant when cast iron was converted to steel, was distinctly and intelligently shown to the audience. Without the use of this instrument such knowledge could only be (and even then imperfectly) acquired by years of practice and perhaps at the cost of spoiling many tons of iron. Thus it is by the spectroscope only that this, one of the most important inventions of the age has been rendered complete and perfect in its operation.

The Spectroscope Utilized upon Dark Substances.

The lecturer next proceeded to show how the spectroscope could be made useful in detecting adulterations in common articles of food, of wine, etc., to determine the presence of poisons in blood.

This was accomplished by the principle of the *absorption* rather than by the emission or analysis of light. If a small quantity of cheese or butter, or any similar substance was dissolved in some menstruum like ether, and ordinary light passed through it, that light would be more or less absorbed by the substances present, the amount of which absorption may be known, and the agent causing it detected.

The presence of an infinitessimal portion of carbonic acid in blood could thus be detected, although there might not be one-thousandth part of a grain of blood submitted to the test, so delicate and absolutely perfect is the instrument.

One of the most delicate and beautiful experiments was introduced as the closing one, showing that the spectroscope possessed the property of bringing out the phosphorescent properties of bodies. It was possible, for instance, thereby to unerringly detect a false from a genuine diamond—as the genuine diamond is phosphorescent, yet almost imperceptible to ordinary vision, while no imitation, either of paste or quartz, possesses that property.

This was decidedly the most interesting lecture of the series, thus far, and was illustrated by a great number of experiments to which we have not the time to allude at all. The best evidence of the estimation in which it was held is the fact, that so many people could be kept together under the most intense and absorbing interest until past 11 o'clock. The next lecture of the course will be given on Thursday evening, April 3d.

Cause of Rust in Iron.—The study of that often-observed and unfortunate property which iron possesses of rusting or becoming oxidized when exposed to the action of moist air, has given rise to a variety of theories respecting the part that air and water each play in the operation. Mr. Von Hutton has made some experiments which lead him to conclude that the oxygen of the air cannot cause the rusting of iron unless dissolved in the water which is in contact with the iron. Even carbonic acid, when dissolved in water, will produce rust, which dry carbonic acid will not do. Rust, he thinks, is sometimes due to the decomposition of water, but that this never begins to take place until, for some other reason, the iron has begun to rust, or when the iron contains some other metal with which it forms a galvanic current. Solutions of alkalies prevent iron immersed in them from rusting, until the oxygen of the air dissolved in them penetrates to the iron, and this takes place more slowly in alkalies than with pure water. Alkaline solutions protect iron from the action of carbonic acid until all the alkali has been converted into a bicarbonate, and then if the solution takes up still more carbonic acid, is able to attack the iron. The same authority, in discussing the protection of iron by contact with an electro-positive element, states that his observations have not shown any essential advantage to be gained in that matter.—*Sci. Am.*

Electricity.—When a rod of glass is rubbed with dry silk, vitreous or positive electricity is generated, which always flows to the north. When a rod of sealing wax is rubbed with dry flannel, resinous or negative electricity is produced, which always flows to the south. Then two kinds of electricity, though practically similar in capacity and character, are, nevertheless, opposite and mutually antagonistic in all their factions and effects. They combine, however, and harmoniously affiliate to establish an equilibrium between themselves, and they would forever exist in that state, if every other form of force was at rest. Friction upon glass, as we have already seen, evolves the one, and friction upon sealing wax evolves the other; but in neither case at the expense of either of the substances employed as a means of friction. The electricity is merely a conversion of the force employed into that agent. This is all that is known of the essence or origin of electricity.

Matter and Space.—However vast space may be, matter must be circumscribed within it, like water within a lake. Hence matter is limited, while space is illimitable. Outside of matter is a limitless void—absolute space—nothing. Space is absolutely an illimitable wild, within which suns, and planets, and moons push and pull, and rush and roll aronnd each other, for the accomplishment of the wonderful ends for which they were created.

Farmers in Council.

Farmers' Club of Sacramento.

The Club met on Saturday, March 22, Vice-President Aiken presiding. After the reading and approval of the minutes of the last meeting, the Secretary said he thought an apology was due from him to the club for his long absence from his post, and stated that his private business had been so urgent that it had been impossible for him to attend the meetings for the past month, and as there was a small salary attached to his office he proposed to refund that salary during his absence to the Club.

On motion, the apology was unanimously accepted.

Patrons of Husbandry.

The committee appointed some time since to consider the propriety of organizing a grange of the Patrons of Husbandry in Sacramento reported favorable to such organization as soon as practicable, and urged as reason for such step the necessity of privacy in the transaction of their business and a more effectual organization. The report was adopted.

Election of Delegates

To the meeting of the State Farmers' Union, to be held on the 9th day of April next, at San Francisco, was called up, and on motion, the Club went into an election with the following result: W. S. Manlove, E. F. Aiken, Amos Adams, H. M. Larue, C. H. Hoit, R. S. Lockett, James Rutter and A. S. Greenlaw. All those elected except Manlove, were present, and expressed a determination to attend the meetings.

Colonel Warren, of the *California Farmer*, and W. Wadsworth, of the Rural Press, being present, were, on motion, each invited to address the Club, and each responded in appropriate remarks, the latter particularly complimenting the Club for the able manner in which all its discussions were conducted.

Co-Operative Winery.

Amos Adams, Chairman of the Committee to whom the above subject was referred, made the following report:

Sacramento Farmers' Club:

Gentlemen: The Committee to solicit donations of land and money for the location of the contemplated co-operative Winery would report that Mr. F. W. Redding, for himself and Mrs. Marshall and Mr. Grant, will donate three acres of land at Brighton. Mr. T. H. Perkins will donate three acres of land one mile east of Brighton. Mr. Ladd proposed to devote five acres of land one mile south of Brighton junction. Mr. Rutter, on behalf of the people of Florin, will give five acres of land A. Adams proposed to give five acres of land, and Mr. Schell offers to give half a block of land on K and Twenty-sixth street.

The committee will submit the following resolution:

Resolved, That the question of location be referred to Board of Directors of the Co-operative Winery, for them to make a final selection. Amos Adams, for Committee.

Sacramento, March 22, 1873.

The committee on incorporation of a co-operative winery reported articles of incorporation and by-laws. The name of the corporation is to be the Sacramento Coöperative Winery; its object the manufacture of grapes into wines and brandies; its place of business Sacramento city. The corporation is for forty-nine years and eleven months. The Directors named for the first year are: W. S. Manlove, James Rutter, R. S. Lockett, Amos Adams, J. R. Johnston. The capital stock is $100,000, divided into ten thousand shares of $100 each.

The by-laws among other things provide that each stockholder shall be entitled to one vote for each share of stock owned, free of delinquency up to ten shares, and one vote for each ten shares in excess of the first ten. A proxy may vote for his principal at all regular meeting, but must file his right to do so with the Secretary at least ten days previous to such meeting, and prior to called meetings five days.

The officers shall consist of a President, Vice-President, Secretary, Treasurer and four Directors, the President and Directors to be elected by the stockholders at their annual meetings—the Vice-President, Treasurer and Secretary by the Board of Directors. The Board shall also elect a Superintendent and define his duties.

Subscription must be payable in gold coin, or grapes, or both; if in grapes, at the market price at the time of delivery, the Superintendent to classify all grapes so received as subscription as to quality, before the subscriber to receive credit therefor.

No officers, except the Superintendent and Secretary, to receive a salary for services, and the salaries of these officers to be fixed by the Board of Directors. The Board of Directors shall hold monthly meetings on the first Tuesday of each month, and special meetings may be called by the President.

The reports of committees were both received and placed on file for further consideration at the next meeting; and the club adjourned one week.—*Daily Record.*

Calistoga Farmers' Club.

Club met March 15, President Bennett in the Chair.

The Secretary pro tem. was ordered to give notice that delegates to the State Convention will be elected at the next general meeting.

The Secretary was instructed to acertain what sacks could be obtained for, and report at the next meeting.

The question of converting the Club into a Grange was discussed, and laid over until next meeting.

The Club spent some time in considering the propriety of erecting a warehouse for the storeage of their own grain.

Stanislaus Farmers' Club.

This Club met at Modesto March 15th when the following gentlemen were elected as Directors:—W. P. Crow, from Branch Township; C. Dorsey, Washington; John Murphy and John Fox, at large.

Notice was given that the State Farmers' Union, met at San Francisco, April 9, 1873. On motion, proceeded to elect delegates to the said Union, as follows: R. R. Warder, John Murphy, J. R. Briggs, Geo. Turner, F. C. St-Clair, W. B. Wood, C. J. Cressey, L. Dickey, L. B. Walthall, J. W. A. Wright and R. B. Smith.

The Directors were instructed to report, at the next regular meeting, by-laws for a Co-operative Incorporation.

Meeting on the 22d inst.

We learn that a very enthusiastic meeting of this Club was held on Saturday last at which it was voted to organize

A Farmer's Saving and Loan Society.

It is designed that all the stock shall be held within the county, and the loans confined within the same boundaries. It was decided that the capital stock of the bank should be placed at $250,000. Over $100,000 was subcribed on the spot—five men taking $50,000 of hat amount.

San Joaquin Farmers' Club.

Owing to the meeting and time occupied by the Farmers' Coöperative Union Association on Saturday the 15th—the proceedings of which will be found in another column—the farmers' Club did not convene until 4 o'clock P. M. But little business was transacted. The Chairman read a communication from a farmer residing in the southern part of the valley, explaining a proposition which had been made by a San Francisco firm to furnish sacks. Said firm had offered to furnish eighty thousand good, second-hand sacks, now en route from Liverpool, for 9¼ cents apiece.

A member of the firm referred to left San Francisco on the 15th, for Liverpool, and expects to visit the sack factories of Scotland shortly after his arrival in Great Britain, and will telegraph back what arrangements for the purchase of sacks he can make at headquarters. The writer states that the gentleman referred to represents a firm with a capital of fifteen millions of dollars, and the writer thinks that, through him, the farmers can obtain all the money they want at four per cent. per annum. The Club took no action on the communication. After a few minutes spent in general consultation, the Club adjourned.—*Stockton Independent.*

Waterford Farmers' Club.

At the meeting of the Branch Township Farmers' Club at Waterford, Stanislaus county, on the 9th instant, the President gave a concise statement of the advancement of farmers throughout the State in the formation of clubs for self defense. He explained the co-operative steps taken at the meeting of the San Joaquin Club, and also the design of the Stanislaus Central club, at Modesto. Thirteen new members were added to the roll.

The Sack Committee read before the club the State Union's Circular, relating to the steps taken by that body to procure sacks for the coming wheat crop.

Notice was given that at the next meeting delegates would be chosen to attend the State Union which meets at San Francisco, April 9th.

A resolution was passed instructing Director W. P. Grove to present the sack question to the Central Club and ask for immediate action; and that he present to said Club the steps taken in this, and the communications now before this club.

After agreeing to accept the question of "Incorporation" for discussion at the next meeting, the Club adjourned to meet on Saturday, March 22d.

Farmers' Club of San Gabriel.

Pursuant to notice, a goodly number of the residents of El Monto and vicinity met at W. L. Jones' Hotel, El Monte, in Los Angeles county, on Saturday, the 8th instant, and took initiatory steps towards an organization for the "Promotion and protection of farmers' interests." Gen. Stoneman's remarks, on taking the chair, were listened to with great interest. G. H. Peck, Secretary, and Messrs. Hannon, A. Rowland and Quinn, also addressed the meeting.

The association resolved itself into a club and assumed the name of "The Farmers' Club of San Gabriel Valley."

As the gathering was preliminary only, and many others were expected to join, organization and election of officers were postponed until the next meeting—to be held at the same place at 5 o'clock P. M., on Saturday, the 22d of March. All farmers are invited to be present.

Farmers' Club at Davisville.

A meeting has been called at Davisville to meet this day (March 29.) for the purpose of organizing a Farmers' Club. We trust the farmers about Davisville will attend to this matter and thereby look to their own interest.

Yolo Farmers' Club.

At the meeting, March 15th, the discussion of the Sack question being the order for the day, W. M. Jackson, F. S. Freeman, and other members of the Club made some very practical and useful remarks.

A committee of four, consisting of W. M. Jackson, J. A. Hutton, S. P. Pond and F. S. Freeman was appointed to ascertain the best terms on which sacks can be obtained and report at the next meeting.

The question of "Storage of Grain" was proposed by W. M. Jackson for discussion at the next regular meeting, and carried.

D. Schindler, Sec'y.

Sutter County Farmers' Club.

Club met March 1st and organized by electing S. E. Wilson President, B. F. Walton, Secretary, and George Ohleyer Treasurer, and appointed said officers a committee to draw up articles of incorporation and by-laws. On the 14th instant met again and received the report of their committee, after reading which the question of including insurance was discussed at some length as a very important measure to be included if practicable.

As a necessary preliminary to a full organization, and the transaction of further business, a number of subscribers to the capital stock of the association paid in their ten per cent., when the club adjourned to meet again to-day, (Saturday, March 29th).

Farmer's Club for Walla Walla, W. T.

The farmers and Horticulturists of Walla Walla Co. Washington Territory organized a Farmers' Club on the 22d ultimo, adopted a Constitution, set of By-Laws, etc., and made choice of the following officers for the ensuing year:—J. W. McGee, President; H. Bateman, Vice-President; F. M. Dougherty, Secretary, R. P. Olds, Treasurer. The club adjourned to meet Saturday, March 1st, at 1 o'clock, P. M.

Forest Culture

While on our last weekly tour after items, we visited the farm of our pioneer forest planter on this coast, Mr. James T. Stratton, about two miles north east of this town, and were surprised at the astonishing growth the trees on his Eucalyptus Plantation have made during the past year. We have referred briefly to this enterprise several times, but as forest planting is largely engaging the attention of our farmers at the present time, and indeed of all who feel interested in the future welfare of our State, we think a more extended description of it would be interesting to our readers.

Until the practicability of forest culture was demonstrated by Mr. Stratton the opinion was generally entertained that we would always be compelled to depend entirely on distant points for our supply of the hard woods. The example which has thus been set will be worth millions to our State, and already we hear of several capitalists who are contemplating a like venture on a large scale. We learned from Mr. Stratton that his intention was first directed to the subject of forest culture in 1869, while observing the wonderful growth of the Eucalyptus or Australian Gum tree at his residence in Oakland, and having in April of that year secured all the seed he could obtain from them he immediately planted them in a nursery and succeeded in raising about 40,000 young trees; about 30,000 of which he planted in November and December of that year in a permanent plantation, 8 feet apart each way, covering about 54 acres. These were all the variety Eucalyptus Globulus or Blue Gum of Tasmania, are now generally 35 to 40 feet high and from 5 to 9 inches in diameter 2 feet from the ground.

In the spring of 1871 he planted about 50,000 more Blue Gum, covering about 60 acres; choosing for this planting a high hill, the soil of which is quite sandy and is classed, by farmers, among the poorest soils in this vicinity. Every one predicted a complete failure in this field and old practical farmers were inclined to question the judgment of their new competitor for agricultural honors, but the result shows that he acted wisely, as the trees are perfectly at home, and are making a growth nearly equal to that of the first planting, which was on rich valley land. A month ago these trees were from 12 to 25 feet high and 2 to 4 inches in diameter, but the proprietor has recently had them cut back to 10 feet to prevent them from becoming top heavy and hence liable to be blown down when the ground becomes soft during our long rains. In the spring of 1872 he added to the hill 20,000 more trees of various varieties—Blue Gum, Red Gum, Iron Bark, Stringy Bark, &c., all of which are doing well and looking as healthy as if they were growing on their native Australian hills.

Since the enterprise was started the medical value of the tree has been discovered, and the hospital experiments that have been made by Dr. J. S. Coleman in San Francisco indicate that the extract of its medicinal properties is doubtless destined to become a valuable substitute for quinine as an anti-periodic tonic and febrifuge, and that it is an invaluable remedy in diseases of the kidneys, bladder, &c. So abundant is the active medicinal principle in the leaves of this tree, as determined by Dr. Coleman's experiments that should quinine be entirely supplanted by the new remedy, Mr. Stratton estimates that his Eucalyptus forest alone could supply the demand for the whole United States.

As we have stated the trees of the first planting are 8 feet apart, those subsequently planted being 6 by 8 feet apart. It is intended to begin to cut out the poorer and scrubby trees when they are about five years old, and a second cutting about two years later, leaving about 150 on an acre to remain for timber. These earlier cuttings will only be useful for fuel, but will pay all the previous cost of the enterprise.

He expects to begin cutting for timber at 10 years from the seed and thinks that he will then be able to show clear logs 12 feet long and 15 inches in diameter, worth at least $5 in the tree and that in 20 years he will have trees 100 feet high and 2 feet in diameter, and from our own observations on the growth of these trees in different localities we believe his expectations will be realized.—*Alameda County Advocate*

Culture of Tobacco.

Tobacco culture in connection with its manipulation into forms and conditions, desirable and convenient for the purposes of chewing, smoking and snuffing, stands among the foremost of the largely paying industries of many nations; anything therefore that we can do to increase the quantity and quality of the article should be the aim of culturists.

It is now pretty nearly a well established fact, that California grown tobacco when properly cured and fitted for the cigar manufacturer is equal to any the world affords. The operations of the American Tobacco Company and the Pacific Tobacco Manufacturing Company in connection with the knowledge of the granting of patents to J. D. Culp, Esq., of California, for certain methods of curing tobacco that insures its superior quality, has stirred up an interest in its production that has no previous parallel in the history of its culture here.

In response to unnumberless inquiries, William L. Hoover, Secretary of the companies above named, has embodied in the form of a circular numerous facts relating to the growth and quality of California grown tobacco from which we make the following extracts:

"We claim for California three important advantages over other States in the production of tobacco, which must, in the immediate future, place her in the van in this industry.

The First is Climate.

Our climate, world-renowned for its mildness and geniality, is especially adapted to the growth as well as to the manufacture of tobacco. The rain falling during the winter and spring thoroughly saturates the ground, and leaves moisture enough to complete the growth of the plant, while the summer and fall weather is warm and dry, and no rain fall ever interferes with the cutting or curing of the crop. The frosts that come do not interfere with planting the seed at any time during the winter, the slightest covering over the beds affording ample protection against its attacks. This year our two companies had more than half their beds sown in January. The evenness and warmth of our summer and fall atmosphere greatly facilitates the curing of the plant, and a certain crop, and one uniform as to quality, is assured one year to another.

The Second Advantage is Soil.

The soil in this State is almost virgin, and we have hundreds of thousands of acres of choice tobacco lands untouched by the plow, which are not excelled in any part of the world for richness and fertility. Mr. Culp has grown tobacco in one field in Gilroy Valley for twelve successive years, during which time he used no manures, never failed in obtaining a fine crop, and the last one was as abundant and of as fine quality as the first, and the field is apparently as productive to-day as when the plow first turned it over; and it is but a fair sample of our bottom lands and alluvial soil. Another generation will occupy our places before the choice lands of the State will require manures.

The Third Advantage is

Immunity from the tobacco worm. The yellow jacket is the faithful ally of the tobacco grower in Santa Clara Valley, and we believe, throughout the State, and he so carefully scrutinizes the plants for tobacco worms (which he immediately kills when found) that scarcely one escapes his vigilance; and Mr. Culp, in fifteen years experience in growing tobacco in this valley, has never expended one dollar for labor to destroy the worm.

Thus it will be seen that a much larger yield of tobacco can be obtained in this State than elsewhere, and that the cost of manures and killing the tobacco worm—the two heaviest charges tobacco growers have to meet in other States—here do not enter into the expense account at all."

We learn that the new crop from seed, is being now transplanted from the seed-beds; that on Monday next 40 hands will be thus employed by the agent of the company.

Agricultural Notes.

CALIFORNIA.

BUTTE.

Enterprise, March 21: Extraordinary Growth.—Yesterday we were presented by Mr. Fred Stryker with a bunch of wild oats, in full bloom, measuring seven feet in hight. It was extracted from the Benner ranch on Dry creek, near Wick's on the 7th of March. What section can beat the foothills of Butte county.

Imposition and oppression has at length bronght the farmer to his senses, and as the passing years demonstrate accumulated wrongs —evils increasing with the lapse of time—as he becomes oonsoious of his constrained and circumscribed condition, he is seeking for the rsmedy by which he may be enabled to maintain himself in the fierce struggle waged for the supremacy of individual rights and interests.

"Combination" is now his watchword and reply. California has but made a beginning. In some of the most populous counties clubs have been formed. A State Farmers' Union has been established. We lack the co-operative effect, which only resnlts from entire union.

Each county in the State, wherever agriculture has a footing, must organize a club, and every farmer in the community should become a member. We must have one grand head, the "State Farmer's Union," and securing to the several districts the proper representation, we must be prepared to lend our efforts and means to the accomplishment of its acts.

CALAVERAS COUNTY.

Chronicle, March 22: Weather.—The weather continues very pleasant. The skies are cloudless and the atmosphere balmy and invigorating. Under the influence of the revivifying sunshine the earth is fairly teeming with vegetable life. The hills are covered with verdure, cultivated fields are carpeted with emerald, fruit trees are laden with parti-colored blossoms and the modest wild flowers add their fragrance to the nniversal evidence of advancing spring. Grass is already snfficiently grown to afford good grazing and the grain crop looks unexceptionably promising. In fact, the prospects for a fruitful season are bright, and without the intervention of some untoward event the year 1873 will be more prosperous than any of its predecessors.

Dry.—We are informed by ranchers residing in the lower range of foot-hills that more rain is needed. The earth is becoming quite dry, and clayey soil has commenced baking. The clerk of the weather will please take notice.

COLUSA.

Sun, March 22: Mountain Sheep—Will They Cross?—It has been a question among wool growers as to whether a cross could be effected between the Mountain and domestic sheep. Mr. A. S. McWilliams, an old and experienced wool grower of this county, entertained a like doubt, but he informs us that all this has been removed from his mind, as during the past season in Steptoe Valley, in the eastern part of the State of Nevada, a Rocky Mountain buck came among his sheep, and the increase gave evidence that a cross could be effected, leaving no doubt as to the matter. One of the progeny of this buck still continued with another band, and brought forth increase. This buck resembles a large goat, with immense horns. This will set at rest the long disputed question concerning the cross of mountain with domestic sheep.

Improved Sheep Shears.—A. S. McWilliams of this connty, has made an improvement in sheap shears which will undoubtedly come into general use, and prove of great advantage to shearers. The improvement consists of a flange for the protection of the thumb and one for the fingers, enabling the operator to hold the shears firm, without damage or inconvenience to the hand. We have seen a pair with the improvement added, the mechanical skill of Jacob Weaver, which shows most excellent workmanship, and the utility is plainly indicated to the most casual observer. It is the intention of Mr. McWilliams to apply for a patent.

LAKE.

Bee, March 22: The pleasant weather we have been enjoying here for the past week, can scaroely be surpassed in any part of the State. It is said that spring is generally a little backward here, as compared with Sonoma and other counties; but at present the signs of its rapid advance are visible on every hand. Grass and grain are rapidly growing, and the season of blossoms and flowers is at hand. Farmers have every prospect of success in their operations this year.

Scarcity of Lumber.—There are six saw mills in Lake county, four of which are situated at the south end of the Lake and two at the north side. Still the supply of lumber here for building purposes is not equal to the demand. It is said that the pineries of the county are of limited extent, yet we are told that there is a splendid forest of sugar pine beyond the north end of the Lake, which yet remains untouched. The utilization of this forest is an immediate necessity, and offers a paying investment for capital. We hope to note ere the end of this year the establishment of good lumber yards in the different towns of the county, and that people who want to build will not be kept back by the scarcity of material.

MARIN.

Journal, March 20: We took a run over to Nicasio, St. Patrick's day. For several miles from San Rafael the road is a faultless one, turnpiked, macadamized, hard and smooth. As you ascend White's Hill, one of the great works being prosecuted by the North Pacific Coast Railroad Company is seen to great advantage. Across the ravine from the wagon road, and belting the western declivity of the hill, runs the line of iron road, marked alike by the fresh cuts in each of the bolder projections, and the busy gangs of men with picks, shovels and wheelbarrows.

Passing on, the redwoods are soon entered, through which the wheeling is very hard, and requires two horses to a light buggy. In fact the twelve miles between San Rafael and Nicasio cannot be made with comfort by one horse without several hours' time. The road, though for the most part a good one, is still a hard one to travel. The lands through which it leads are among the richest grazing soils to be found in the State. They are now covered with a fine growth of feed, yet the cattle on them are lean. We cannot resist the conviction that they are overstocked, and that dairymen snstain a loss in quantity and quality thereby. Better two-thirds or three-fourths of the number well feed and fat. We are led to wonder that so few houses or homesteads of any kind appeared along the road; but a gentleman told us there were several which were situated a little off the thoroughfare, secluded from view.

Nicasio is a pretty spot. The village lies in a larger level place than is to be met with between it and this point, but of irregular shape, and it is not easy to estimate its area. It is completely environed with hills, has a fine hotel, a beautiful school house, a very pretty Catholic church, a store, saloon, blacksmith shop, and several large dwelling houses, mostly the homes of wealthy dairymen. Its climate is very attractive, and during the summer months it is the resort of numerous families who are attracted by its quiet and natural beauty.

The grass is excelleut about Nicasio, and there is every promise of an abundant and profitable dairy season.

MERCED.

Tribune, March 22: Killing Squirrels.—This being the month generally allotted to the killing of sqnirrels, our farmers may be interested to read the manner in which Mr. Thompson of Santa Barbara disposes of these troublesome pests. He takes with him an old tea kettle, and a large 'man bellows,' to which he had attached about a yard of gutta-percha hose.

On reaching a squirrel burrow, where a colony had evidently settled, he set his machine down, thrust the end of the hose into one of the numerous squirrel holes, threw some shavings, cobs, and sulphur in the tea kettle, struck a match, set the shavings on fire, caught hold of the bellows, and in a moment the sight and smell suggested another fire and brimstone region, for the earth all around began to send up puffs of yellow and infernal-looking smoke wherever a squirrel had run his nnderground road.

The precaution had been taken to cover all the holes with earth before the smoke was forced into the burrow. In one instance the smoke rushed out of a hole over thirty feet from the main entrance of the nest.

It takes about five minutes to smother a whole colony of these troublesome pests and they never show any signs of life again, the holes remain closed and nndisturbed. The work of extermination is complete, and is accomplished at a trifling cost. A multitude of squirrels, can thus be destroyed by one man in a single day.

Crops.—Crops in this vicinity are looking splendid—particnlarly along Mariposa and Bear Creeks.

Considerable land is being summer-fallowed in this vicinity.

NAPA.

Reporter. March 22. — Fish: Commissioner Stone, in charge of the hatching-houses, etc., on Kelsey creek, Lake County, a short time ago, received the long-expected 500,000 white fish eggs from the East. But unfortnnately they had been packed badly, and were spoiled. He expects another consignment in a few days of 100,000 eggs.

PLACER.

Herald, March 22: Advanced Season.—The Placer Brewery folks were mowing their first crop of hay on Wednesday, the 19th of March, in a small field in Auburn. It is barley, and had reached a hight of some three feet. The ground is rich, and will send up one or two more crops this season, before the moisture is all gone. We guess this pole will knock the persimmons in the hay line in this section. But all crops in this part of the country are advanced, and look finely for this season of the year.

Argus: Warm and Pleasant.—During the past week we have been favored with warm and pleasant weather. Just such weather as was needed, and such as will be appreciated by both farmers and miners. From the farming portion of the county comes the oheering news that the crops are all in fine condition, and give token of an abundant harvest, and from the mining section comes equally as good news. The miners have all got to work and have plenty of water.

SAN BERNARDINO.

Guardian, March 15: The Pacific Rural Press of March 8th copies its "Agricultural Notes" on this county entirely and verbatim from items in the *Guardian* yet gives no credit, which is hardly fair, especially since all other papers are mentioned.

We admit that the 12 lines which appeared in our "Agricultural Notes," March 8th, were without credit to the *Guardian*, and the same happened to the notes taken from some paper in Merced county in the same number. But the Merced paper has made no mention of the very small and unintentional omission.

SANTA CLARA.

Gilroy *Advocate*, March 22.—The Weather. This week has been characterized by as pleasaut weather as one could wish to have. While we read that in some parts of Maine the snow still covers the telegraph poles, here we are enjoying a balmy spring temperature. Though perhaps a little uncomfortably warm in the middle of the day, the mornings and evenings are delicious, and the fresh air, filled with the sweet perfume of opening flowers and blossoms, together with the rich bright verduro on all side, makes it exceedingly pleasant to be abroad.

SANTA CRUZ.

Sentinel, March 22: Large Salmon.—We are informed that a large salmon was fonnd on the Aptos bar, stranded, that weighed fifty ponnds. Salmon are now running up all the small streams. During the past week some native Californians caught several in the north fork of the Branciforte Creek.

Wild Pigeons.—These fine game birds are very plentiful in the Aptos region, and are killed by hundreds. So numerons are they, that farmers are greatly troubled on acconnt of their eating the seed grain, found uncovered in the fields.

SAN LUIS OBISPO.

Tribune, March 15: The Weather.—Were we possessed of the divine poetic aflatus we would compose a poem, wherein might be adequately described the beauty of the weather with which we have lately been blessed. A line in our dull prosaic manner must, however, suffice to remark that during our experience for the last four years we have never remembered such a glorious reign of fine, genial, productive and temperate weather as we have had for the last week or two.

All around and about us the earth seems covered with a perfect carpet of verdure; our yonng crops are springing forth with elasticity and vigor; we are un-cursed with worms such as half ruined us last year; and, altogether, we have every reasonable hope in believing that our ingathering this year will be a greater and more prolific one than we have ever before enjoyed.

SONOMA.

Russian River Flag, March 20: Farmers' Clubs.—The third Farmers' Club in this county has been organized in Alexander Valley with Charles Alexander as its President. The farmers in that fruitful valley have set a good example to those living around Healdsburg, but whether it will be followed or not is another question.

Weather.—The weather of late has been very warm and spring-like, vegetation is springing forward rapidly; crops are looking finely; farmers are busy preparing the ground for summer crops and the town is dull in consequence. The dullness can be borne because the prospects are so good for a bountiful harvest.

SACRAMENTO.

Folsom Telegraph, March 22: Eggs are plenty and cheap in this vicinity—butter also; and spring vegetables are coming in. The grass is fine and cattle and sheep are doing well on the hills. Wheat looks splendid and with a little more rain and no sirocco northers to blast, the crop will be all that the farmer can desire.

A Good Sign.—A large number of ranchers in this vicinity are proving up and paying for their land, while others are filing on government land and making settlement. Land is also gradually increasing in price and becoming more valuable for stock and grazing purposes.

Sac. Record, March 24: Australia as a Competitor.—The rapid progress of development in Australia is strikingly illustrated by the fact that the wheat crop of that continent, now ripe for harvesting will give, it is estimated, a surplus of 200,000 tons, available for export, and which, of course, will find its market in England. The special significance of this is, that in quality and character the Australian wheat is substantially the same as that of California; the country presents a field for its production rivaling that of California.

The population from whence labor for this purpose can be drawn, is four times greater than that of California. The cost of freighting from Australia to England is little more than half the cost from California, while the amount of tonnage available for the purpose is much greater. There is no reason why the surplus of Australian wheat available for the English market should not within two or three years equal the present surplus of California. What effect this would have on the profits of California wheat growing, is not easy to estimate, but the facts of the situation as already developed deserve thoughtful consideration.

TUOLUMNE.

Independent, March 22: Frost and the Coffee Plant.—In an item of the 8th inst., in speaking of the coffee plant in California we stated that frost was fatal to its growth. We are pleased to learn from Mr. Fisher, the gentleman who has raised it in this county, that such is not the case. Our friends who have copied the article will please make the correction. Mr. Fisher says that parties should be careful in preparing ground, as that which is most dangerous to the plant is an insect resembling the potato worm, which he no doubt introduced in enriching the soil with old manure.

Shipping Tuolumne Wine East.—P. M. Trask & Bro., of Columbia, are shipping some of their fine wines to New York and Chicago. They sent off 400 gallons a few days since, and have about 8,000 gallons left. From samples furnished, they are assured it will bring $2 per gallon in the Eastern market.

TEHAMA.

Sentinel, March 22: The weather is warm and delightful in the extreme. The trees and shrubbery everywhere in this vicinity are clothed in a green and spring-like attire, the hills and valleys teeming with variegated flowers—the oderiferous fragrance of which is delightfully pleasant to the olfactory organ—and the crops present an appearance which suggests a more bountiful harvest than for many years heretofore.

TULARE.

Delta, March 22: Our County.—We have had occasion during the past week to make a journey towards the great lake in the southwest. For miles, where there is neither fence nor house to be seen, we rode through fields of rich natural clover, presenting the richest and most beautiful meadows in the world. Vast bands of horses, cattle and sheep, were lost in the great expanse.

Sometimes houses and fences were so distant as not to be visible in any direction, over the level plain. Yet all this beanty and richness lays out of doors unclaimed, and within twenty miles of the great broad-gauge overland railroad. A few years, however will settle the question.

We called at the house of a yonng couple who, with another couple equally as juvenile, have just settled in the clover field. Their cottages, close together, have bnt one other house in sight. They have a rauge which is a fortune in itself; and will have become rich from their sheep, before it is curtailed by settlement.

No earthly paradise could be more beautiful than theirs. The snowy mountains are in sight, with promise of cooling night zephyrs, and good health. The lake is within six miles, crowded with fish and game. A little stream runs close to them. Timber is within a mile or two; and on every side the richest pasturage, and above all, a climate in which they might camp out forever without suffering or inconvenience. "Talk about going to heaven!" said one of these young men, not as long as we can stay here.

Cotton.—J. T. Milsaps has set up a cotton gin on Kern River, and is now engaged in preparing cotton raised in that vicinity last season, for market.

YUBA.

Appeal, March 22: The Grain Crops.—The crops in Yuba and Sutter counties are looking very fine. Summer fallowed grain is from eight to ten inches high, and the early-sowed is looking nearly as well. Some of the farmers fear the straw will be too stout, and that it will lodge badly before ripening.

OREGON.

Oregonian March 22: The Linn County Farmers.—The meeting of Farmer's Linn county, held at Albany last Saturday, elected officers as follows:

For President, Judge Barber; Vice-President; James Finlayson; Secretary, A. W. Standard; Corresponding Secretary, J. H. Smith.

The Committee on Resolutions reported as follows:

Resolved, That we cordially indorse the proposition as contained in the call for the State Convention of Farmers, to be held at Salem on April 10th, 1873.

Resolved, That we hail with nnbounded pleasure the news that reaches us from different quarters of the State of the organization of Farmers' Clubs for their mutual protection.

Resolved, That we implore our brethern throughout the State to proceed at once to organize Farmers' Clubs in those portions of the State where such organizations do not exist.

Resolved, That it is manifestly to the interests of the farmers to build their own warehouses and to hold their produce in their own possession until sold.

Resolved, That we as farmers do not propose to make war upon or interfere with the interest of any business man or men, but simply to protect ourselves.

Resolved, That we tender our sincere thanks to the editors of those papers who have given us aid and comfort by publishing letters, notices and other matter that have tended to the furthering of our interest, and we consider it our duty to give them our patronage and support.

The resolutions were unanimously adopted, speeches were made by Messrs. John Henry Smith, James Finlayson, Philip Low, of Linn county, and Capt. J. H. D. Gray, of Clatsop. The *Register* says: "The meeting was largely attended, and great harmony and much enthusiasm prevailed. The tangible results are yet to be seen. United action is now the need."

Farming Items.—The Corvallis *Gazette* says the farmers up the valley are again plowing, and everything foretokens an early Spring.

An effort is being made by the citizens of Seattle to have the Western Washington Industrial Association hold its next annual Fair at that place.

The Baker City *Democrat* says there is no disease among the horses of that county or of Eastern Oregon, nor has there been during the winter.

Manna and Honey-Dew.

A paper upon the above subject was read hefore the Academy of Scieuces, at their session, on the 3d inst.,—the paper was hased on obser-vations made hy Mr. John Applegate, a farmer long resident in the San Joaqnin valley.

Mr. Applegate is of the opinion that both manna and honey-dew deseend from the heavens, like frost or mist, and that both are derived from the sweet aroma of wild flowers, which is carried up by the rarified atmosphere, and suhsequently condensed and deposited like dew. A portion — the finer, dryer, and lighter particles—may be carried to a higher elevation, and into a cooler atmosphere, where it might condense more in the form of snow, falling in little pellets, as manna. He accounts for the appearance of these deposits in the fall, so long after the great mass of the flowers have disappeared, hy snpposing the sweet principle to be held in suspension in the atmosphere for a long time, drifting hut slowly from the place of its origin. This theory would hardly be admissiblo, cousidering that the high winds of summer, in this latitude, and the farthor fact that they come mostly from the ocean—a surface from whieh we can hardly expect mnch sweet honey-produciug aroma to asceud.

Mr. A. alludes to the fact that while the honey-dew never fails to come in the fall, the appearance of manua is rare. He mentions only two seasons in which he has ohserved it—in the fall of 1861 (or '62) and that of 1872. It is noticeable that on both occasions its appearance followed immediately after summers of immense verdure. It appears only on the mornings of the first cool weather in the fall, and covers the foliage and fences somewhat like frost—in the form of small, rouudish, whitish grains or particles, qnite sweet to the taste, and corresponding very closely with the description in Exodus of the manna upon which the Israelites subsisted during their sojourn in the wilderness; the honey-dew closely resembles that described by Josephus as descending upon the hands of Moses—stieky and sweet. The houey-dew is the sweetest of the two; but it has a ranker taste than the manua, and not so agreeable.

Mr. Applegate also alluded to the peculiarity connected with the collection aud stoiing of this substance by the honey-hee. The bees collect hoth, and the comb-cells are found filled with both suhstances, when they are obtainable. The honey and manna, however, are never fonnd in the same cells. The two snbstances are found in separate cells; hut not promiscuously mixed. The cells so filled are found to occupy groups.

The qnestion of the origin of the honey-dew and manna, is one which has never yet beeu satisfactorily settlcd. The objections to the above theory are mauifest; but the difficulties in the way of attribnting it to an exudation or deposit from insects is still greater. The honey-dew, when it occurs, is found covering all surrounding objects for miles. Trees, shrubs, grass, fences, and even the bare earth, aro completely covered with it. Even the dry leaves upon the ground are so covercd with the sticky substance, that they adhere to the soles of the boots to such an extent as to make its presence very uncomfortahle.

It is impossible that it conld be deposited in such abundance hy the iusect referred to, as oftentimes hut few of the insects—a large species of the Aphis family—can be fonnd; sometimes not at all, for long intervals.

We have at this office some specimens of the insect above referred to, preserved in alcohol; also some of the honey-dew, slightly dilnted with water, in order to render it sufficiently limpid to be transferred to a vial. These specimens were furnished a year ago last fall, by Mr. Frank Carnana, of Grass Valley, and noticed by us at the time.

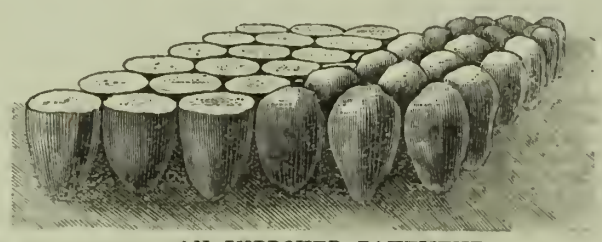
Grain Sacks.—The Farmers' Club of Stanislaus county, lately appointed a committee to negotiate for the purchase of sacks, and an agent has been dispatched to England to purchase. The committee have made a report of their operations to the Cluh, in which they say: "And further, your committee would state they soon expect to he able to aunounce, by cable dispatch, as to the price of wheat sacks, au agent having gone direct to headquarters to engage not only for our Club, but for all the clubs in the State, that will report to the Secretary of the State Farmers' Uuion, and the commission of the same will scarcely be worth counting, as he seeks to have every sack returning to him full of grain for shipmeut by his chartered vessels."

The Mansard Roof in France is not looke l npon as at all dangerous in case of fires, from the fact that in that country, where the Mansard roof commences, the French builder corbels the hricks inside at each course. A receding front is thus obtained for the roof. The angles of the bricks on the outward face are smoothed over, and the slate is laid directly on the slooping hrick wall. The Mansard roof is as solid as any part of the house, of which it is the most elegant feature.

A New Style of Pavement.

The San Francisco Paving Company was incorporated in this city December 24th, 1872, the object heing to prodnce a cobble pavement, which, while retaining the durahility of the ancient cobhle, presents a smooth and level surface for earriage traffic. This the above named company have undonhtedly accomplished, hy the following method, viz: The cohbles, which are procured of as nearly a uniform size as possihle, are fed with mathematical precision to a machine which onts or clips one of the rounded ends of the stone, producing a level surface instead of a spherical one, which level snrface the proprietors say they have every reason to believe will be permanent.

The advantages of this pavement over the cobble now in use is at once apparent hy reference to the accompanying cnt. In mnddy weather no one with a hnmane heart can travel the streets of San Franciso without suffering a pang for the poor horse, who often drawing heavy loads, strnggle and slide over the slippery cohble stones to the great detriment of their feet and limhs. Possessors of valuable horses, omnihus companies, and in fact all owners of equines will view the abovo method of paving with sincere favor, and it is to be hoped that our Board of Supervisors will carefnlly inspect these stones, before authorizing any more oontracts. The officers of the company are Louis Duterhric, President; E. D. Sawyer, Treasnrer and A. E. Ball Secretary.



AN IMPROVED PAVEMENT.

The machine for clipping the stones is being built by Messrs. Martin & Co., and is now about completed.

Walter Brown & Son's Monthly Wool Circular for February.

The dullness of trade which prevailed at the beginning of February continued during the whole month. The quiet state of the Woolen Goods trade, and a feeling of distrust, both on the part of wool holders and mannfacturers, in regard to the futnre, have caused a decline in prices up to the present writing, of from 5 to 8 per cent. since our quotations of Feb. 1st. The auction sale in Boston during the early part of the month, of wools sooured from lots rescued from the recent fire, was the occasion of some competition among buyers; hut the activity of the ensuing week was shortlived, and was followed by a recurrence of the extreme dullness which has ruled so long. On the 13th the anction sales of Colouial Wools opened in Loudon, from which the wires soon brought us news of a decline of three halfpence, which was followed by later advices reporting a further decline. The result of this information on our own markets, was a couviction that further concessions in prices must be made here, to meet the views of manufacturers. At this last decline, considerable sales have been made of both Domestic and Foreign. The stock of desireable wools in the hands of Eastern dealers is not large, but so long as consumers pursue the present system of "hand to mouth" purchases, there is but little doubt that the supplies of raw material will be equal to the demaud. The recent tightening in monetary circles also combines with other influences to increase the unsettled and weak tone of the market. Further failnres among manufacturers have occurred during the month which tend to highten the distrust felt by Commission Houses in accepting risks.

Notwithstanding, however, the gloomy aspect which all woollen interests have lately worn, there is good reason to thiuk, now that the prices of raw material and manufactured products are, by the decline of the former, brought into more just relations, that the trade in both will be much more active, and that the coming month will exhibit more satisfactory results for all concerned.

Pulled wools of all descriptions have been much neglected during the past month, and show a greater decline than almost any other class. There is some accumulation of stock.

Texas wools have sympathized with the general depression, and are offering freely at reduced rates. A public sale of Texas wools took place on the 27th, at which 1,800 bales were sold at prices rangiug from 17¼ cents to 28 cents per pound.

California and Oregon wools have been generally quiet. Some considerable sales have been effected in choice lots of fall clip. Quotations have changed in correspondence with other wools.

Foreign wools at the decline have met with some inquiry. Several lots of Cape wools have been pressed on the market, and we hear of sales at very low figures.

More Burlap Mills Wanted.

The manufactnre of jnte into burlaps, and that of hnrlaps into grain bags, is destined to become one of our important industries. The nnmher of grain bags nsed on this coast, as far East as Salt Lake City, was last year not less than 25,000,000, representing 25,000,000 yards of hurlaps. This year it will be close upon 35,000,000, and every year the market will increase. The cost of manufacture in this city is as follows: Imported jute costs five cents per pound, and a ponnd of jnte makes a bag; therefore the raw material costs five cents per hag. Spinning, weaving and sewing oost a cent each. So that the whole cost of a wheat bag manufactnred in this city is eight ccnts. Add to this a cent for makers' profit, and the whole cost is nine cents.

The cost of importing wheat hags from Scotland to San Francisco is nearly sixteen cents each. Cheaper they cannot bo had without loss to the manufacturer. This is made np in the following manner: The cost of jute, of spinning, weaving and sewing in Dundee is about the same as in San Francisco; that is, eight cents. Add to this three-fonrths of a cent for profit, and the original cost of a wheat bag there is eight and three-fonrth cents. To this has to be added a dnty of 40 per cent., equal to three and seven-tenth cents, freight two cents, insurance one-fourth of a cent, aud commission half a cent, making the whole fifteen and sevententh cents. Thus there is a difference of six and seven-tenth cents iu favor of the local manufacturer, which the importer could uot hope to overcome. In fact, the owner of a bnrlap mill and bag factory might easily ohtain twelve cents for all the bags he could manufacture, and then he could uot be competed with on this coast, save in British Columbia, where, taking off the import duty, the price would be about the same as that of the Scotch manufactured article. He would thus have a profit on capital of fully fifty per cent.

We have estimated on this year's needs in the way of wheat bags; now, to mauufacture them all from the jute, we would requiro seventeen mills of the present capacity of the Oakland mill, and when it is considered that we would ultimately have open to us a market as far east as the Mississippi, it will be seen how important the future of this industry is likely to hecome.—*Bulletin.*

The American Fire Detector.

[From our N. Y. Correspondent—Albert Williams, Jr.]

This is a most ingenious contrivance for the detection and consequent prevention of destructive fires; for there hardly ever happens a fire which could not be redily extinguished in its incoption. The great tronhle has ever been that the fire is not discovered till under considerable headway; then it is a matter of great difficnlty to control it. In view of this any sure method of finding ont the fire and its exact location, instantly meets with a warm welcome. The "Detector," therefore, jnst fills a niche in our otherwise nearly perfect system of city fire departments; and where there are no engines, its protection is all the more necessary.

The only form of fire detector is that mado by the "American Fire Detector Co.," under a patent issued Aug. 29th, 1865, to Mr. Dion of New York. It has been strongly recommended by the Board of Fire Underwriters, and is being adopted in all the large hotels, tenement houses, public buildings, etc., of that city. It is required hy law to be placed in all tenement houses not provided with fire-escapes; and, in consequence of its less cost as well as intrinsic snperiority, is generally preferred to the escape.

The apparatns is quite simple. The detector and alarm are distinct from each other. To qnote the circular of the company:

"The fire detector in size and appearance resembles a small marine clock; the principle upon which the operation of this invention is based is that of the expansion of metals. " "

By means of a screw operatiug a haud npon the dial plate, a thermometric spring composed of two metals, is set to the degree it is desired that an alarm should be sounded. When the temperature reaches that degree, the compound spring is, by the action of the heat, raised sufficiently to set free a weight which trips a lever in its fall, releasing an npper lever to which is attached to the wire connecting the detector with the alarm. When in use, the detectors are attached to the walls near the ceilings, and the wire is carried thence, like an ordinary bell wire, to the indicator, annnnciator or alarm, which is operated by tripping levers, each held suspended by a wire connected with a detector, or a number of detectors, there heing one lever for each room or floor wherein the detector or detectors may have been placed."

The delicacy of the componnd spring thermometer is something remarkable. It is much more susceptible to sndden change than the ordinary mercury or spirit ones, as it is not enclosed in glass, hut perfectly open to the air. It is sometimes used in private houses to notify the hypercritical occupant when his fnrnace heat gets about the regulation, 68°. But for the actnal detection of fires the gauge is usually set in the nineties, to avoid false alarms. If set only two or three degrees above the temperature of the room, the lighting of a match or the animal heat of one or more persons will release the alarm.

Though this invention has heen in nse hnt a short time, it has already demonstrated its value; and, without a single failure to alarm, has prevented many fires. Strange to say, the detector is used in hot-honses, drying rooms, etc., almost as largely as for its original pnrpose.

Flax Culture.

We are asked if it is too late to sow flax; we say no. We have several other inquiries in regard to flax culture, which we answer fnlly in the following excellent article on the snbjeot by W. T. Armstrong, of Salinas City, in a late nnmher of the *Hollister Advance*, and it being California experience and advice, is worth more to us than volumns of Eastern books or practice, on the snbject.

As the cnltnie of flax is becoming one of the leading and profitable industrics of the Pacific Coast, and as the cultnre and harvesting may be of service and interest to those abont to commence the cultivation of flax. My experience extends over a number of years cultivating from 100 to 600 acres yearly. I am willing that others may profit by my experience, and for that reason I submit these

Hints.

There are a few old fogy ideas connected with flax that should be exploded: One is that it impoverishes the soil to a greater extent than any other crop—which is not so. It leaves the ground loose, and in better condition thsn wheat or barley does. While wheat and barley derive most of their strength from surface soil, flax draws largely from subsoil. The elements of a good wheat crop remaining after flax in some of the Western States, it is sown as a preparatory crop for wheat—a failure after flax being seldom known. Another false idea is, that it will not do to sow early on acconnt of frost. For the last two years I have had volnnteer flax germinating in december, standing the frost of winter without apparent injury, looking healthy and growing finely during the whole winter.

The Ground

Should be well plowed, the harrow following the plow, pulverizing and smoothing the gronnd in the best possihle manner. The seed ahonld then be sown, harrowed and rolled. The amount of seed sown to the acre depends altogether on the soil and season. Strong adohe land with plenty of rain will require abont fifty pounds of seed to the acre, while land less strong requires from ten to twenty ponnds less to the acre. One point always to he remembered is, in a dry season sow light.

Harvesting.

I have used a header and reaper, bnt am inclined to recommend the reaper. If headed and stacked, it should be threshed as soon as possihle; if it is allowed to get into the sweat, it is very difficnlt to thresh.

I can harvest and thresh at a cost of two dollars per acre. To hire the work all done it would cost ahont four. The details relative to threshing cannot be given in this article. It wonld require more than yon wonld wish to put in this article—in fact, it would require an article of some length on that point. I think I understand it fully.

Thieshing is the most difficnlt part of the whole business. Where it is not understood, twenty-five dollars worth of seed can he thrown away and the operator not know it. My advice is, to have none thresh hut those who nnderstand it fully. I believe the Vihrator is the hest flax machinea made, though good work can be done by other machines if properly arranged.

Yield.

The yield is from 200 to 2,400 ponnds. I never have had a very heavy yield, as I have had averse circumstances to contend with. On upland, from 600 to 1,000 ponnds per acre. On adobe, from 1,200 to 2,000 ponnds per acre.

There is one advantage that flax has over wheat and barley; it has no enemies to cnt it short, such as rust. blight, or insect which cut a wheat crop short jnst hefore harvest. It is safe to have a part flax, even if it shonld not pay qnite as well, to fall back on, in case of wheat and barley failure.

Its advantages over grain are, in harvesting and threshing, it reqnires less help, less sacks, less freight to market, and brings a mnch greater price.

Useful Information.

Value of Sweepings.—It is stated that one of the jewelry manufacturers in Newark, N. J., recently put down a flooring in their workshops, and that the gold they obtained in burning the old flooring not only paid for the new one but for putting two coats of paint on the entire factory. In another the hands all work on a sort of bracket standing out from the bench in front of them, so that the filings of gold may fall on a tin plate below, and be returned to the melting-room. The greatest care is exercised to prevent waste. The floors, benches and seats are carefully swept every evening, and the sweepings put away to have the gold removed from them by chemical process. Every now and then aprons, benches, stools, and even the flooring, are burnt up to get the gold out of them. Even brushes, clothes, cotton, wool and rags are burned. The average quantity of gold saved anually in this way in this factory is about $50,000 worth. All the water in which the 500 employes wash their hands is carefully filtered four times, and the amonnt of gold recovered from it averages about $15,000 a year. A barrel of sweepings will fetch $4.50 a pound; and even after they bave, as they think, extracted all the gold from them, they sell the refuse to the smelters at nine cents, and even as high as eleven cents a pound.

Green Varnish.—There is a most beautiful transparent green varnish employed to give a fine glittering color to gilt or other decorated works. As the preparation of this varnish is very little known, an account of it may in all probability prove of interest to many of our readers. The process is as follows: Grind a small quantity of a peculiar pigment, called "Chinese blue," along with about double tbe quantity of finely powdered chromate of potash, and a snfficient quantity of copal varnish thinned with turpentine. The mixture requires the most elaborate grinding or incorporating of its ingredients, otherwise it will not be transparent, and therefore useless for the purpose for which it is intended. The "tone" of color may be varied by an alternation in the proportion of the ingredient: a preponderance of chromate of potash causes a yellowish shade in the green, as might have been expected, and *vice versa* with the blue under the same circumstances. This colored varnish will produce a very striking effect in japanned goods, paper hangings, etc., and can be made at a very cheap rate.—*Cabinet Maker.*

To Preserve Books.—It is not, perhaps, so generally known as it deserves to be, that a few drops of any kind of perfumed oil will secure books and manuscripts from the deteriorating effects of mold and damp. The species of leather so extensively used by book-binders owes its powers of withstanding the effects of these destructive agents, to the tar of the birch tree—*betula alba.* The preserving of books, written on papyrus and parchment, by means of perfumed oils, was known to the ancients. The Romans made use, for this purpose, of the oil of cedar; hence, undoubtedly, tbe expression of Horace, "*digna cedra,*" meaning any work deserving of being anointed with this oil.

Popular Fallacies.—One of the most singular things is the tenacity with which popular fallacies cling to existence. Thus almost every man you meet believes that bairs are tubes, although this has been disproved over and over again by taking a bair and examining a cross section under the microscope. So too, most persons believe that every drop of water is filled with animalcules, while the truth is, that microscopists find it difficult to get specimens of water that contain enough for examination. It is true that some of the water supplied to our large cities will exhibit an abundance of animal life without the use of the microscope, but good well-water contains very few animalcules.

Variety in Colors.—New tints of the various colors are constantly being discovered. Over 2,000 established shadcs have already been produced for the dyer's art, and tbe number is constantly increasing. Among the forty or more shades of blue, scarlet, crimson and yellow, there are hues which were wholly unknown a few years ago, and for which it has been necessary to coin an arbitrary name, as tbey resemble nothing previously known. Every little while the popular fancy demands a new variation, and colors must be mixed and blended until something entirely novel is produced. It may be pretty or otherwise—that is regarded of comparatively little importance, provided it is the *style.*

Elasticity of Sponge.—Ordinary sponge cnt into small pieces and submitted to certain chemical processes, acquires such remarkable elastic property, that a weigbt weighing but one pound, compressed into a space of tbree inches in thickness by six in length and four in width, wben cut apart, will expand to over two feet in lengtb.

Cold as a Food Preserver.—M. Boussingault recently mentioned the fact that a number of samples of soup, meats, etc., which had been kept since 1865 in closed vessels at a temperature of 20°, retained all of their original qualities. The author also mentioned that the fact was true of the juice of the sngar cane kept in a similar manner.

A Substitute for Ivory.—An exchange says that a manufactory has been started in Newton, New Jersey, for making an article out of gum camphor and other materials, which is destined eventually to supersede the use of ivory. By this process the coming substitute for ivory can be heated and moulded into any shape or form desired. A practical substitute for ivory has long been an important desideratum.

A Hundred Years Ago. — The first stage coach from New York to Boston started on the 24th of June, 1772, from the "Fresh Water." It was to leave each terminus once a fortnight. The fare was four pence, New York currency, per mile. It reached Hartford, Conn., in two days, and Boston in two more. The proprietors promised a weekly stage "If encouraged in their great enterprise."

Singular Chemical Transformation. — A sheet of ordinary white blotting paper which will tear by its own weight when wetted, is converted into a material having all the properties of a tough parchment by merely dipping it for a few seconds into sulphuric acid. The Germans are using this artificial parchment for sausage skins. It need hardly be said that it is highly indigestible.

Stopping Runaway Horses. — Among the patented contrivances for stopping runaway horses, one consists of a pair of nose stoppers, attached to a bit, which are closed over the nostrils of the animal by means of a cord, which the driver pulls if the horse attempts to run. Another oonsits of a pair of blinders, by which the driver, on pulling a cord, instantly blindfolds the animal.

Novel Mode of Measuring the Hight of Trees.—The Canadian way of measuring a tree is said to be as certain as it is grotesque. You walk from the tree, looking at it from time to time between your knees. When you are able to see the top of a tree in this way your distance from the root of the tree equals its hight.

Chinese Labor.—Employing cheap Chinese labor is not always the best thing in the world for the interests of the manufacturers. In many cases no sooner do they learn the art of making tbe things, principally boots and shoes, and cigars, so far, than they turn and set up for themselves, selling at much lower rates.

A Fortune From Lamp Chimneys.—A glass blower of Pittsburg, Pa., was the original inventor of lamp chimneys, and has realized over half a million of dollars from his invention.

From Joppa to Jerusalem by Rail.—Cars now run from Joppa to Jerusalem in two hours.

Good Health.

Sanitary Conditions.

Dr. T. M. Logan, of Sacramento, delivered a lecture before the Polytechnic class last week on the subject of California Meterology and Sanitary Condition. Dr. Logan commenced his remarks by explaining that he did not lecture last week, as announced, because of a misunderstanding—the committee failing to notify him of the change of programme.

Tbe carefully prepared lecture was mainly devoted to hygiene, and addressed more to unprofessional than profesional ears. The lecturer adverted upon the uniformity of animated nature in the primeval ages, and the failure of such uniformity with the present occupants of the various countries of the globe. The study of ancient history and literature, he was inclined to think, was too much neglected.

Laws of Health Governing the Ancients.

In the most ancient ages laws of health were associated with the laws of government. These laws date from before the time of Moses, which is proved by temples devoted to hygiene. In Greece, sanitary laws were most carefully observed. By wholesome sanitary laws Sparta created an iron race of men, but more for warlike purposes than social happiness. In Athens symmetry of form was more thought of than robustness. Rome carried sanitary laws to a greater perfection than had before been known, and the proof of their success was the superior power of the Roman legions. The collections obtained from ruins show that the rules of health were very radical. From the decline of Rome less attention was paid to these laws, and the result was a rapid accumulation of all diseases affecting the human race. Enlightenment has increased the average of human life from twenty to forty years. In Turkey the laws requiring ablution are worthy of higher civilization. Since the destruction of Rome by Northern barbarians, and the people became slaves of a priesthood, the broad domains have become sickly marshes, and the people no longer obey the laws of health. Unless something is done, history will repeat itself, and the same fate will befall the fair lands of our Southern States.

Ravages of the Plague.

The lecturer quoted historical accounts of great plagues which had swept over Europe. In the fourteenth century the black death carried off one-quarter of the population of Europe. This fatal disease had its origin in Egypt. In 1399 the plague broke out in Itah for the sixteenth time. In 1485 Lazarettos were established in Europe, in which strangers were confined for forty days, hence the term quarantine.

Beneficial Progress.

Since that time there has been gradual progression to ameliorate the human race from disease. But at present water supply is as little thought of as was formerly ventilation. It is well-known that vaccination will wholly remove the danger of smal-pox, but people neglect this precaution from prejudice. California has taken a decided step in the right direction by the formation of a State Board of Health to advise upon general sanitary rules that shall be uniformily applied to all towns of the State. In conclusion, the lecturer urged that we use energy, trace ont the true laws of health and apply the practical knowledge of the Athenians, if we would have strong and vigorous constitutions and enjoy a healthful, long life.

Good Food and Good Health.

Upon this topic Professor Blot thus expresses himself: "The man who does not use his brain to select and prepare his food is not above the brutes that take it in the raw state. It is to the physique what education is to the mind, coarse or refined. Good and well prepared food beautifies the physique the same as a good and well directed education beautifies the mind. People's taste is in food as in dress, differing not only in colors, but also in shape, therefore by our variety of dishes and our different styles of decorating them, by the ease that they can be prepared in the cheapest as well as in the most costly way, we think we meet all wants and tastes. In fact, to use a very trite remark, "you cannot make a gentleman by feeding him on codfish." There is no country where there is so much dyspepsia as in America, because our people pay but little attention to food and eat too much meat for the exercise they take. If one has mental labor, fish every second day, at least is requisite. Soup sets all the glands at work, and prepares the stomach for the most important function of digestion, and therefore should be taken at dinner every day. Beef broth is to old age what milk is to the young. Cookery properly attened to keeps man in health, if the stomach is out of order the brain is affected. We have the soft and hard parts in our anatomy, and the bile, and therefore it is requisite to vary our food. We should eat more fruits, vegetables, soup and fish. Fish and cheese are the best articles of diet to give to children. United States has the most money of any people, and the greatest abundance of raw material, yet they live more poorly comparatively than any civilized nation. For instance there is a millionaire in Brooklyn who has pork and beans every second day for dinner. Wrinkles are produced by the want of a variety of food.

Light Clothing.—In clothing the human body this principle should be kept constantly in view, viz: Let the clothing be as light as possible consistent with comfort. Every pound of clothing beyond this constitutes a useless and constant burden. Besides this, it presses upon and interferes with the action of the skin. Adherence to this principle also implies an equal distribution of clothing over the entire body.

Dangerous Hollow Ware Enamel.—A Prussian physician has examined the enamel on hollow-ware sold in Berlin, and reports that the enamel on a stew-pan made in Belgium contained so much lead that 2¼ grains of oxide of lead was found dissolved in one litre of vinegar (3 per cent acetic acid) which had been boiled in it for one hour.

Hall's Journal of Health says: "The old and young delight in warmth; it is to them the greatest luxury. Half the diseases of humanity would be swept from existence if the human body were kept comfortably warm all the time."

A Good Liniment.—One of the very best liniments that was ever made for man or beast, is composed of equal parts of laudanum, alcohol and oil of worm wood.

Killing Knots.—Glue size and red lead gum shellac dissolved in alcohol, and mixed with red lead gutta percha dissolved in ether. But through all or any of tbese will the pitch of the knot exude if exposed to the sun? Perhaps the very best method is, to size the knot with oil size, and then lay a leaf of gold or silver on it. In a very choice piece of work, a hot iron may be held over the knot till a good portion of the pitch has come out and been scraped off, when the two coats of the leaf will be sure to keep out both the pitch and any discoloration.

The Moon's Atmosphere.—If the atmosphere of the moon really exists, its density is less than the 2,000th part of the density of the earth's atmosphere. Such an atmosphere would be more attenuated than the vacuum which is obtained, under tbe best conditions, in the most perfect air-pumps. The refraction, or rather non-refraction of stars, is the means by which this determination is obtained.

Miscellaneous.

Onions.

Onions can be used in many ways, though tbey do not range high in nutritious qualities. The odoriferous are altogether too high until well cooked. Like cabbage, they are almost indispensable to meat and vegetable soups. They are good also for stews. A delicious little stew, into which I was led by the favor shown to "Mallium," can be made of about equal parts onion, potato, and apple. Peel and quarter three onions, and put them to stew in double their measure of water for forty-five minutes, (for red or yellow onions one hour). Then cnt up and add three medium-sized potatoes, and three apples, pared, quarted, and cored. Then, upon one gill of wheat meal, pour boiling water enough to scald it, stirring it lightly; and when the stew boils up, after putting in the potatoes and apples, add this dough, in bits as big as an almond, and not compact. Cover close and dish the stew; and if the liquid is two thin, add a little wheat meal; salt and pour over the stew and serve warm. Rutabagas and parsnips can be used instead of the apples, but they require more time to cook, and are not so delicate. If meat is wanted in these stews, use the lean of mutton, not lamb nor veal.

Perhaps a word of caution is necessary at this time of the year about young meat. It contains very little nutrition (probably because not fully formed), and that little does not seem to be well adapted to onr wants. In many cases, the effects of eating it have seemed little short of poisonous. It is the best economy to kill the calves at once, if there are any to be disposed of, or keep them until they are at least a year old.—*Science of Health*

Rye Flour Bread.—Take as much flour as you wish for one baking of bread; make a hole in the centre of the flour and stir into it one teacnp of good hop yeast and one pint of new milk. Stir the batter a little stiffer than for griddle cakes. Then cover closely and let it rise over night. In the morning add more new milk, and knead up your bread very stiff. Then with your fist make a hole through the centre of the dough, and let it raise until it is even on the top. Your bread is then ready to put in the pans for the third raising, which will take about half an hour. Bake as you would wbeat bread. Salt it if you like. I have made most excellent bread in this way. It is also good to mix two-thirds wheat flour to one of rye.—*W. Rural.*

Calf's Head Pie.—Boil a small calf's head or half a large one, take all the meat from the bones, blanch and keep the brains separately, skin the palate, tongue, etc., and cut the latter into thin slices. Season with spices according to taste. Shape the meat for a few moments in a hot pan over a brisk fire. Put a rim or crust around your dish, lay in the meat, filling up with the yolk of eggs hard-boiled, pieces of the brains, forcemeat balls, and a little minced anchovy. Finish with a cupful of good gravy, and cover with a crust. A few flat sausages may take the place of the forcemeat balls, but they must be very highly seasoned, or tbe pie will be insipid. Oysters are likewise admissible.—*Ohio Journal.*

Pickled Lemons.—Take small lemons with thick rinds, and rub them with a piece of flannel; then slice them half down in four quarters, but not through to the pulp; fill the slit with salt pressed hard in; set them upright in a pan for four or five days, until the salt melts; turn them thrice a day in their own liquor until tender. Make enough pickle to cover them of good vinegar, the brine of the lemons, Jamaica pepper and ginger; boil and skim it; and when cold put it to the lemons with two ounces of mustard seed, and two cloves or garlic to every six lemons. When the lemons are used, the pickle will be useful in fish and other sances.

Corn-Meal Bread.—Pour over a pint of nice corn meal one pint of hot new milk; beat this well and add a little salt; then stir in a large spoonfnl of nice, sweet lard; beat two eggs very light and stir in also; this must be well beaten, and of the consistency of thin batter; add more milk if it should be too thick; then mix in a large spoonful of yeast; butter the pans and set it to rise in them; when risen, have the oven of a moderate heat, and put them in it; bake two hours and a balf to a light brown. Serve hot.

How to Prepare Turnips for Dinner.—Take of good turnips and potatoes enough to make two quarts of each, after being peeled and cut. Two or three pounds of fresh beef or pork, of medium fatness, should be boiled for an hour, to which the turnips and potatoes are to be added; boil the whole half an hour longer, then add half a teacup of both sugar and flour, and boil five minutes longer. When done, they ought to be masbed the same as usual.

Creamed Potatoes.—Have ready some potatoes boiled or steamed, and cut into slices; place them in a stewpan with a coffee-cupful of good thick cream, a desert spoonful of flour, some salt and crushed pepper, grated nutmeg, chopped parsley, and minced onions. Mix thoroughly, put upon tbe fire until scalding hot, but not boiling, and serve quickly.

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SAN FRANCISCO:

Saturday, March 29, 1873.

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Farmers' Union Meeting.

The California Farmers' Union will hold a meeting, called by President Bidwell, in San Francisco on the 9th day of April. Every Farmers' Club in the State should be fully represented. The Clnbs are not yet numerous in the State, only about thirty. There should be a large number of new ones organized between this and the time of meeting. It is an important period with the Union. Will the farmers throughout the State, by simple organization into Clnbs sustain and carry on the movement already started? It needs more than a few men—no matter how true and active they may be—to accomplish the important objects of the Farmers' Union. The time is short, yet we urge every farming town in the State to send delegates to this meeting of the Union. Meetings can be called in any neighborhood, and steps taken to organize permanent Clubs and send representatives.

Oakland Farming H. and I. Club.

A lecture on Beet Sugar—the history of its products, etc., will be delivered by Dr. A. F. Paitz, before the Oakland Farming Clnb, on Friday Evening, March, 28th.

TEACHING.—Heads of families or educational organizations, desiring the services of a lady teacher of the piano, the English and French languages, will find an advertisement and address of such person in another column.

Where to Settle.

An old Sierra resident, friend and correspondent of one of the proprietors of the PRESS now resident of Danville, Ill., says, "I want to go to California to live on a ranch, raise small fruits, nuts etc., and do just enough farming to make things move smoothly. Where can *we* go and do the best? Quite a number of families around here want to go to the Pacific Coast and settle permanently. Would like to go in company."

If the object is to raise small fruits for market, locate within five hours distance by rail or steamer from San Francisco. If for almonds, nuts, etc., anywhere in the great valleys of Sacramento, San Joaqnin or Tulare or anywhere among the foothills from the middle to the extreme southern limit of the State, below the line of severe frosts. Lands every way adapted to the finer semi-tropical fruits can be found along the coast from Santa Cruz to San Diego at reasonable rates, and in the San Joaquin and Tulare valleys it can yet be had in a few localities at government price.

But the best located of these lands, having reference to means of transit by railroad or navigable waters, are of course taken up, but can in many instances be obtained at a reasonable advance on first cost. We never advise any one to go to this or that part of California, but we do say, as in this instance, that the field for location is wide, extending for hundreds of miles from north to south and from fifty to a hundred in width, in all of which are thousands of places where the coziest little homes could be carved out of the larger or the lesser valleys, that would equal if not rival the fairest of the fair of any land or country. Look at what is said under our head of Agricultural Notes, for Tulare county, in this number of the RURAL.

Climatic Adaptability.

We have had several letters in answer to the inquiry of a correspondent of Spring Hills, Kansas, asking for information in regard to a locality in California where all the fruits of temperate olimes and many of the semi-tropical can be grown and perfect their fruits. We have published two or more of these letters and now comes another from R. I. Williams, of Cherokee Ranch, four miles east of Sonora, Tuolumne county, and he shows that that locality is absolutely unsurpassed, for the growing of all the fruits desired by our correspondent, including the apple, pear, peach, cherry, quince, plum, fig, grape, orange, lemon, almond and walnut.

He is certain that the quality of the fruit produced there is absolutely unsurpassed, and mentions that their apples keep till the new crop comes in. As regards health, that the climate is also unsurpassed, plenty of good, pure water, and that wood is abundant. That ranches can be bought with considerable improvements for less even, in some instances, than the improvements alone cost.

We would like to hear further from R. I. W. in regard to the agricultural interests of "Old Tnolumne," because we have ever advocated the adaptabilty of the foot-hills of the Sierra Nevada to the successful growing of all the fruits of the temperate and many of the semi-tropical ones of the heated zones, and believe he can post us further in relation thereto.

UP THE NILE BY STEAM.—This is the title of a little volume of 75 pages by R. Etzensberger, full of valuable and interesting information to persons making the tour of Egypt, and particularly the trip from lower to upper Egypt by land, on the Nile. No traveler to that land of wonders and ancient civilization should be without it. For sale by Thomas Cook & Son, London.

STATE FARMERS' UNION.—A mistake has gone abroad and been published in a few of the papers of the State, making April 15th the day of the assembling of the State Farmers' Union, at San Francisco. It should in every case read the 9th of April.

DURHAM STOCK.—We would direct the attention of the reader to the advertisement of E. S. Holden, in another column, offering for sale superior thoroughbred Durham stock,

AGRICULTURAL REPORTS FOR 1871.—We have just received from our Senator, Hon. Eugene Casserly, one dozen of the Agricultural Reports for 1871, which will be furnished to parties who first make application to this office.

ON FILE.—Wayside Chat; Manzanita; Sherman Island; Constant Reader; L. L. R.; Mrs. S. E. G.; and Senex.

Asparagus, Gigantic and Colossal.

We have received from Mr. Wm. Boots, San José, a box of asparagus, samples of three varieties, so far as their names make them different. Mr. B. says, "the three kinds we recognize as the Dutch Purple, Giant, and Conover; but you will readily see they are three full cousins."

They are certainly fine specimens and we think will be hard to beat, and shall keep thinking so until somebody else sends us a box a little better. In regard to their being different varieties, we are inclined to doubt it, except so far as difference of soil, climate and mode of culture may have produced a slight variation in color or form of growth.

We have personally, taken one year old roots of the most common, ordinary asparagus, and by superior cultnre for three years, transformed it into giant asparagus, and sold it as such with entire satisfaction to purchasers; whilst a very slight difference in the constituents of the soil, will produce a correspondingly slight difference in color as with the flowers and leaves of the hydrangea and many other plants.

Mr. B. further states, "we are cutting now from less than seven acres, and we sent to your market, S. F., full 4,500 pounds this week. The quality is not quite as good now as it will be for the next five weeks, as the ground is hardly warmed up yet."

Almond Culture.

We are inquired of in regard to the value of the yield of a full grown almond tree. It is difficult to say, until we know how large a "full grown almond tree" is. We have, however, certain reliable data from which our correspondent can base a pretty correct conclusion of the value of this nut upon trees of a certain age.

At St. Helena, Napa county, Mr. P. H. Sumner cultivates the almond successfully. In addition to a great variety of other fruits, he has upon his grounds 2,500 almond trees, a large part of which are in bearing. Some of them being six years old, have yielded nuts of the value of over $5.00 to the tree, or $67 from 12 trees, sold at the wholesale market price.

Forty or more of these trees, have trunks six inches in diameter; but they cannot be said to be "full grown" trees. The number of trees to the acre is one hundred, from which it is easy to estimate the value of an acre of land in almond trees 6 years old. We commend almond culture to the more general attention of orchardists throughout the State, below the altitude and line of severe late spring frosts.

A New Canteen.

Richard Kelly, of Red Bank, Tehama Co., in this State, has recently procured through the SCIENTIFIC PRESS Patent Agency, letters patent for an improved Canteen or water-carrier. Mr. Kelly proposes to make the canteen out of canvas or other thick and almost waterproof cloth, which will keep constantly saturated with the contained water, so that the evaporation from the outside of the canteen will keep the water inside cool and refreshing as long as any remains in the canteen. He also attaches to the canteen a filtering sack through which the water is passed in filling the canteen, thus enabling the traveler to use water which would be otherwise unfit for drinking purposes. This invention will be appreciated by all who know the value of a pure and cool drink of water in the hot and sultry days of summer, especially in those neighborhoods where water is scarce, and what little there is unfit to drink. Mr. Kelly proposes to immediately manufacture a quantity of his canteens for general use, so that farmers can supply themselves with them for use in the coming harvest.

About Buying Sacks.

Farmers in nearly every county in the State are discussing the matter of co-operating and buying grain sacks in large quantities to secure the best prices; yet we hear of none who have yet acted, and made their purchases, and we fear they may be too late to secure much benefit to themselves in the matter. The time is drawing near at hand when orders can no longer go to Europe for either burlaps or sacks, and get them here in season for the harvest, even by steamer and railroad. When that time arrives, we can tell what those who have it in their power will set the prices at.

Buckwheat.

A correspondent at Pope Valley, Napa Inquires of us the quality of soil best adapted to raising buckwheat, the quantity of seed required per acre, the cost of seed and the proper time for sowing it.

Any ordinary soil not too rich, with other conditions favorable, will grow buckwheat. The soil is more frequently too rich than too poor, causing an immense growth of haulm, without a corresponding yield of seed. The quantity of seed per acre is from 3 pecks to a bushel; it costs at the present time, $1.75 per bushel. In the Atlantic States the time of sowing it is from the middle to the last of June.

In California where there are no summer rains to bring up a crop in June or July, it should be sown from the last of March to the middle of April upon land sufficiently moist to bring up the seed, rain or no rain; but April and May showers materially assist in perfecting a good crop. It is considered a somewhat uncertain crop in its yield of grain, from its natural habit of continuing in bloom till it dries up, making the best season for its cutting quite uncertain.

The first seed will begin to ripen in 3 months and coutinues ripening while the plant grows; but begins to shed its seed soon after ripening, so that to take just the best time for harvesting and securing the most ripe grain, requires good judgment, and even then, many miss it.

Napa Valley.

A correspondent — A. S. Worrell — of the *Western Recorder*, Louisville, is now sojourning in California, visiting the different localities of interest that may from time to time attract his attention; and, having taken a look at Napa Valley, he speaks of it in this wise in a letter to a friend—P. H. Sumner, Esq.—which we are permitted to copy, and which we do as an indorsement of California country and scenery by an Eastern man:

A stranger in California, and naturally fond of sight-seeing,—especially those grand scenes of nature which abound in this State,—I recently had the pleasure of a visit to Napa Valley. I had heard much of this locality, and was therefore prepared to see something out of the ordinary way. Nor was I disappointed. The lands are surely rich enough to satisfy the most exacting; the scenery generally, and especially about St. Helena, the White Sulphur Springs, is exquisitely grand; while the climate is all that a reasonable man could require. If we did not have proof of the contrary I should not think it improbable that our first parents spent their happy days in this vale of Edenic beauty. The elegant mansions and "tasty cottages" that dot the upper valley, and the thrifty orchards of peach, apple, pear, fig and almond trees, that adorn this fertile region—conspire to make it one of the loveliest spots on earth. Were I a rich man, desirous of retiring from active labors, or a wealthy invalid seeking a balmy atmosphere, I would covet a home in this lovely valley. I found, however, that there was no place there for large farmers. These lands are too costly for ordinary farming purposes, but when they are put in almonds or other tropical fruits (for which they seem admirably adapted), lands in this valley will be cheap at even double their present value. And why should not a portion of our rural population forego the pleasure of raising "hog and hominy" for the more pleasant and profitable occupation of "tending the trees" in this Western Eden? Ten or twenty acres of choice trees will yield more net profit than ten times that area in wheat; and when the people come to see this, many of them will be willing to exchange their large farms for smaller ones, that will reward their labors much more abundantly.

Yours respectfully, A. S. WORRELL.

The Farmers' Grange.

This is an institution having its origin in the Western States. Its objects have been set forth in our paper. But one part of its constitution is new and commendable, viz.: that ladies are not only entitled to membership, but they are solicited to coöperate.

We were present at the convention of farmers, at Sacramento, to consider the subject of forming such an association in that locality. We are happy to record that the resolution was unanimously and most cordially adopted in favor of lady coöperation.

Thus, step by step, slow but sure, the rights and privileges of women are being recognized and admitted. Let us trust woman's instinct. If she finds any new appointment unsuited to her capacity, repugnant to her tastes, or leading to objectionable social derangement, we hazard nothing in saying that she will be the first to discern it, and she will gracefully withdraw.

HORTICULTURE.

Visit to the Nurseries and Floral Establishments in Oakland.

[Continued.]

In passing along the street car avenue where most of the best nurseries are situated we looked in again on the several grounds of Messrs. Hampton, Kelsey and Hutchison. The Australian Acacias were many of them in fine bloom. This is an extensive genus introduced now sometime since, and they lend a great charm to our winter and spring gardens by their profusion of flowers, grateful perfume, and great variety of style, evergreen trees and shrubs. The Acacia Mollissima is one of the best, having a foliage very soft and beautiful. A. Saligna is dwarfish with a fine deep yellow bloom. A. Retinoides and Florabunda are ever blooming and fragrant shrubs.

In the garden of Mr. Kelsey we observed some good plants of Begonia Foliosa and Boliviensis, the first suitable for hanging baskets and pot culture, and the latter a deciduous species growing from 18 inches to two feet in hight, leaves light green, and flowers in great abundance and bright red shining color; with many other good varieties of this now popular family. We also observed there some fine Coleus admirably adapted to pot culture, and desirable also for bedding out, from their rich and rare colors contrasting excellently with other plants.

At Mr. Hutchison's place we found many new and rare plants, which we had not time to notice and take a list of in our last visit. Mr. Hutchison has paid special attention to the cultivation of the favorite rose genera, and has most of the newest kinds, and is not behind any of our florists in importing every valuable and new sort of trees, plants and flowers.

In all the above three places Messrs. Kelsey, Hutchison, and Hampton, we found, in short, most kinds of plants richly represented; the highly esteemed florist flowers in large and choice collections; many of the lately introduced novelties, as soon as they are to be had; and some of the rarest and finest genera, particularly, in considerable propagation, to meet the numerous orders which are now increasing rapidly from all parts of California. We met many directly introduced novelties, the value of which are in these establishments to be tried, before they are sent out; others which have already passed their trial. Besides this the healthy state of the plants may be traced to the convenient construction of the houses, as well as to our most favorable climate, indeed too favorable for very many great sales, as private persons can so easily propagate many of the plants. All the houses are well lighted and thoroughly ventilated.

There is certainly much gratification afforded to the lover of natural science to behold objects new and rare, but there is sometimes a mania too prevalent for something new, or far-fetched, that is often made absurdly manifest by some amateurs as well as even professional florists; and plants are sometimes sought after with avidity, that have no more claim upon our admiration, than some of the most common weeds. It is often with a certain class of amateur gardeners as with poulterers: they occasionally get the "Shanghai" fever. We knew a gentleman who sowed a large patch, in his newly opened nursery, with what he termed the "Gold of Pleasure," Camelina Sativa. Being informed that it was nothing else than the Wild Flax, his *golden* dreams of pleasurable emotions subsided.

Passing on towards the end of the avenue we visited the very variously specimen planted grounds of S. Nolan. Here is a great treat for the lovers of beautiful trees, shrubs and evergreens, from nearly every clime, except the extremely tropical, in the open air. Here we saw nature in its earliest robes of green and spring flowers laughing out its triumphs over the late February frosts. In her hundreds of varieties of leaf and flowers, we saw the sweetest of her smiles, and through them we felt exultation in her joys—wafting her incense of thanksgiving and praise, to the bright and blue heavens above us. They that admire nature's smiles, may here find the study of this fine collection of botanical specimens handsomely planted along roads and walks well laid off in the curvilinear line of beauty. In this delightful spot the gifts of Flora are sufficiently abundant and diversified to arrest greatly our attention and deeply excite our admiration.

Let us in our wonderfully fine climate of California and at this delightful season, in witnessing Mr. Nolan's noble collection of the vegetable kingdom, combine the poetic with the truthful, and walk forth in this springtime and enjoy the substance of Milton's beautiful lines:

> "Now gentle gales,
> Fanning their odoriferous wings, dispense
> Native perfumes, and whisper where they stole
> These balmy spoils."

Mr. Nolan's success, as he stated, is owing to his strict attention to the fundamental preparation and condition of his soil, in deep plowing, sub-soiling, or trenching and draining his grounds, with heavy applications of well decomposed manure from time to time. Mr. N. considers the coolness, fogs and mists at night after the hottest days in his locality greatly conducive to the prosperous condition of his plantation and nursery.

Mr. N's place is rich in the Eucalypti. This is one of our best acquisitions from Australia, being composed of lofty timber trees, attaining hights from 20 to 500 feet, having great diversity of color in their young growth—yellow, brown, crimson, gray, blue, green, bronze; indeed, so various is the shading in the different species, that planting in groups the different varieties produces the finest effects for landscape purposes. The timber is used in Australia for buildings, for railroad purposes, for cabinet work, etc., some species are used specially for maritime purposes, as it has been demonstrated that the Toredo and other maritime worms or insects will not attack it. Mr. N. states also that as a timber tree, he knows of no surer investment; and as the future of California demands tree planting as the only means of bringing an equal rainfall, it is of great importance that we plant, understandingly, the best trees. Mr. N. has more than 45 species growing in his nursery, they are of easy culture, requiring little irrigation, and after establishment, say two years, prefer to be let alone. They can be raised in quantities at very low rates, and will be very profitable, if for cord-wood alone.

Mr. Nolan has a nearly complete collection of fruit trees, shade trees, shrubs and flowers. For a general idea of them, see his advertisement to be published in the next number of the PRESS.

WINTER PEARS.—This delicious fruit still continues abundant in our market. Excellent table pears, sweet and luscious are just as common as apples, though not as abundant; whilst the winter varieties best adapted to cooking, by stewing or roasting are larger and in abundance quite equal to the demand, and at very reasonable prices. We can beat the French or any other people or country in the production of fine pears.

Fruit Trees—Raspberries.

We have accounts from many parts of the country that an unusual number of fruit trees, especially the apple, peach and pear, have been set out this season. The fine gentle rains this year have been particularly favorable in California for this important business. No doubt a great many more trees will be yet set out as the ground is well soaked, and, generally, the peach, almond and some of the early pear blossoms have only just began to make their appearance. Our fruit in this State is but rarely injured by the frost. Last year, in some places the grape vines were severely injured, but this hardly occurs one year in five. Many new vineyards are also being planted.

Some kinds of fruit are yet very insufficiently cultivated. I do not know why a writer signing himself "Ruralist," in the *Call*, should not recommend the planting of the apricot among the kinds of fruit he points attention to. It makes a delicious canned fruit at any rate; when fresh, and if kept till it becomes mellow and juicy, we consider it a very nice and wholesome fruit. Among the fruits which are not sufficiently planted are the heart cherries, very few of which, comparatively, get into our markets so as to reduce the price low enough for the masses. Another not well attended to in cultivation is the finer kinds of raspberries. It is true the raspberry, like the strawberry, requires, or at least is the better for irrigation in our climate. But we suppose that is as easily done to one as the other. Although we admit that the cultivation of this delicious and delicately flavored fruit—the Falstaff raspberry for instance—is attended with more or less care, and, in some cases, with failure, yet the profits arising from it's judicious and successful production fully compensate for the extra care and expense required to produce it. We must not plant it in a tough sod, nor should we obtain for the purpose old canes or plants. Then we must prepare the ground for it as nice and deep and smooth as a garden plat. We must take great care to dig the young plants up from the nursery with good roots, and expose them as little as possible to the air. It is best to dig them up in the morning and cover them with cloths, and plant them in the afternoon or evening. And if the roots were dipped into a thin paste of mud and then put into their places in the patch it will be all the better. No time should now be lost in planting them, if that has not been done, as it would be better, already. Plant six feet apart in the rows. In the deep furrows spread a thin coating of fine, well decomposed stable manure or shovelings, to give the plants a good start, a thing which all fruits require. Cut off the side shoots to two or three eyes and the tops down to eighteen inches. Press the soil firmly down each one with the feet, and they then cannot be displaced by the plow or cultivator. We will continue our notice of our fruits here, from time to time.

OREGON APPLES.—Our markets are almost entirely supplied in the apple line from Oregon at this season of the year. Why is it? Is it because California apples will not keep till now as well as the Oregon, or because we cannot raise enough to supply our own home demand and hence import thousands of boxes annually from our northern sister State? Will our orchardists please tell us?



GIRLS BATHING IN THE SURF, AT HAWAII.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., March 25th, 1873.

FOR WEEK ENDING MARCH 11th, 1873.*

PROCESS FOR MAKING COKE FROM LIGNITES.—Harry Engleman, Salt Lake City, Utah.

SASH HOLDER.—Henry Thomas, S. F., Cal.

ACCOUCHEMENT COUCH.—Eliza Laviuia Moore, S. F., Cal.

SWIVEL HOISTING APPARATUS.—Thomas M. Martin, assignor to self and A. S. Hallidie, S. F., Cal.

WHEEL PLOW. — Louis Sachse, Monmouth, Oregon.

AGEING WINES AND LIQUORS.—Adolph Luquet, Monmouth, Oregon.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Bathing in the Breakers.

At Hawaii, Sandwich Islands, a favorite amusement of the natives, and foreigners who have attained the art, is swimming in the surf and diving beneath its foaming crests as they successively chase each other to the shore. Our illustration depicts a merry group of native girls each with their surf-board on which they rest, dive or propel themselves along with inimitable grace, ease and safety. A writer in the *Illustrated Press* says of the scene:

Hoomauna and all the rest of them are off for the beach now—they say the surf is good to-day for bathing. Kapello has gone, and beckons us. We are good swimmers, and why not, with the modest though narrow tapa that hinders nought in action or figure, around the middle of each of us?

A merry, lively crowd. Noise of surf and laughter, action, motion, grace. The breakers are certainly stiff; they knock you over again, without the least ado, until you learn to bestow yourself properly—as the natives do. You quickly learn to dive under each one as it comes along, and to catch your breath in time to be sharp "end on" for the next. That trick learned, and you presently begin to laugh at the terrors of Neptune yourself. You venture out; you are all right. Why should anybody get drowned in the breakers.

Hoomauna comes sailing by on her surf-board at railroad speed. You try it again and again, but the breaker refuses to pick you up.

You get tossed every time. There is an art in it more difficult to acquire than skating.

In sheer animal spirits you strike out for the farthest line of breakers beyond the outermost swimmers. One of the natives beckons you back, but you do not understand what she says or means. Kapello enlightens you after you have dressed. "You ought not to have gone out there—it is deeper, and the sharks come in as far as that."

A HINT TO FARMERS.—Last year the hill lands near the Bay, in Alameda County, produced limited crops of hay, notwithstanding a plentiful supply of rain-fall. The hard rains seemed to have packed the surface of the ground so that the suddenly drying winds which prevailed formed a crust not penetrable by the fogs and moist atmosphere upon which that section depends for the full growth of crops. Whenever the surface of the soil seems to crust over in this manner, the farmer should observe it, and when practicable roll his lands sowed to grain, soon after the rains are over, that the air may enter and by condensation impart the needed moisture.

The foregoing we find upon our table, evidently for publication. So far as rolling might break or crack to some extent the crust spoken of, rolling might be advantageous; but rolling land is almost always done with the view of making the surface of the soil for two or three inches in depth, more compact.

COL. PETER SAXE has 30 head of fine Short horn—Durham—bulls and heifers which arrived this week—Tuesday 25—from Kentucky. They can be seen at the corner of 22d and Mission streets in this city. Also a carload of fine Vermont, Spanish Merino Bucks and Ewes.



The Miner's Song.

BY. J. G. SEVERANCE.

I toil in "vein"—the life I "lead"
Up here in Deadwood Canon,
Will never pay unless with speed,
I "pan out" a com-"pan"-ion.
I "struck" a "specimen" that suits—
Her "lead" I've been "a-tracing"
Since first the beauty of the "buttes"
Came down my "race" a-racing.

The "color showed" upon her cheeks,
Her eyes "cropped out" with frolic;
Her hair sprayed out in golden streaks
On high, like my "hy"-draulic.
To test her worth I made "assay;"
Found her *o're* stubborn, rather;
And under *par*. I went away—
Not far—to see her father.

I sought him with a bitter groan;
His love for gold was mighty.
The only "Cupid" he had known
Was winged with a t-y-ty.
"What 'prospects' have you got, young man?"
Said he with scornful titter;
And when I said, to every "pan"
A bit, he was less bitter.

I "staked my claim" so very bold,
It warmed his heart of "boulder;"
He said, let wedding bells be tolled!"
And then I went and told her.
We "made the riffle" quick, you bet!
For I believed it better
To have the "record" made, while yet
The "parent vein" would let her.

Now she is won—we both are one;
Of love and gold the hoarders;
We swim in happiness and fun,
Content, like Swimtey's hoarders.
And in the "cradle" at my knees
She places—"just to please pa!"
I may as well "own up the cheese"—
A little nine pound "chis[illegible]a"

Plain Talk about Common Things.

EDITORS RURAL PRESS.—As we read your paper with much pleasure and think highly of it, I am willing to comply with your request, "Farmers write for your paper," and send you a few lines on homely subjects, which you can insert at your own convenience. [Our convenience for such sensible talk as "E. T. H." sends us is just as soon and as often as we can get it.—EDS. PRESS.]

Making Beds.

It is surprising how few persons, especially in this country, make their beds. They heat up the pillows, straighten the bedding, place show pillows outside (Oh! whited sepulchre) and call the bed made! To make a bed properly, the bedding should be stripped off and laid on a chair or something else conveniently placed, the mattress turned and after airing for a short time be neatly replaced. It is a good plan, where the members of a family are old enough, to have each one of them remove the clothes from his or bed before leaving the room, after dressing; such work occupies but a few seconds. The window should also be opened. This may be done in our beautiful climate nearly every morning in the year, so that the room and bedding may be aired by the time it should be made up again. It is a good plan in making sheets to put a broader hem at one end, by which means it is easy to tell which end has been at the top, as it is not pleasant to have the end in which you wrapped your feet placed against your face.

Too little attention is paid to the airing of beds though it is so essential to health, especially in a warm climate. Do not make your beds a store for rubbish; I have seen, in what would be called a well-ordered house, all manner of things from sheets of music to old slippers stowed away under the mattress.

Country houses are often small and it becomes necessary to put a box or two under a bed, to give as much space as possible in the rooms; but do not do this if you can find any spare corner for the purpose, for while the box is under the bed the broom will not pass freely under every morning as it should do.

When farmers are planning their dwellings they too often crowd several members of the family into one room; better far expend a few extra dollars in a few more feet of lumber, and have two bedrooms, so as to shut the little folks out of their parent's room. The air we breathe when sleeping cannot be too pure, and girls grow up with more delicacy of feeling than when, as I have known of cases, they have occupied the same room with their parents or brothers even after they have well advanced towards or into their teens.

Spitting.

Americans have acquired a most disgusting habit of spitting, at anytime and in any place. We were dining lately when a neighbor came in to say a few words on business. I inquired after the health of his family; he replied by first spitting on the floor, and then remarking that they were all well at home. He soon left and with mop and water I hastened to remove the disagreeable traces of his visit; I need not add I ate no more dinner that day.

In most farm houses the scrubbing is done by the women of the family, and I would ask the men to respect the labor we spend upon our boards. Clean boards add to the cheerfulness of home. Then help to keep them clean, and if you must continue this filthy habit please confine yourselves to your own houses.

Music.

I think it is to be regretted that the children of farmers have so little opportunity of learning music. Nothing is more attractive, or better calculated to create refinement and unite a family in kindly sentiments, moreover it keeps young men at home during the long winter evenings, makes their homes cheerful and drives away cards—those devil's pictures. I would have singing taught in all our public schools, and, voice or no voice, every child should sing. Everyone cannot sing well, but all young people who understand their notes and time can take a part when music is the subject on hand. Much good would come of it, I am sure, and I ask our active men to devise some means for the more general instruction of music into our families.

Dress.

An excellent article comes to us, in a late *Chronicle*, on this subject, and I would advise all who can get it to read it. Although it does not quite apply to country society, there is nevertheless good to be learned from it. To our country women I would say, pay more attention to your dress. I do not mean to the frills around your skirts, or to the green and yellow ornaments in your ridiculous little hats; but to the plain morning dress in which you come to breakfast. It is rare among farmers' families, where I am acquainted, to see a woman with a collar or frill around her throat; yet how much it adds to her neatness. Do not appear with rents in your skirts, or gathers torn, or your hair undressed.

I know that farmers' wives and daughters have to rise to cook an early breakfast; but ten minutes sooner out of bed will allow of your appearing as you should. A plain (no frills) print dress, neatly kept, is, I think, the best for morning wear for a woman who has household work to do; and after dinner, when the rough work is done, this can give place to a smarter one. Farmers' wives should keep themselves neatly dressed not only when they visit and receive visitors, but in their own homes and on every-day occasions. Dress to please those of your own family and to render home more attractive. Depend upon it that supper will have a greater relish if our wives and daughters are neat and bright in appearances, and our men, who are day laboring in the fields to keep us supplied with necessaries, will think their labors lighter if home is made bright by the means indicated.

We must look to the little things in life, for they bear much on our happiness. Do not study to dress to please strangers, to whom you owe little, perhaps nothing; but dress to please your family to whom you owe everything.

E. T. H.

Centerville, Fresno County, March 11, 1873.

A House in California One Thousand Years Old.

The loftiest house, and the most perfect in the matter of architecture I have ever seen, was that which a wood-chopper occupied with his family one winter in the forests of Santa Cruz county. It was the cavity of a redwood tree, two hundred and forty feet in hight. Fire had eaten away the trunk at the base, until a circular room had been formed, sixteen feet in diameter. At twenty feet or more from the ground was a knot-hole, which afforded egress for the smoke. With hammocks hung from pegs, and a few cooking utensils hung from other pegs, that house lacked no essential thing. This woodman was in possession of a house which had been a thousand years in process of building. Perhaps on the very day it was finished he came along and entered in. How did all jack-knife and hand-saw architecture sink into insignificance in contrast with this house in the solitude of the great forest! Moreover, the tenant fared like a prince. Within thirty yards of his coniferous house a mountain stream went rushing past to the sea. In the swirls and eddies under the shelving rocks, if one could not land half-a-dozen trout within an hour, he deserved to go hungry as a penalty for his awkwardness. Now and then a deer came out into the openings, and, at no great distance, quail, rabbits and pigeons could be found. What did this man want more than nature furnished him? He had a house with a "cupola" two hundred and forty feet high, and game at the cost of taking it. This Arcadian simplicity would have made a lasting impression, but for a volunteer remark, that nothing could be added to give life a more perfect zest. "Well, yes," said he, "I reckon if you are going back to town, you might tell Jim to send me up a gallon of whisky, and some plug tobacco." If that message had not been suggested, we should have been under the delusion to this day that the lives of those people, dwelling in a house fashioned a thousand years ago, were rounded to a perfect fullness, without one artificial want.—*Overland Monthly for March.*

DAILY newspaper paragraphing is getting to be fearfully abbreviated. Here's a specimen recording a death—"Clay Spencer, colored, pint of Memphis whiskey."

Home Life.

Even the most minute insects have their homes, the birds their nests, the beasts their lairs; every animal, left to itself, finds a home in which it enjoys happiness. Most of all is this necessity manifest in the human race; and the greater the civilization, the more tenacious is this clinging to home, and the more profuse are the means brought to bear to perfect its arrangements. The wandering Arab may content himself by pitching his tent from time to time; but the civilized man longs for some permanent spot, however humble, sacredly guarded from the outer world, where he may gather his family around him and enjoy the blessings of home life.

When the young are suddenly removed from the restraints and influences of their early homes, and are no longer under the eye of those they have been accustomed to respect, then comes their chief time of trial and danger. Travel, with all its advantages in enlarging the mind, is not without its risks in the character. Many who are exemplary at home are reckless and dissipated abroad. While expansion of mind is gained, the powers of concentration are often impaired; and though useful as an exceptional refreshment and invigoration, a life of constant travel would be no more beneficial to the soul than the substitution of tonics for food would be for the body. The effects of hotel life are equally injurious; and all experience proves that the true family resting-place, the *home*, where parents and children blend in loving unison, is indispensable to the well-being of society and the happiness of the individual.

If this need of home be so inherent in our natures, and so important to our welfare, it becomes the duty of all to see to it that they contribute their share to its establishment and perpetuation. This obligation, in some of its many forms rests upon every one. The father who maintains the household, the mother who directs it, the children who are its joy, are all active and responsible agents in making home the centre of their truest life, the birthplace of noble aspirations and generous affections, and the spot to which the memory of future years will cling most fondly. These blessings need not be confined to those only who are near of kin. There are many who, from various circumstances, have become temporarily homeless. They have, perhaps, cut loose from family ties, and have come to the city to engage in the eager struggle of life; but they have no haven of rest for their moral and social refreshment—they have no *home*. It is a noble and a worthy deed to welcome them to some degree of participation in the pleasures of our own households. Many a young person has been saved from ruin, and rescued from evil companions, by the simple welcome of a friend, to share in the innocent enjoyments of the family fireside.

The conception of the felicity possible to be realized by true home life falls usually far short of a true standard. The means of happiness within the reach of every household are greater than they are aware of, and lie more closely within their reach. Riches may purchase luxuries, but can never buy the sweet content and satisfaction that flow over the humblest household where affection and order reign supreme. In the world, the selfish principle gathers intensity from the very nature of the struggle. But home rescues us from utter selfishness. Here we learn the beauty of generosity, the depth of affection, the self-abnegation that only love can teach. Let us then cherish our homes as our most sacred treasures, guarding them jealously from all that can embitter or defile, yet generously opening them to cheer and comfort those who are less highly favored.—*Philadelphia Ledger.*

DEARTH OF MEN.—The London *Daily News* complains of a famine of men, and particularly young men, marrying men, and dancing men in London society. Balls are crowded with women, beautiful, accomplished, rich, with a thousand charms, and hundreds of thousands of attractions; but the men are in an overwhelming minority. The *News* thinks the wines and cookery are at fault. It is not that. Men cannot afford to marry, and so keep out of the way of temptation. When a man is trebly intoxicated with wine, beauty and dancing, he is almost sure to make a fool of himself, and a declaration of some sort more or less matrimonial, to some lady. He cannot possibly remember all the foolish things he said, and there is nothing to hinder a lady and all her relations holding him in the net in which he has got entangled.

YOUNG FOLKS' COLUMN.

"Snowbird" to Jennie.

DEAR JENNIE:—
Dame Nature has taken a terrible cold,
And another white mantle her bosom enfolds;
To-day in a passion, she raised such a breeze
It nearly stripped branches from stubborn old trees,
While man disappointed at not seeing Spring,
Was ready his sx at old "Boreas" to fling.
The poor little lambkins could scarcely stand ground
And with lambs all a tremble went shaking around.
The hens said, "It's time we were laying the eggs
For which every grocer so earnestly begs."
The roosters said "Certainly, we'er in a fix,
We shall all be behind hand in hatching out chicks."
The gentle old moolies, with shins soft as silk,
Said, "No one could blame them for scantness of milk;
With biting and sharp-piercing winds, 'stead of rains,
The lacteal fluid congealed in the veins."
The horses, who always of weather take notes,
Thought such things betokened a rise in their oats,
And if it continues there's mischief to pay,
It will ruin all farmers to furnish the hay."
The ganders said, "'Tis terribly out of our way,
We always have mated St. Valentine's day."
The geese grimly muttering under their breath—
"No sense hatching goslings to freeze them to death."
The turkeys who reign at all feasts, as 'tis fit,
Said, "Nature must alter her tactics a bit
If she didn't do better, they all would cry, 'Quit!'"
All these sayings happened beneath the blue arch
On the farm where I'm staying, the eleventh of March.

SNOWBIRD.

Chenango Valley, New York.

The Sea Horse.

We give, this month, for the benefit of the little folks, the accompanying representation of a curious fish found along the coast of the United States, in both the Atlantic and Pacific Oceans. From



the peculiar formation of the forward parts of its body, resembling so much the head and neck of a horse it is sometimes called the sea horse. The scientific name of this fish is *Hippocampus*, from two Greek words, signifying a horse and to bend.

It is about six inches long, and divided throughout its entire length, by transverse ridges or rings, much like those sometimes noticed on caterpillars. It is of a hard, horny texture, especially when dried. They are covered with triangular scales. When these fishes swim, they assume a vertical position, but their tails seem on the alert to seize whatever it meets with in the water, clasping the stem of rushes. Once fixed, the animal seems to watch attentively all the surrounding objects, and darts on any prey presenting itself, with great dexterity. When one of them approaches the other, they interlace their two tails, and it is only after a struggle that they can separate again, attaching themselves by the lower part of the chin to some bush, in order to release themselves. They have recourse to the same manœuvre when they wish to raise the body, or when they wish to wind their tail to some new object. Their eyes seem to move independently of each other, like those of the chameleon. The iris is bright and edged with blue.

The sea horses have the pectoral fins so formed as easily to sustain the body, not only in the water, but even in the air; they are in fact winged fishes, and probably originated the famous winged courser of mythology, after which they are sometimes named. They live on worms, fishes' eggs, and fragments of organic substances, which they find in the far land at the bottom of the sea. This is one among the many curious wonders of animal nature, in its smaller developments, which we propose to describe to our young readers from month to month.

A WORD TO OUR BOYS.—How do the boys who read the RURAL PRESS spend their leisure evenings? You should endeavor to improve such hours by storing your minds with useful knowledge—improve every one of them—read, write: do something that is useful to yourselves or others. Make it a rule to read at least one hour during every leisure evening; and two hours when you can, and you will be astonished when the year comes round to find how much you have learned.

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

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Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

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And a fresh stock of

HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

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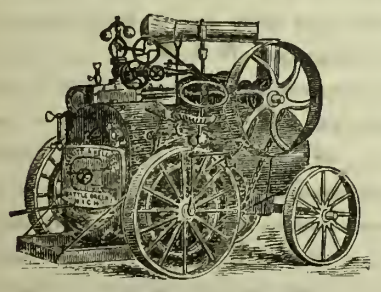
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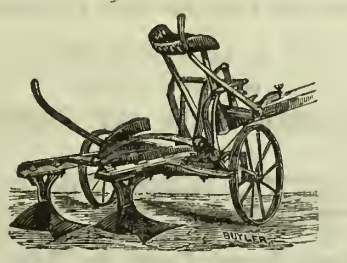
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This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,

301 J street, SACRAMENTO, Cal..

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MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

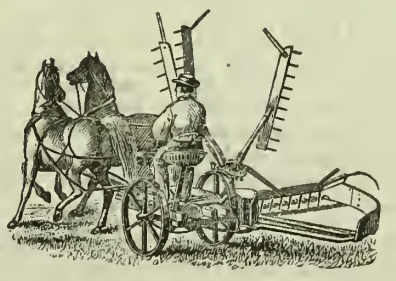
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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For the Harvest of 1873.

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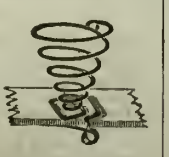
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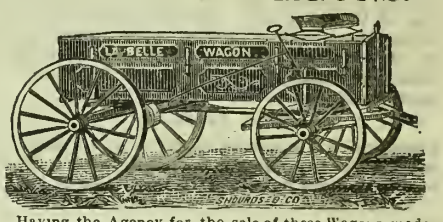
Thimble Skein AND IRON AXLE

Sole Agents TREADWELL & Co.

It will pay any man who wants a Wagon to examine "The Whitewater." It has the reputation of being the BEST Farm Wagon ever sold in California. All sizes for sale by TREADWELL & CO., Sole Agents, San Francisco. 7v5eow

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LA BELLE WAGONS.



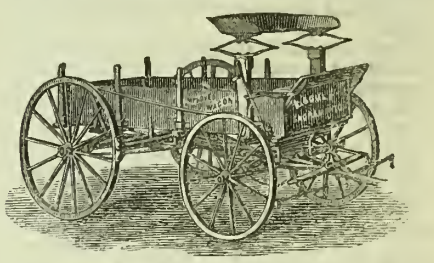
Having the Agency for the sale of these Wagons, made at Fon du Lac, Wis., by Farnsworth Bros., Knapp & Co., we are prepared to furnish them, single or in any number, light medium or heavy 2-horse and 4-horse (Thimble-skeins and boxes), and warrant them to stand well, and to be equal in all respects to the best Eastern-made Wagons sold here.

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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Simple, Durable and Practical.



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Of Lice in Chickens,

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$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

Mount Diablo Coal Mines.

We condense the following interesting items concerning the operations at the Mount Diablo Coal Mines, from a correspondence in the Brooklyn *Home Journal:*

A large amount of coal has been extracted during the past ten years, and the underground workings are now of vast extent, there being at the present time from five to six miles of levels or gangways in working order, independent of those abandoned and now caved. These levels are run across the breaks of the different veins at a distance of some 325 feet apart, from which miners work up through the breasts to the higher levels, cutting out the coal with exception of pillars left for support on either side of the gangways, and inserting timbers behind them as they advance to the upper levels, throwing the coal as cut into shutes about sixteen feet apart, down which the "buckers" convey it to the

Lower Levels,

Along which it is hauled in rail cars, by mules or horses to the different stopes, up which the cars are hoisted by steam power, and then run off and dumped into the "bunkers" on the surface.

In these "bunkers" the coal is screened by some of the Heathen Chinee before being loaded on the steam cars for shipment, and in these "bunkers" is the only point at which our illustrious pagan brethern are allowed to work, so there are not enough of them paid to support a "Josh" at this point, while their Christian brethern are called on for contributions to send missionaries for their conversion abroad.

There are three different stopes now in use; 150x400 feet in width and 500 feet in length. A number of steam pumps and engines are at work at various points; while coal is obtained from

Six Different Lifts.

So you may imagine the operations are somewhat extended.

The company are now engaged in sinking a new shaft 19x9 feet in the clear, with two compartments for hoisting and one for pumping, said to be the largest and best on the coast, and now down 227 feet, designed to strike the upper vein at a depth of 400 feet; and the lower one at the depth of 800; to be continued to a much greater depth in the future at a depth of 217 feet.

A 12x15 Foot Tunnel

Which is 658 feet long, is being run from the shaft to intersect present workings on both veins.

A month hence two new engines will be purhased at a cost of $25,000, which with cost of shaft to depth of 400 feet, is estimated at $200,000, and when completed most of the present hoisting aparatus will be measurably abandoned.

About six years ago the company constructed

A Steam Railroad

Down through the cañon from the mine to New York landing, and the coal is now run from the bunkers into the cars and thence dumped on board of vessels at the landing, the cars running down the whole distance, under brakes, the descent being 767 feet, the heaviest portion of the grade being

300 Feet to the Mile,

The steepest up which locomotives are driven in the United States. Three locomotives are in constant use, principally for hauling up cars, freight and materials for the mine; two passenger cars, daily, being attached.

As I stated before, the present yield is from

8,000 to 10,000 Tons per Month,

And the company are prepared to throw that amount or more on the markets in the future, and our English cousins are hardly likely to prevent it by competition, as their supplies seem to be rapidly exhausting.

It will cost probably $40,000 to place the new hoisting engines in position. They are on the

First Motion Principle,

A new introduction in this country. The drum revolves with each revolution of engine, taking up forty-two feet of rope, and capable of hoisting and discharging a load of one ton per minute, from a depth of 1,000 feet. The rope will be of English steel wire, tapering, and weighing two tons. The engines are being built at the Pacific Iron Works, San Francisco, under the superintendence of Mr. Prntter, engineer of the mine, and will be of 300 horse-power.

Austin, Texas.

EDITORS PRESS:—A few items in regard to Texas may be of interest to you if not to your readers. Immigration is coming into the State very rapidly, at the rate of 100,000 per year; yet the people are sadly deficient in knowledge, fully five years behind California in the ordinary progress of things. The city of Austin, the capitol of the State, has 10,000 inhabitants; has salubrious climate; one of the best vegetable countries in the world, yet not a fresh vegetable to be seen in the whole city. The Raymond hotel, first-class, charges $3.50 per day; nothing but canned fruits and canned vegetables on the table. Outside of Galveston a bath house is not to be found in all Texas.

I think the Legislature, which is now in session, would do well to appropriate $4,000 for a 1,000 copies of your PRESS to be given gratis to the people of the State. TRAVELER.

March 3d, 1873.

Utilization of Placer Tailings.

Wherever the tailings from placer claims are backed up, the soil thus made is the most productive of any known in the mining section, affording by its looseness the most favorable condition of vegetation and tree growth, no doubt owing in part to its permeability to moisture. But this does not include tailings from heavy hydraulic claims, this being generally clear sand and gravel.

The most valuable and productive garden spot in the mining section is made ground, and thousands of similar places abound whereby a small amount of labor, flats drained of their moisture and rendered barren by some ugly cut sluiced through in the search for gold, can be filled up and made valuable. In favorable locations it would even pay to sluice off from some steep hillside having a rich deep soil, to level these once fertile flats, now drained dry as a bone during our long summers.

In filling up a gulch—as in fact anything connected with improvement of the soil—the best way is the cheapest; construct a dam of two parallel walls of stone from two to four feet apart across the gulch and from bank to bank and fill in with soil well rammed down. However, well this may be done, there is always a strong probability, that when completed and filled, the water would find some place to leak through, and by the head acquired get a hole through, thus washing away the filling, if not undermining the walls themselves.

The best way is to back up the water by building up the dam, if not in too much volume, give the lower wall, considerable slope up stream and use as large a stone as can be handled in laying it, the larger the better, especially at the bottom.

If there is much water in the gulch it may be well to put in a long box, in the lowest place under the dam, and have a gate at both the upper and lower ends. The gate above to shut down and raise the water, to puddle the filling between walls, or to draw off the water in case of breakage; the lower gate shut above when all is finished would fill up with sand, but in any case it would be well that the stone work did not rest upon the box. When finished and up to the necessary level a ditch or by-wash should be dug around one or both ends of the dam, and continued for a sufficient distance below to prevent undermining, and of a capacity to carry off all heavy rains or surplus of water.

As placer mining has been the destruction and ruin of the best portions of the country where carried on, I call the attention of those making homes, to this method of partly repairing the damage, and in the long run will pay better than the ground originally mined out.

I. H. REID.

West Point, Calaveras Co.

Sheep--The Different Breeds.

A lady correspondent, Mrs. J. A. K. of Oak Grove, San Diego Co., remarks: I am a believer in your most estimable paper, and never omit reading all there is in it. Being a stock-raiser I take the liberty to suggest the idea of discussing the comparative merits of different breeds of sheep through the RURAL.

Many people wishing to improve their sheep, would undoubtedly do so to better advantage if they could be made to know the difference between the different breeds and hence their better adaptation to different localities.

We shall consider the proposition of our correspondent and doubtless act upon her suggestion, commencing with next number of the PRESS.

A BEET SUGAR FACTORY AT BODEGA.—A company has been formed for the erection of a beet-sugar factory at Bodega, where it is claimed that the cost of raising sugar beets will not exceed $2.50 to $3 per ton, or 40 per cent. less than the cost in Alameda county. It is also alleged that the climate and soil of the coast lands of middle and northern California are very well suited for the cultivation of the sugar beet, and that the locality of Bodega possesses peculiar advantages for its production and manufacture, as the soil is rich, loose, deep and alluvial, free from mineral salts or alkaline elements, which tend greatly in some parts of this State to neutralize the saccharine product; is abundantly supplied with pure fresh water; is never affected by the drouths incident to California, and is provided with a permanent supply of fuel at one-fourth of the cost of other localities.

EASTERN AGENT.—Albert H. Lewis, formerly of Atchison, Kansas, who has spent the past season in California, is now on the way to New York and other Eastern cities to represent the business of this office. Manufacturers and tradesmen who have the pleasure of an interview with him, can learn something of interest about California, and make favorable contracts for patronage of the several journals connected with this office.

A PROTRUDING toe is not a sightly thing, say nothing about health and comfort. SILVER TIPPED Shoes never wear out at the toe.
For sale by all dealers.

GROCERIES AND PROVISIONS.—Wines and Liquors are shipped to country orders with dispatch, carefully marked and packed, free of extra charge, by B. SBARBORO & BRO., 531 Washington street, S. F. This long established firm now import their goods from the four parts of the world, and consequently undersell all other grocers in San Francisco. All orders from the State and coast are promptly attended to. Address B. SBARBORO & BRO., Lock Box 1126, San Francisco. d14-3m

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ALTOGETHER THE BEST.—It is curious, but true, that J. A. SHABER, 707 Market street, near Third, should sell Furniture and Bedding cheaper than any other dealer in this city. Try him and you will be convinced. 3v5-3m

For the very Best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator," 429 Montgomery street, San Francisco. 26v4-3m-eowbp



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Publishers, Patent Agents and Engravers, No. 338 Montgomery street, S. E. corner California, S. F.

DURHAMS FOR SALE.

Three Fine Thoroughbred Cows, and Two Young Bulls.

All superior animals. Enquire of

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We have been awarded the silver medal of the State Fair of Illinois, held at Springfield, for the best native wines and brandy. We warrant our goods perfectly pure and warrant them to keep. 13v5-tf

Puget Sound Farm for Sale or Exchange.

I offer for sale one of the most desirable farms in the Puget Sound section. Said farm contains 643 acres of excellent land, situated within easy distance of Olympia, the Capital of Washington Territory. New House, Good Barns, and Fences. About 60 acres in lawn grass, will seed as much more the present season. About 100 acres of splendid timber, within one mile of saw-mill. Several hundred acres of bottom, covered with growth of alder, willow, etc. Large outside range for stock. Price, $10 per acre, part time, or will exchange for desireble property in Coast or Bay Counties, California.

Address

E. L. SMITH, Olympia, W. T.

Refer to A. T. Dewey, of this paper.

ma29-4t

The Trotting Stallion NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8¼; he beat Commodore Vanderbilt in three straight heats in 2.25½, 2 25¾, 2.24¾. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25½, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Nanbuc Farm, San Lorenzo, Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,

12v5-9t 637 California street, San Francisco.

The Whitewater Wagon.



PRICES:

Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and slay chains.

Bede, Brakes, Seats, etc., $40 to $50, complete, according to style. **Iron Axle, $130 to $185**, according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth**, and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.**

Knowing that a Wagon, to be popular in California, must be a **good one**, and desiring to bring out for our trade not only THE BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others, for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States, (Winchester & Partridge, of Whitewater, Wis.,) and their Wagons may be found in all parts of the country.

We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load sacks, wood, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars**, and the seats **hardwood Standards**; the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVETED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the climate of California**, being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory**, and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made.

Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market.

If you want a wagon, and want a GOOD ONE, at a low price, give the "Whitewater" a trial.

TREADWELL & CO.,
San Francisco,
General Agents for the Pacific States.
13v5tf

"Cheerful Voices" for Schools.
"Gems of Strauss!" All buy it.

There is no mistake about the remarkable character of this **CLARKE'S** MODEL INSTRUCTION BOOK. From the first it has taken the lead, selling largely, and eliciting high commendations from those well qualified to judge. Musical Writers for the papers say:—"Likely to become as popular as Richardson's." **NEW METHOD FOR** "The very book!" "Among notices, every article has justly placed it far above **REED ORGANS.** any similar book." "Attracts and allures the pupil." "Overflowing with pure melodies."

Price $2.50. For sale everywhere.

"Sparkling Rubies," for Sabbath Schools.
"Musical Treasure!" All Try it.

OLIVER DITSON & CO., Boston.
CHAS. H. DITSON & CO., 711 Broadway, N. Y.

PILSBURY, WEBB & CO.,

(LATE MARSH, PILSBURY & CO.,)

HARDWARE.

— ALSO —

Agents for the best CHOPPING AX, POST AUGER, AND WRINGING MACHINE ever made. For sale cheap. Call and see.

CORNER Front and Pine streets, San Francisco.
12v5-tf

6,000,000 Pairs of SILVER TIPS

Sold in the year 1871, by which

$6,000,000 was Saved

To parents throughout the country.

SEND this paper to your friends abroad.

S, F. and Liverpoo Average Price Wheat.

NOTES.

*—Variation—Average increase daily. †—Variation—Average decrease daily.

‡—Average monthly decrease.

ᶜ—The difference here noted is that between the average price of average shipping wheat in S. F. and in Liverpool, as telegraphed by the Associated Press and to the Merchants' Exchange on particular days.

1873	SAN FRANCISCO.								LIVERPOOL BY TEL.		
DATE.	COAST.	VA.	SHIPPING.	VA.	MILLING.	VA.	CALIFORNIA AVERAGE.	CALIFORNIA CLUB.	DIFFS
Feb. 25	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87	3 03 @3 15	1 04½
26	1 60 @1 80	....	1 80 @1 85	....	1 85 @1 90	....	2 85 @2 87	3 03 @3 15	1 01½
27	1 60 @1 75	+2½	1 70 @1 80	+1½	1 80 @— —	+1½	2 83 @2 85	3 03 @3 15	1 09
28	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87	3 03 @3 15	1 09
Mar. 1	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87	3 03 @3 15	1 09
3	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87	3 03 @3 15	1 09
4	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 81 @2 87	3 03 @3 15	1 09
5	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 82 @2 89	3 03 @3 15	1 11½
6	1 60 @1 75	....	1 70 @1 80	....	1 80 @— —	....	2 84 @2 90	2 95 @3 03	1 12
7	1 60 @1 75	....	1 70 @1 80	*5	1 80 @— —	*10	2 85 @2 91	.....	1 13
8	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91	.....	1 08
10	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91	.....	1 08
11	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91	.....	1 08
12	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91	.....	1 08
13	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 85 @2 91	.....	1 08
14	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 89 @2 91	.....	1 10
15	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 89 @2 91	.....	1 10
16	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 81 @2 87	.....	1 04
17	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 81 @2 87	.....	1 04
18	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 81 @2 87	.....	1 01
19	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 81 @2 87	.....	1 04
20	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
21	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
22	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
24	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
25	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
26	1 60 @1 75	....	1 75 @1 85	....	1 90 @— —	....	2 79 @2 83	.....	1 01
Extreme advance..		....	.....	....	.....	....	.....	.....	.....
Extreme decline..		2½	.....	2½	.....	*2½	.....	.....	.....

Wheat Market Quotations Compared.

1873	S. F.	LIVERPOOL.		DIFF. BET.	
JAN.	SHIPP'G.	*TELEGRAPH REPORTS.	†MAIL REXORTS	Mail and Teleg	S. F. and Teleg'h.
14	2 02½	2 97@4 01	3 10@3 16	14	96⅝
17	2 05	3 03@3 05	3 12@3 18	11	1 10
21	2 02½	3 06@3 08	3 07@3 27	10	1 14½
24	2 02½	3 04@3 06	3 05@3 25	10	1 12½
28	1 95		3 03@3 25		
31	1 92½	2 98@3 01	3 01@3 24	12½	1 07½
FEB. 4	1 92½	2 98@3 01	3 03@3 28	11	1 07
7	1 91¼	2 96@? 99	2 99@3 20	12	1 06¼
11	1 91¼	2 92@2 97	3 04@3 29	22	1 04¾
14	1 89½	2 93@2 95	3 06@3 31	24½	1 06½
18	1 87½	2 93@2 95	3 01@3 26	19½	1 06½
21	1 83¾	2 89@— —	2 99@3 24	22½	1 15

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Olub are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express," In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At Wholesale when not otherwise indcated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCIACO, March 26th, 1873.

The same general remarks that we made on the Produce Market the provious week, will also suit for the one just closing, save that Barley is weaker, and that Oats are firm. Cotton, of which we have been giving receipts of a few hales every week, promises to assume an unwonted importance as a staple of this Coast. This year over 300,000 hales of 400 lbs each will be required by the factories of Europe and America, over and above what all the cotton-producing countries of the world will be able to supply. This, if raised in the State, could be very readily sold at 19½ cents per lb, and find even a more ready market than Wheat. We could, if we could supply this deficiency, add $24,000,000 to the value of the products of the State, an amount equal to the whole eatimated value of our exports of Domestic Produce this year. The five hundred bales produced in the State this year have found a ready market, the greatest portion of it being used up by one of our woolen mills, the Mission and Pacific. This matter, therefore, that of the cultivation of cotton, is of the first importance to the farmers of the State.

Receipts.—We have again to chronicle a decline in receipts of Bay Produce as we will nearly every week for a few months, the last years' crop of all kinds of Domestic Produce, being nearly all sold by the producers.

The receipts of Flour have decreased one-third, those of Wheat have been larger than the previous week—nearly double, receipts of Barley are decreased one-third, those of Oats have increased a little although they have long been so insignificant in amount as to be scarcely worth a comparison, while those of Potatoes have not been more than half those of the previous week. Receipts of Beans have doubled, those of Onions have increased a little, those of Hides have increased one-fourth, those of Hay have nearly doubled, as also have those of Middlings, while the receipts of Wool have also increased a little. Wine has not come so freely forward as the previous week, receipts having declined nearly one-third.

We summarize receipts of Bay Produce to date as Flour, 8,593 quarter sacks; Wheat, 120,850 centals; Barley, 15,698 do; Oats, 268 do; Rye, 100 do; Potatoes, 1,924 do; Beans, 1,191 do; Onions, 148 do; Hides, 1,298 do; Hay, 1,222 tons; Straw, 45 do; Cotton, 5 bales; Wine, 12,230 gallons; Corn, 89 centals; Bran, 857 do; Middlings, 431 do; Wool, 147 bales; Mustard Seed, 46 centals; Beet Sugar, 150 barrels.

Receipts of Wheat at Oakland Wharf have aggregated 31,000 centals, or 155 car loads.

Receipts of Domestic Produce from coast Ports this week have been as follows: Wheat, 595 centals; Barley, 6,424 do; Oats, 265 do; Rye, 28 do; Corn, 5,243 do; Beans, 583 do; Potatoes, 7,221 do; Mustard Seed, 1,857 do, a large quantity; Hides, 260; Wool, 130 hales; Peas, 11 centals; Flaxseed, 24 do; Beans, 53 do; Wine, 88 pipes.

Receipts of Domestic Produce from Oregon have included large quantities of Oats, 4,500 half sacks and 7,381 quarter sacks by the "Oregonian," and 998 sacks by the "Ajax." Other receipts have been 1,924 half sacks and 2,121 quarter sacks of Flour, 1,079 centals of Potatoes, 242 Hides, 464 centals of Onions, 1 bale of Wool and 1,812 boxes of Apples.

Barley.—Barley has weakened, the extra demand for shipping purposes not having continued well this week. We note sales of 1,150 sacks of Coast at $1.20, 2,000 do Coast at $1.22½, 200 do Coast at $1.25, 350 do Coast at $1.27½ and 900 do Bay Feed at $1.30.

Flour.—Flour has remained unchanged. Several large cargoes have been lately shipped, and have been bought for exportation, amongst them 2,000 by the "Clara Bell," for Manilla, and 7,000 barrels for Europe. The "Mariano" took a very large cargo for China. A small shipment to Central America was packed in a new and improved style. Exports have aggregated 292 barrels, 3,677 half sacks and 23,912 quarter sacks for Hong Kong, New York, Victoria, Panama, Ceutral America and Tahiti.

Hay.—We have had large receipts this week. We note sales of 200 bales of common at $13; 150 do good at $20; two cargoes of tame Oat, one at $18, the other at $21.50; one do Wild Oat at $20.

Hops.—There have been some few sales of Inferior Hops this week, but the market yet remains dull. Our quotations have not changed.

Oats.—Oats are very scarce, and are consequently firmer. We have had large receipts of Oregon, and they are about the only Oats at present in the market. We note sales of 600 sacks of Oregon at $2.15.

Potatoes.—Receipts this week of California have declined, but the shipment by the "Ajax" from Oregon has made the total receipts amount to 13,227 centals, nearly the same as the previous week. The tone of the market remains nearly the same as it was last week. We note sales of 2,000 sacks of Bodega and Petaluma at 75 cents to $1.00, and 2,000 do Humboldt at $1 to $1.10.

Wheat.—The Liverpool market has still continued to decline, the last report received by the Associated Press and the Merchants' Exchange being $2.79 to $2.83 per cental—a fall of 3 cents per cental. Nevertheless the local market has remained firm at last week's rates. Freights have again fallen to $18 22. Our receipts last week from all sources amounted to 153,445 centals. We note sales of 2,400 sacks of Coast at private rates; 8,000 do choice Coast at $1.77½ to $1.80; 9,900 do Shipping at $1.80; 200 do at $1.82½; and 2,000 do Milling and Shipping at $1.85.

Exports have again been rather large, including per "Cavalier," to Cork, 31,360 centals; per "Davy Crockett," to Liverpool, 45,793 do; per "Messenger," to Queenstown, 24,483 do; per "Theodore Ducos," to Cork, 13,675 do; per "Hannibal," to Liverpool, 36,532 do; per "Lady Gertrude," to Queenstown, 14,882 do; and per "Hermlt," to Queenstown, 22,846 do, making a total of 8 cargoes, containing 220,377 centals and valued at $413,060.

Wool.—The local market continues quiet. We note sales of 10,000 lbs Spring at 20 cents, and 57,000 lbs of last Spring and Fall, private. During the week ending March 14th sales took place in Boston, where 119,000 lbs of Fall brought 19 cents to 27 cents, 29,000 pounds 25 cents, 11,000 lbs 25 cents to 30 cents, and 3,000 lbs 27 cents.

GENERAL MERCHANDISE.

Business still continues dull, and our merchants are rather puzzled to assign a cause for it. It may, however, be referred to the drain of gold for Imports and for Wheat, the farmers not having yet begun to return it into the usual channels of trade. There are other causes too, but a statement of them would be too lengthy for this department of our paper. Rice remains about the same as last week. The local demand is light. Of Yellow Metal 60 cases were sold last week at 28½c. The Lumber market is quiet and a fall in prices is soon inevitable. The demand for Oils is firm. The market for Manufactured Iron and Hardware is beginning to be more brisk. There is a fair demand for Coal. Pig Iron is fair. Our exports last week were large, being sent away in 17 vessels and being worth $722.676.

FRUIT MARKET.

Supplies of apples and pears (principally Oregon) have been very large this week. Tahiti oranges are out of the market, but we have a sufficiency of Los Angeles. In general the market is well supplied with all fruits in season.

FRUIT MARKET.			
Tahiti, Or. ₱ 1000	—@—	Pears, ₱ lb	5 @ 6
Cal. do	20 —@15 —	Peaches, ₱ lb	10 @12½
Limes, ₱ M	10 — @15 —	Apricots, ₱ lb	— @—
Cal. Lemons, 1000	30 —@40 —	Plums, ₱ lb	5 @ 8
Bananas, ₱ bnch	2 —@3 —	Pitted, do ₱ lb	15 @18
Pineapples, ₱ dz	7 —@8 —	Raisins, ₱ lb	8 @12½
Apples, eat'g, bx	1 50 @2 50	Black Figs, ₱ lb	5 @ 6
" Cooking	1 25 @2 00	White, do	10½@—
Pears, Eating	2 00 @3 00	VEGETABLES.	
" Cooking	— @1 50	Cabbage, ₱ dz	50@1 00
Pomegran's, ₱ 100	— @—	Garlic, ₱ lb	6 @—
Grapes, Mission	— @—	Green Peas	5 @—
Rose of Peru	— @—	Green Corn ₱ doz	— @—
Blk Hamburg	— @—	Marrowfat Squash per ton	7 50 @—
Black Prince	— @—	Artichokes, ₱ lb	2 @ 3
Muscat of Al'r	— @—	Tomatoes, L. A. ₱	— @15
Flame Tokay	— @—	Tomatoes, S. F.	— @—
Black Morocco	— @—	String Beans, ₱ lb	— @—
Wine Grapes	— @—	Lima Beans	6 @ 7
DRIED FRUIT.		Peppers dry	20 @25
Apples, ₱ lb	7 @ 8	Okra	30 @33

DOMESTIC PRODUCE.

WEDNESDAY M., March 26, 1873.

BEANS.			
Beans sm'l white	4¾@ —		
do, butter	4¾@ —		
do, large, do	5 @ —		
do, bayo	3½@ —		
do, pink	4 @ —		
do, pea	5 @ —		
BROOM CORN.			
Per ton	$40@120		
DAIRY PRODUCE.			
Butter, Cal. fresh	— @ —		
do, ordin'y roll	25 @ 30		
do, choice	32½@ —		
do, new firkin	25 @ 28		
do, packed	— @ —		
do, New York	— @ —		
Cheese, Cal. new	12½@ 15½		
do, Eastern	15 @ 19		
Eggs, Cal. fresh	25 @ 27½		
do, Oregon	— @ —		
do, Eastern	— @ —		
FEED.			
Bran per ton	19 — @20—		
Middlings	26 00 @27 50		
Hay	15 00 @23—		
Straw	9 00 @10—		
Oil cake meal	30 00 @— —		
Corn Meal	3 00 @10—		
FLOUR.			
Alviso Mills, bbl	4 25 @5 75		
California	4 25 @5 75		
City Mills	4 50 @5 75		
Commer'l Mills	4 50 @5 75		
Golden Gate	4 50 @5 75		
Golden Age	4 50 @5 75		
National Mills	4 50 @5 75		
Santa Clara Mills	4 50 @5 75		
Geneva Mills	4 50 @5 75		
Oregon	4 50 @5 75		
Vallejo	4 50 @5 75		
Venus, Oakland	4 50 @5 75		
Stockton City	4 50 @5 75		
Lombard, Sac	4 50 @5 75		
FRESH MEAT.			
Beef, fr quality	8½@ 9		
do, second do	6 @ 7½		
do, third do	4 @ 5½		
Veal	9 @ 9½		
Mutton	6½@ 6¾		
Pork, undressed	— @ 6½		
do, dressed	8½@ —		
GRAIN, ETC.			
Wheat, Cal. coast	1 50 @1 80		
do, shipping	1 80 @1 82½		
do, milling	1 80 @1 90		
do, Oregon	— @1 85		
Barley, Dark O'st	— @1 25		
do, Light	1 27½@1 30		
do, Brewing	1 35 @1 40		
Oats, Coast	2 15 @ —		
do, Light	2 20 @ —		
Corn, White	1 30 @ —		
do, Yellow	1 27½@1 30		
Buckwheat	1 75 @ —		
Rye	2 25 @ —		
HOPS.			
California, 1871, lb	— @ —		
do 1872	50 @ —		
Eastern, 1872, lb	62½@ —		
MISCELLANEOUS.			
Beeswax, per lb	30 @ 45		
Honey, choice	10 @ 15		
Los Ang. Honey	30 @ —		
Onions	3 @ 5		
Flaxseed	— @ —		
Canary do	4 @ 5		
Mustard do, white	1½@ 2		
do, brown	2½@ 3		
Peas, Chili	25 @ —		
Alfalfa	35 @ —		
Ky. Blue Grass	50 @ —		
Timothy	35 @ —		
Italian Rye	18 @ —		
Perennial do	35 @ —		
NUTS.			
Peanuts per lb	4 @ 6		
Pecan nuts	18 @ 20		
Hickory do	12 @ —		
Brazil do	18 @ 17		
Coc'anuts, ₱ 100	10 00 @ —		
Alm'ds h'd shell	10 @ 12½		
do, soft	20 @ 25		
POTATOES.			
Sweet, per lb	¾@ —		
Humboldt	1½@ —		
Monterey	75 @1 00		
Tomales	80 @1 00		
POULTRY & GAME.			
Live Turkeys lb	19 @ 21		
Hens, per dz	8 50 @9 50		
Roosters	8 50 @9 50		
Chickens	7 00 @8 00		
Ducks, tame, doz	12— @13—		
Geese, per pair	3 00 @3 50		
Hare, per doz	2 50 @3 00		
Snipe, Eng., doz	2 00 @— —		
Venison, per lb	— @— —		
PROVISIONS.			
Cal. Bacon, per lb	11½@ 13½		
Eastern do	11 @ 13½		
do sugared	12½@ —		
Cal. Hams	12½@ 14		
Eastern do	15 @ 16½		
Cal. Smoked Beef	15 @ —		
WOOL, ETC.			
Choice Nor'n fall	17 @ —		
do spring	20 @ 22		
Seedy fall	10 @ 13		
Burry	10 @ 13		
Hides, dry	19½@ —		
do wet salted	9 @ 9½		
Tallow	7 — @7 50		

GENERAL MERCHANDISE.

BAGS.		**PAINTS.**	
Eng, stand. Wh't	15½@ —	Stand. Wh. Lead	— @ 12½
Flour Sacks ½s	16¼@ —	Whiteniug	— @ 2½
" " ¼s	8½@ 9¼	Chalk	— @ 2½
Stand. Gunnies	17 @ 17½	Paris White	— @ 3
" Wool Sacks	— @ 70	Ochre	— @ 3½
" Barley do	16 @ —	Venetian Red	— @ 3
Hessian 40-in. gds	— @ 12	Red Lead	— @ 11½
do 60	17 @ 17½	Litharge	— @ 11
CANNED GOODS.		**RICE.**	
Ass't'd Pie Fruits in 2½ lb cans	3 00 @ 3 25	China No. 1, ₱ lb	6½@ 7
do Table do	4 00 @ —	do 2, do.	5¾@ 6
Jams & Jellies	4 — @ 4 25	Japan	6½@ —
Pickles ½ gl	3 25 @ 3 75	Patna	6½@ 7
COAL.—Jobbing.		Hawaiian	8½@ 9
Australian	14 00 @ —	**SALT.**	
Coose & Bel. Bay	11 00 @ —	Cal. Bay, per ton	5 00 @15—
Seattle	11 00 @ —	Carmen Island	14 00 @30—
Cumberl'd, cks	25 00 @ —	Liverpool fine	24 @ —
do bulk	22 50 @ —	do coarse	19 00 @20—
Chile	— @ —	**SOAP.**	
Lehigh	18 20 @ —	Castile, ₱ lb	12 @ 12½
Liverpool	12 50 @ —	Local brands	5½@ 7
West Hartley	16 00 @ —	**SPICES.**	
Scotch	16 00 @ —	Allspice, per lb	— @ 18
Scranton	14 00 @ —	Cloves	27½@ —
Vancouver's Isl	12 50 @ —	Cassia	30 @ —
Charcoal, ₱ bk	1 00 @ —	Nutmeg	1 00 @ —
COFFEE.		Whole Pepper	22 @ —
Costa Rica per lb	19 @ —	Ground Allspice	25 @ 30
Guatemala	18½@ —	do Cassia	45 @ 50
Java	22½@ —	do Cloves	30 @ 35
Manilla	18 @ —	do Mustard	30 @ 32½
Ground in cs	27½@ —	do Ginger	25 @ 30
Chicory	8 @ —	do Pepper	25 @ 30
FISH.		do Mace	1 50 @1 75
Pac. Dry Cod, new bundles, ₱ lb	8 @ 8½	do Coffee	25 @ —
Eastern Cod	8½@ 9	**SUGAR, ETC.**	
Salmon in bbls	8 00 @— —	Cal. Cube per lb	12¼@ —
do ½ bbls	4 50 @5 00	Circle A crushed	12¼@ —
do 2½ lb cans	— @— —	do granulated	11¾@ 12
do 2lb cans	— @— —	Golden C	10 @ —
do 1lb cans	— @— —	Hawaiian	20 @ 22½
Pick. Cod, bbls	— @— —	Cal. Syrup in bls	52½@ —
do ½ bbls	— @— —	do in ½ bls	55 @ —
Pug. Sd. Smok'd	— @— —	do in kegs	60 @ —
Herr'g, bx	— @ 50	**TEA.**	
Mack'l, No. 1, ½bls	9 50 @12 00	Oolong, Canton	19 @ 25
" Extra	— @14 00	do Amoy	23 @ 50
" in kits	2 00 @3 00	do Formosa	40 @ 80
" mess	— @3 00	Imperial, Canton	25 @ 35
" ex. mess	— @4 50	do Pingsuey	45 @ 80
NAILS.		do Moyune	60 @1 00
Assorted size	5½@ 8 —	Gunpo'der, Cant.	30 @ 42½
OILS.		do Pingsuey	60 @ 90
Pacific Glue Co.		do Moyune	65 @1 25
Neat F't No. 1	— @ —	Y'ng Hy., Canton	23 @ 40
Pure	1 25 @ —	do Pingsuey	40 @ 70
Castor Oil, No 1	1 35 @1 40	do Moyune	65 @ 85
do do No 2	1 25 @1 30	Japan, ½ chests, bulk	30 @ 75
Cocoa Nut	10 @ —	Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Olive Plagniol	5 00 @ —	Japan do, 3 lb hxs	45 @ 90
do Possel	4 75 @ —	do pl'n bx, 4½ lb	35 @ 65
Palm	9 @ —	do ½ & 1 lb paper	30 @ 55
do Bagicalupi	— @ —	**TOBACCO—Jobbing.**	
Linseed	1 05 @1 10	Bright Navys	52½@ 60
China nut in cs	75 @ 80	Dark do	50 @ 55
Sperm, crude	1 25 @ —	Dwarf Twist	60 @ 65
do bleached	1 90 @ —	12 inch do	60 @ 67½
Coast Whales	40 @ 45	Light Pressed	65 @ 75
Polar, refined	55 @ —	Hard do	60 @ 70
Lard	95 @ —	Conn. Wrap'r	40 @ 50
Coal, refined Pet	40 @ 42	Penn. Wrapper	35 @ 45
Oleophine	40 @ —	Ohio do	30 @ 40
Devoe's Bril't	44 @ 46	Virgi'a Smok'g	60 @ 95
Long Island	42 @ —	Fine cut chewing, buc'ts	75 @ 90
Eureka	42½@ —	Fine cut chewing, ₱ lb	75 @ 90
Downer Kerose'e	55 @ —	Banner fine cut	9 25 @ —
Gas Light Oil	42 @ —	Eureka Cala	8 50 @ —

San Francisco Metal Market.

IRON.—			
Scotch Pig Iron, ₱ ton	$60 00	@	—
White Pig, ₱ ton	60 00	@	—
Refined Bar, bad assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06¾
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	
Nail Rod	10½	@	
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½@		9½
COPPER.—			
Braziers	— 35	@	— 38
Copper Tin'd	— 50	@	— —
O. Nails Pat	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29	@	— 30
Composition Bolts	— 29	@	— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50	@	14 —
Roofing Plates	13 00	@	13 50
Banca Tin, Slabs, ₱ lb	— 40	@	— 42½
STEEL.—English Cast, ₱ lb	— 20	@	— 25
Drill	20	@	— —
Flat Bar	22	@	— —
Plough Points	16	@	— 17
Russia (for mould boards)	17	@	18
ZINC	9¾	@	10
Zinc Sheet	— 9	@	— 10
NAILS—Assorted sizes	— 5½	@	— 9

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality, M	30 00
Rustic, ₱ M	— 35 00	Laths, ₱ M	4 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref. M	18 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half-inch, Surfaced, M	25 00	Half inch Surf. ref., M	18 00
Half inch Battens, M	22 50	Do do refuse, ₱ M	27 50
Pickets, rough, ₱ M	14 00	Half-inch surfaced, M	40 00
Pickets, rough, p'ntd	16 00	Rustic, ₱ M	42 50
Pickets, fancy, p'ntd	22 50	Battens, ₱ lineal foot	1
Shingles, ₱ M	3 00	Shingles ₱ M	3 50

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, March 26, 1873.

The price of sole leather continues the same. French Calf Skins still have an upward tendency, with prospects of a further advance.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Lemoine, 16 to 18 Kil., ₱ doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 87 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	68 00@ 72 00
Ogeran Calf, ₱ doz	54 00@
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 8 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	2 @ 26
Wax Side Leather, ₱ foot	20@
Eastern Wax Leather	26

San Francisco Retail Market Rates.

WEDNESDAY NOON, March 26, 1873

FRUITS, VEGETABLES, ETC.

Apples and Pears are in medium supply. Oranges and Lemons are plenty. Strawberries are just coming in. Mushrooms are very scarce. Of vegetables generally the supply is good.

Apples, pr lb	5	@ 12½	Carrots, ₱ doz	—	@ 20
Pears, per lb	5	@ 15	Celery, ₱ doz	75	@ —
Apricots, ₱ lb	50	@ 62½	Cucumbers, ea	25	@ —
Pine Apples, each	50	@1 00	Tomatoes, ₱ lb	25	@ —
Bananas, ₱ doz	50	@ 75	Green Peas	8	@ —
Canteleups	—	@ —	String Beans	20	@ —
Watermelons	—	@ —	Oress, ₱ doz bun	—	@ 20
Italian Chestnuts	50	@ —	Dried Herbs, ₱ lb	25	@ 35
Cal. Walnuts, lb	20	@ —	Garlic	10	@ —
Cranberries, ₱ g	—	@1 00	Green Corn, doz	—	@ —
Strawberries, lb	75	@ —	Lettuce, ₱ doz	20	@ 35
Raspberries, lb	—	@ —	Mushrooms, ₱ lb	25	@ 50
Gooseberries*	—	@ —	Horseradish, ₱ lb	20	@ 25
Cherries, ₱ lb	—	@ —	Okra, dried, ₱ lb	50	@ —
Oranges, ₱ doz	50	@1 00	do fresh, ₱ lb	—	@ —
Limes, per doz	35	@ 50	Pumpkins, ₱ lb	3	@ 4
Figs, dried Cal.	10	@ 25	Parsnips, doz	20	@ 25
Figs, Smyrna, lb	25	@ 35	Parsley	15	@ 20
Asparagus, lb*	6	@ 10	Asparagus, ₱ gal	50	@ 75
Artichokes, doz	50	@ 75	Radishes, doz	20	@ —
Brussel's sprts, *	10	@ 15	Summer Squash	—	@ —
Beets, ₱ doz	20	@ —	Marrowfat, do	3	@ 4
Potatoes, New ₱ lb	6	@ 6	Hubbard, do	3	@ 4
Potatoes, sweet,*	2	@ 3	Dry Lima, shl	8	@ 10

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Stock Notices.

H. B. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.

GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. ml5-tf

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO,



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

GREAT JOINT SALE

—OF—

SHORT-HORNS

AND

COTSWOLD SHEEP,

consisting of the

ENTIRE WOODLAWN HERD

Of Wm. B. Dodge, and a large draft from the

GLEN FLORA HERD

At WAUKEGAN, ILLINOIS, on

Wednesday, April 9th, 1873.

The subscribers announce that they will hold a public sale, at WAUKEGAN, ILLS., WEDNESDAY, April 9th, 1873, of **90 Head** of highly and fashionably-bred **Short-Horn Cattle**, and **100** pure-bred **Cotswold Sheep**, mostly imported, being the entire Woodlawn herd of WM. B. DODGE, and a large number of the most desirable animals from the Glen Flore herd, of the Glen Flora Stock Breeding Association.

Among the animals to be sold are

MAZURKAS,
LADY CLARKS (Miss Wileys),
JUBILEES,
MINNAS,
CONSTANCES.

Also, several other noted animals, including **Henrietta, Lady Brough, Countess of Oxford, Pattie Moore** and **Flattery 4th,** the get of the noted Minister, the prize bull Scotsmen, etc.

We have no hesitation in saying that we believe this sale will comprise the largest collection of first-class stock—show animals and prize winners on both sides of the Atlantic—ever offered in this country at public sale.

Terms of Sale:

Six months time will be given on approved endorsed notes (interest at rate of six per cent. per annum). For cash in hand a discount of 5 per cent. will be allowed.

Waukegan is 35 miles north of Chicago, on Milwaukee Division of N. W. R. R. Trains leave Chicago at 8 A. M. and 9.45 A. M., and return in time for all trains leaving Chicago that evening.

Sale will commence at 10 o'clock, A. M., SHARP.

For Catalogues, giving full description, pedigrees, etc., address either of the undersigned.

WM. B. DODGE,
C. C. PARKS, Pres't.

Waukegan, Lake Co., Ills.

☞ On the day following, a public sale, from the **SLAUSONDALE HERD,** of GEO. MURRAY, Esq., will be held at Recine Junction, Wis., 25 miles north of Waukegan. mr1-eow3t

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CALIFORNIA THOROUGHBRED

Cattle Breeders' Association.

A meeting of the above named Association will be held in the Hall of the Young Men's Christian Association Building, at San Francisco, on

Tuesday, April 1st, at 3 P. M.

All persons, breeders of Thoroughbred Cattle in this State, are cordially invited to attend, or to send in their names for membership to either of the undersigned.

G. N. SWEZY, Secretary,
Marysville, Yuba County.

WILFRED PAGE, Treasurer,
P. O. Box 1296, San Francisco.
ma22-2t

---

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

---



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

---

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough-bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,
fe15-2m Oroville, Butte County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS." —*Alexander.*

"You get no FIGS from THISTLES."—*Old Proverb.*

I have 30 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.
Office and Rooms, at the Morton House, Post street.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down

SHEEP.





—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v6-tf Hollister, Monterey County, Cal.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
5v3-eow-tf California.

PURE BLOOD & GRADED ANGORA GOATS

16 Pure Blood Bucks and Ewes.

250 Grades—all Ewes.

They are ¼, ⅜ and ⅝ Grades.

100 Kids, of both Sexes, Graded.

I will sell the above at low prices. Address, soon,

JOHN DONALD, San Mateo, Cal.
12v5-tf

WILDER'S

CONSTITUTION POWDER,



FOR HEAVES, STAGGERS, FITS, COLIC, LUNG FEVER, COLDS, COUGHS,

And used with great success for the

EPIZOOTIC.

Wilder's Fox Ointment,

For Spavins, Curbs, Splint, etc. Send for circular containing reference.

Money refunded if satisfaction is not given.

DUTTON & JAMESON, Sole Agents,
11v5-tf 306 Market street, San Francisco.

EPIZOOTIC, YIELD!

Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H. H. H. Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

WILLIAMS & MOORE, Proprietors,
Stockton, Cal.
For sale everywhere. 12v5-3m

Nursery Notices.

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine assortment of

Ornamental Shrubs?

Then call at the

BELLE VIEW NURSERY,

Telegraph Road.....OAKLAND.

2v5-3m S. NOLAN, Proprietor.

Bay Nursery,

[Established 1852.] OAKLAND, CAL.

Office and Depot..... .....Broadway and Thirteenth.
Nursery and Greenhouses, Telegraph Avenue, East Side.

THE LARGEST COLLECTION OF

Evergreen Trees, Ornamental Shrubs and Flowering Plants

On this Co Comprising in part Cape Jasamines, Camellias, Azaleas, Magnolias, Araucarius, Weeping Cedars, Golden Arbor Vitæs, etc., etc.

My collection of Fuschias, Carnations and Roses are unrivalled. Many new and rare Plants recently introdnced of rare merit. Tube Roses, Dalilias and Bulbs in great variety. Choice Flower Seeds, Garden and Lawn Seeds, fresh and genuine.

1v5-3m JAMES HUTCHISON.

THE OLD

Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL DECIDUOUS GREEN and FRUIT AND EVERGREEN SHRUBS; also a large assortment of Choice Greenhouse Plants, Flowers and Bulbs, too numerous to mention. Garden, Grass and Flower Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,
12v3-tf Washington street, Brooklyn, Cal.

EXTRAORDINARY NOVELTY!!

NEW JAPAN PRIMROSE!

The Greatest Acquisition of the Day.

Perfectly hardy in England. So pleased were we with a few plants which flowered with us last season, that we at once engaged a large stock from Europe—and we are enabled to offer them at $1 each, by Mail, postpaid. Orders Received Now, to be filled in rotation after April 1st.

Prices to the Trade on application. Send for Catalogues.

Address,
Establ'd 1840. ELLWANGER & BARRY,
Mount Hope Nurseries, ROCHESTER, N. Y.
12v5-2m

RAMIE, RAMIE.

THE LARGEST STOCK IN THE STATE AT

H. ALLEN'S NURSERY,

Cor. McAllister and Buchanan Sts., San Francisco.

Being Agent for the Pacific Ramie Co., and having the largest stock in the State, is enabled to offer extra inducements to purchasers. Orders left at Collie & Stewart's, 18 Post street, or addressed direct to H. Allen, corner McAllister and Buchanan streets, will be promptly attended to. fe22-3m

RAMIE PLANTS AND CUTTINGS

For Sale.

IN QUANTITIES, at the LOWEST MARKET RATES.

Inquire of J. P. SWEENEY & CO.,
Seedsmen,
409 DAVIS STREET, S. F.,

Or, JOSEPH GRAHAM, Haywards, Alameda County.
1zv5 2m

Superior Fruit Trees, Shrubs, Flowers, Etc.

The undersigned has continually on hand a large assortment of finest FRUIT, SHADE AND ORNAMENTAL TREES, FLOWERS, SHRUBS, POT PLANTS, etc., of the most varied and choice description, which he sells at lowest rates. Trees and Plants securely packed to travel any distance. T. CORLEY,
2v5-3m No. 315 Washington st., San Francisco.

50,000

Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

Address JAS. T. STRATTON,
23v4-5m Brooklyn, Cal.

20,000 MONTEREY CYPRESS TREES,
5,000 BLUE GUM,
3,000 ROSES (Choice Varieties),
And a general assortment of Nursery Stock.

E. GILL, Twenty-eighth street,
2v5-3m Near San Pablo Road, OAKLAND.

Our Seedsmen.

Seeds! Seeds!!

By W. R. STRONG,

8 and 10 J St., SACRAMENTO.

My stock of Seeds this season is larger and in greater variety than can be found elsewhere on the Pacific Slope, and of the last season's growth.

Garden, Flower and Field Seeds;

ALSO,

FRUIT, SHADE, FOREST and EVERGREEN TREE and SHRUB SEED.

Trees and Tree Seedlings, Fruit, Timber and Ornamental, supplied at the very lowest rates, from the largest and best nurseries here and in the Eastern States. "The Evergreen and Forest Tree Grower," published at the East, will be mailed free for one year to all purchasers of seeds, etc., to the amount of five dollars and over, who wish it.

Vick's Flower Seeds, Bulbs, Chromos and catalogues on hand and supplied at strictly his rates.

Seeds and small seedlings forwarded by mail to any part of the United States. My catalogues are now ready, and furnished free on application. [3v5-2m

New York Seed Warehouse.

Established in 1852.

R. J. TRUMBULL,
[Successor to O. L. Kellogg]
Wholesale and Retail Dealer in



The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSKMELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v5-2m

SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds.

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure Kentucky Blue Grass, Red Top, Rye Grasses, Orchard Grass, Timothy, Alfalfa, White, and Red Clover Seed,

Mesquit Grass Seed.

Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.
Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

Rustic and Wire Baskets, Flower Stands, Fruit and Ornamental Trees, Etc,

AT THE OLD STAND.

Send for Catalogues. E. E. MOORE,
425 Washington street,
14v4-3m San Francisco, Cal.

A. H. CUMMINGS. M. T. BREWER. J. F. FARNSWORTH.

SEEDS—1873—FRUIT.

A. H. CUMMINGS & CO.,

30 and 32 J Street, · Sacramento.

GARDEN AND FLOWER SEEDS,
FRUIT TREES AND SHRUBS,
CLOVER AND GRASS SEEDS.

Seeds forwarded by mail if desired.

All kinds of FRUIT AND NUTS, also HONEY, constantly on hand and for sale at lowest market rates.

Large invoices of Eastern and European Garden and Flower Seeds, just received.

mr1-3m A. H. CUMMINGS & CO.,

ALFALFA, ALFALFA!

10 TONS CHOICE ALFALFA. ALSO FRESH LOT BLUE GRASS, RED TOP, RYE GRASS, RED CLOVER, TIMOTHY, ORCHARD AND MESQUIT GRASS, ETC.

All of fine quality, and for sale, in lots to suit, at market rates.

E. E. MOORE,

Seedsman and Florist,

425 Washington Street, San Francisco, Cal.
m8-1m

H. K. CUMMINGS, 1858. H. H. RALSTON, 1873.

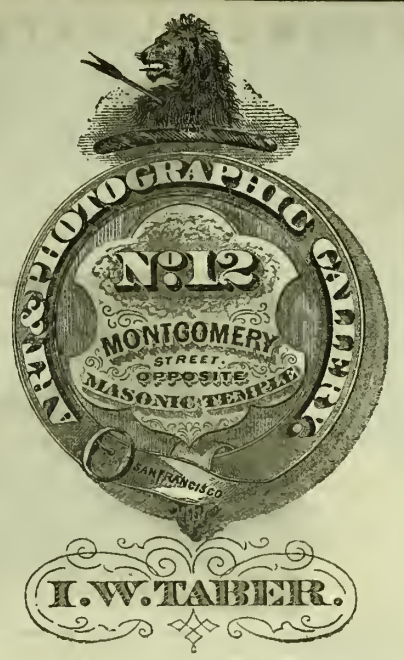
HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.
4v23-1y



I. W. TABER.

12v5-f

JAS. G. STEELE & CO.,

Chemists and Apothecaries,

521 Montgomery street,

Between Commercial and Clay, San Francisco, Cal.

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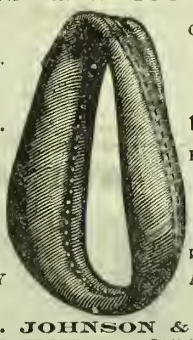
IN ALL KINDS OF PURE DRUGS AND CHEMICALS Genuine Patent Medicines, Trusses, Colognes. Perfumes Soaps, Hair Oils, Pomades, Fancy Goods, Sponges, Brushes, Combs, etc.

Those Goods are new and fresh, of the best qualities, and will be sold at very low prices. Please call and examine the stock, before purchasing elsewhere.

Physicians' Prescriptions compounded with great care and accuracy, at all hours of the day and night, and none but the best articles used in their preparation. Prices moderate.

☞ Our friends and customers residing in the country will find it for their advantage to order from us. Goods sent by Express to any part of the United States.

Farmers and Merchants,



Examine our HORSE COLLARS. Adopted by **BEST IN USE.** All Grades. No complaints. No repairing. Don't believe FOR SALE BY Manufactured only by

COPPER RIVETED Pat. Nov., 1861. U. S. Army. **18,000 SOLD.** Heavy & Light. No ripping. Examine for yourselves. prejud'd parties. ALL DEALERS

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104 FRONT STREET, SAN FRANCISCO.
Dealers in **Harness, SADDLERY, Leather, etc.**
Liberal discount to the Trade. 19v4-3m

San Jose Institute

AND

BUSINESS COLLEGE.

A Day and Boarding School for both sexes; the only Institute on the Pacific Coast where a thorough Academic and business education can be obtained.

The Business College Department

Is under the supervision of James Vinsonhaller, who for many years was at the head of Business Colleges of San Francisco.

The Twenty-Second Session commenced January 20th, 1873.

For circulars address

fb22-3m MRS. A. M. GATES, or JAMES VINSONHALLER.

Agents Wanted for the New Book,

Underground Treasures—How and Where to Find Them,

A KEY FOR THE READY DETERMINATION

Of all the Useful Minerals within the United States.

BY JAMES ORTON, A. M.

☞ A work of rare value to every person, and worth ten times its cost. Price only $1.50.

Send for full descriptive circular to

F. DEWING & CO.,
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LANDS, FARMS, ETC.

Parties wanting to sell would do well to send us a description of their property.

☞ WE MAKE NO CHARGE unless we EFFECT SALES.

We have 500 Farms and over 600,000 Acres of land for Sale.

Address BRANDON & BIBBINS,
Pacific Land Exchange,
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Working Class, MALE OR FEMALE, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 173 Greenwich st., N. Y.
11v5-24t

POULTRY.

☞ I offer to the public—

Eggs from the Finest Imported Fowls

IN THE UNITED STATES.

Light and Dark Brahmas,
Spangled Gold and Silver Hamburghs,
Spangled Gold and Silver Polish,
Houdans, Buff Cochins, Silks, Black Spanish and Games.

M. FALLON,
Importer and Breeder of Choice Poultry,
Seventh and Oak streets, Oakland.
5v5-3m

EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

Extra Fine Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,
6v5-2m Lock Box 1874, San Francisco, Cal.

Imported Fowl of All Choice Breeds,

ALSO EGGS FOR HATCHING,



From all the different varieties; packed carefully to send any distance.

ALBERT E. BURBANK,

Stalls, 43 and 44, California Market,

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FANCY POULTRY,

Of all Choice Breeds.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
6v5-3m Stalls 103 and 104 California Market, S. F.

THE

PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by Dewey & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

FOR SALE—6,300 Acres of Land for Sale,

Situated on the south side of Merced River, opposite Snelling's, and having a river frontage of one and three fourths of a mile on said river. 1,000 acres are agricultural land; all of it is good sheep range; 250 acres are bottom land, which is all irrigated by ditches belonging to the land; which is divided into small fields, partly with good, live fences; 100 acres are in Alfalfa, 20 acres in Vines, 12 acres in Orchard; has a wine house with running water, and grapes of thrifty young trees for fuel. Also, 2,700 Sheep, including 1,800 grown Ewes, mostly three years old and younger.

Apply to GEORGE REED,
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Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hiberuia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,
Manufacturers of and Dealers in



Monuments, Headstones, Tombs,
MANTEL PIECES, ETC.,
421 Pine street, between Montgomery and Kearny, San Francisco.
21v2-1y

Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

Carpets, Oil Cloths and Upholstery Goods,

IS AT

SCHLUETER & VOLBERG'S,

14 Third Street,.....Three doors from Market,

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WILCOX'S

IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most Economical of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

TEACHER.

A lady, a good musician and teacher of the piano, French and English, wishes a situation in a family. Best recommendations. Address, with terms, etc., M., at this office, 338 Montgomery st. It

Buyers' Directory.

Under this head will be found the names and address of some of our most enterprising and reliable business men.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission. 501 Sansome st., N. W. corner Clay.

Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Atlantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

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A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 724 Market st., S. F.

I X L Plating Works, 715 Mission street, San Francisco. Table Ware re-plated to look like new. Table Spoons, Forks and Knives three dollars per dozen. If sent by Express, will be returned C. O. D.

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Common Furniture, Bedding and Upholstery Goods, No. 725 Market street (Bancroft's Building), San Francisco.

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Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns cut, and Teacher of her system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 34 Third St. JOHN D. GODEUS, Proprietor.

Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

R. D. Mowry, Poultry and Game Dealer, Wholesale and Retail Dealer and Commission Merchant. Stalls 103 & 101 California Market. Orders solicited and promptly delivered free in the city.

Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. List and Rag Carpets for sale. Send for Circular. Address, ALEX. MACKAY.

The White Stall.—E. O. Andrews & Co., Retail Dealers in Butter, Eggs, Cheese and General Assortment of Fancy Groceries, No. 23 Occidental Market, San Francisco. feb22-3m

Van Duzer & High, Commission Merchants, and Dealers in Butter, Cheese, Eggs, Poultry, Hides, Tallow, etc., No. 502 Merchant's row, San Francisco.

San Francisco Wire Works, 665 Mission St., S. F. C. H. Gruenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

A. Galli & Co., General Commission Merchants and dealers in Country Produce, Vegetables and Fruit, 509 Sansome S., San Francisco. Special attention paid to Shipping Orders. P. O. Box 1082

Fred. C. Warner & Co., General Commission Merchants, No. 21 Metropolitan Market, San Francisco. Hams, Bacon, Butter, Eggs, Cheese, etc., sold on Commission.

A. Lusk & Co., Wholesale Commission Dealers in California and Oregon Fruits, Oranges, Lemons, and all kinds of Canned and Dried Fruits, etc. Pacific Fruit Market, Clay st., below Montgomery, S. F.

CAUTION!

To Lovers of Fine Poultry.

Certain parties in this city having represented that they are agents for the sale of my thoroughbred Poultry and Eggs, and that they sell from my yards in Oakland. I hereby give notice that I employ no agents, and deal directly with my patrons, any assertion to the contrary being entirely false.

GEO. B. BAYLEY,
Importer and Breeder of Thoroughbred Poultry,
12v5 BOX 659, SAN FRANCISCO.

DEVON STOCK FOR SALE.

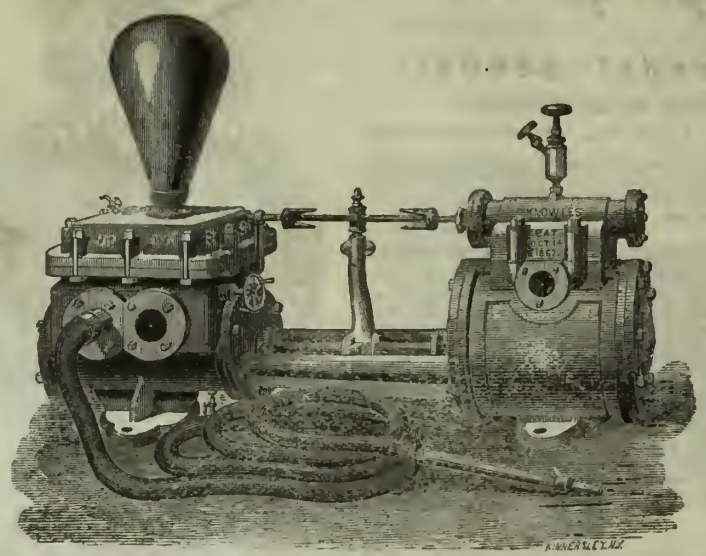
A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character



From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the ranch of J. J. FELT,
an25-3m16p Three Miles from Menlo Park.

KNOWLES' PATENT STEAM PUMP.



It has no Cranks or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a starting-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R., OFFICE OF THE GEN'L MASTER MECHANIC,
SACRAMENTO, Cal., January 14, 1874.

A. L. FISH, Esq., Agent of the Knowles Steam Pump, San Francisco—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump, in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other. Yours truly, A. J. STEVENS, General Master Mechanic.

U. S. NAVY YARD, NEW YORK, June 3, 1871.

MESSRS. KNOWLES & SUDLEY, 92 and 94 Liberty street, New York—Gentlemen: In reply to your note of 31st, requesting my opinion of your Steam Pump, etc., as suggested from my experience with them in actual service, I have to state that I have used your pumps, and entertain the most favorable opinion of their great merit and usefulness, and for every purpose believe them to be superior to any others, and have so recommended and adopted them. They have given complete satisfaction in all cases that have come under my observation.
Yours very respectfully, WM. W. W. WOOD.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiries, we state that the highest award for Steam Pumps at the Eighth or last Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to the Knowles Patent Steam Pump, as published in the Official List September 23d, 1871.
A. S. HALLIDIE, President Board of Managers.
W. H. WILLIAMS, Sec'y Board of Managers Eighth Industrial Exhibition, M. I.

WE BUILD AND HAVE CONSTANTLY ON HAND

The Largest Stock of Pumps in the World,

And for Every Conceivable Purpose.

THE CELEBRATED BOOMER PRESS,

For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

A. L. FISH, Agent,
Nos. 9 and 11 First Street, San Francisco, Cal.

P. S.—All kinds of new and second-hand Machines on hand. 10v26 lambp

WIRE AND PICKET FENCE.



The expense of fencing is a great drawback to the agriculture of California, and it is a matter of interest to the farmer to know how he can inclose his fields with a substantial and durable fence at the least possible cost. The above cut represents a fence which we think for general farm use is preferable to any and all others. Three men can easily put up six hundred yards of this fence per day. The cost of wire is about twenty cents per rod. The cost of pickets depends much on the locality. One of our correspondents, speaking of his fence which is built on this plan, says it is horse high, bull strong and pig tight—and cost him less than any other fence that would answer the purpose. We will send a descriptive circular, with full particulars, to any one who may feel interested in our fence.
WEBSTER & CO.,
eow2t No. 17 New Montgomery street (under Grand Hotel), San Francisco.

RAMIE PLANTS FOR SALE.

From 50,000 to 100,000 First-class Plants at $50 per thousand.
Orders addressed to
THOS. MEHERIN,
516 Battery street, directly opposite Post Office,
San Francisco,
Will be promptly attended to. m29-1m

ARCHITECT J. J. NEWSOM, No. 430 MONTGOMERY ST. S.F.

THE NEW U. S. MINING LAWS.

The new Laws of 1872, governing the location and purchase of Placer and Quartz Mines and Agricultural Lands in Mining Districts of the U. S., printed in circular sheet, for sale at this office. Single copies, 25 cts. Usual discount to the trade.

EGGS FOR HATCHING

FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.

Pouters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to THOS. E. FINLEY, Manager,
California Stock and Poultry Association.
OFFICE—No. 113 Leidesdorff street, S. F. 5v5

EXTRAORDINARY NOVELTY!!

NEW JAPAN PRIMROSE!

The Greatest Acquisition of the Day.

Perfectly hardy in England. So pleased were we with a few plants which flowered with us last season, that we at once engaged a large stock from Europe—and we are enabled to offer them at **$1 each, by Mail, postpaid.** ORDERS RECEIVED NOW, to be filled in rotation after April 1st.

Prices to the Trade on application. Send for Catalogues.

Address,
Estabi'd 1840. **ELLWANGER & BARRY,**
Mount Hope Nurseries, ROCHESTER, N. Y.
12v5-2m

SEASONABLE SEEDS

At Reduced Prices.

The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
Yellow Globe.	Long Red.

All Imported Seeds.

—ALSO—

Grass and Clover Seeds.

Timothy,	English Rye Grass,
Red Top,	White Clover,
Kentucky Blue Grass,	Red Clover.

ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

GEO. F. SILVESTER,
No. 317 Washington Street,
6v2-1y16p SAN FRANCISCO.

TO FARMERS AND RANCHMEN.

Improve the Breed and increase the Size of your

TURKEYS.



Try the Cross of the Bronze Turkey

WITH YOUR COMMON STOCK.

I am breeding from fowls weighing 64 pounds to the pair, and have for sale a few Gobblers and pairs.
Orders for eggs received now.

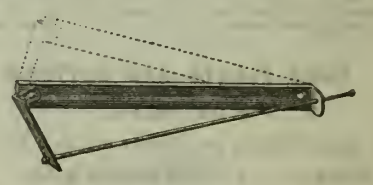
A Bronze Gobbler running with ordinary Hen Turkeys, will make a difference, in a brood of twelve young Turkeys, of **five pounds each,** that is **sixty pounds,** worth, at 25 cts, per lb., **fifteen dollars,** besides a much greater percentage of the young reaching maturity, owing to the extreme hardiness of this breed.

Give them a Trial. Perfect Satisfaction Guaranteed.

☞ Send for a Circular to

GEO. B. BAYLEY,
Importer and Breeder of Choice Fowls,
12v5-tf Box 659 San Francisco.

Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.
Orders solicited. Address WM. S. MURPHY,
N. E. cor. Drumm and California sts., S. F.
JAS. T. ISH, Proprietor. 13v5eow tf

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.
Office, 3 and 5 Front street.
Works, King street, bet. Second and Third. fe15-eow

Lewis & Pander, Dealers in Stoves, Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 22 Geary st., between Kearny and Dupont, S. F.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, APRIL 5, 1873. [Number 14.

Agricultural and Mechanical College of Kentucky University, at Lexington.

[From Agricultural Report of 1870.]

This College has now been in successful operation nearly five years, and we notice with interest the increasing prosperity of this, the first college organized under the act of Congress appropriating lands for the endowment of Industrial Colleges.

The library of the university contains 10,000 volumes. Whole number of students during the year, 819; of these, 300 were in the Agricultural and Mechanical College.

Students are permitted to receive instruction, without extra charge, in any of the classes of the College of Arts, enabling them to study Latin, Greek, etc., and to obtain a thorough classical as well as scientific education.

The success of the institution is mainly due to the indefatigable exertions of the regent, J. B. Bowman. In reviewing his annual reports we notice the steady development of his plans for continued improvement. Devoting his life, fortune, and energies to the cause of education, it is not surprising that this young institution has made so rapid advancement, and that it now ranks among the very first of its class in the country. The corps of professors numbers more than thirty, many of them distinguished and experienced educators and men of high attainments.

The Agricultural Department.

The college farm is located on the beautiful estate of Ashland, the homestead of Henry Clay, purchased for the purpose of education by Mr. Bowman, the founder and regent of the University.

Practical instruction in agriculture is given in two departments, the compensated and uncompensated, choice of which is left to the student. The labor on the farm, in the garden and in the mechanical shops is almost entirely performed by the students, where they are required to work two hours daily without pay, except those wishing to pay a portion of the expenses of their education by their labor, who are paid five to ten cents per hour during the first year, and ten to twenty cents during the second and third years, according to the labor performed.

Many of the students pay a large part of the expense of their education in this way. The labor is performed under the direction of superintendents skilled in their business. By adopting a club system of boarding, students have reduced their entire annual expenses to about $100 each.

Petroleum.—A Parliamentary map of 1771, to be found in Kahn's travels in North America, has upon it an X marking a spot lettered petroleum. Yet nearly a century passed before attention was directed to searching for this valuable natural production.

The Epizooty.

This disease among horses is steadily but surely approaching us, admonishing horse owners to be more than usually careful in the care of their animals, and relaxing the labor imposed upon them on the first indications of attack. We call the disease the Epizooty, because the dictionaries tell us that, Epizooty is a generic name for those diseases of animals which manifest a common character, and prevail at the same time over considerable tracts of country.

Like epidemics they appear to depend upon some peculiar and not well ascertained atmospheric causes; where cases are neglected or overcrowded, they also frequently become contagious. They are apt to take on a low type of fever, and are better treated by supporting than by reducing remedies. The disease is the Epizooty; which in the grammar of our language is a noun; an animal affected with it, is said to be Epizo-otic, which is an adjective; thus, an Epizo-otic horse.

As an index to such articles as have appeared in the Press on the treatment of the disease etc., we refer the reader to pages 273 and 293, Nov. 2d and 9th of 1872, Vol. 4. And to pages 33, 97, 102, 115 and 168, Jan. 18th, Feb. 15th and 22d and March 15th of 1873, Vol. 5, the present one.

Epizooty in Los Angeles. — A telegram of April 1st, indicates that the horse disease is passing away slowly; the worst cases seem to be improving. Ox-teams brought in 500 bars of base bullion from Cerro Gordo, where the disease seems to be worse than in any other part of this section of the State. It is rumored that cattle in this vicinity are afflicted with a mild type of the disease.

The Spring wool-clip is fully up to the average.

The weather continues warm and dry.

Important.—The Farmers' Union will meet at the Mechanics' Institute, San Francisco, at 2 o'clock P. M., April 9th.

Farmers' Union.

On Wednesday next, April 9th, will assemble in San Francisco, one of the most important conventions of men ever assembled in this State. Important, not for its political significance — at least not for the present — but for its action in behalf of momentuous interests that pertain to the welfare of the hard-palmed men of the soil, large-hearted and confiding, to that degree that the arrogance and cupidity of heartless moneyed speculators have been tempted to take undue advantage of the power that capital always gives, till now, we find them heartless — ready and willing, and actually taking, not only all the profit upon, but the very bread itself from those who labor the hardest to earn it.

We hope the Convention will take the "bull by the horns," and if his arrogance cannot be curbed, then wring his neck. There are many weighty matters that will doubtless engage the attention of the Convention, among which we hope to see a strong and energetic movement in behalf of making San Francisco a Free Port. We want no port charges levied upon ships that come here to buy our grain or carry it to foreign markets; charges that when collected go to line the pockets of a horde of officials, that the State would be better off if they would exile themselves from the country.

We want free home trade and free city markets, the privilege — strange that we must ask it—of selling the products of our orchards, gardens and fields, when and wherever we can find purchasers; we don't want to be taxed, and ought not to be, for the support of any city corporation that its official cormorants may fatten.

To encourage manufactures, and all manner of industries, we must make living cheap in all our cities, towns and villages; this the farmers can do and will do, if they are not taxed to the death in the payment of license for permission to sell, or else that middlemen in countless numbers may make fortunes out of both producer and consumer.

We further hope the convention will not let the opportunity pass, of letting the world know its opinion on the subject of narrow-gauge or any other gauge railroads; that we want them built and run in and for the interests of those who produce the articles for transportation, instead of for those whose study seems to be, to see *how much* can be charged for transportation and not actually cause the article or product to be kept at home.

If our farmers are not able to build the roads, in consequence of the extortion heretofore practiced upon them by selfish transportation companies, then petition Congress that the Government build them, as great, common thoroughfares, where if needs be, the public can employ their own trains and cheaply convey their products to market either by railroad or canal, by paying a toll only sufficient to keep them in repair.

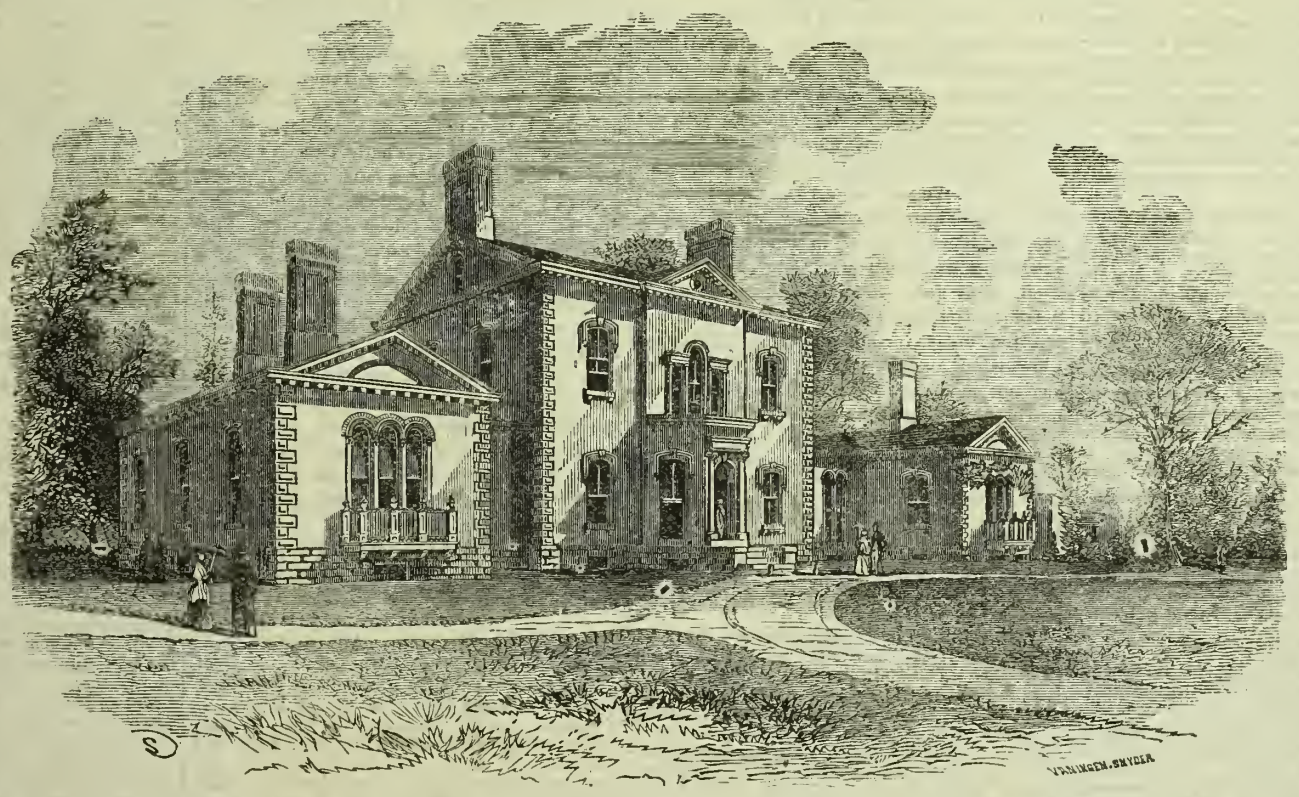
We believe the Convention ought also to make itself heard and its power felt, on the subject of taxing growing crops and mortgages, whereby double taxation accrues, to be paid by those who are compelled to borrow. We would tell the law makers of this State, that ere long other men will be found at the helm, unless this outrageous extortion is utterly and quickly abolished.

And we would, as connected with the law-making power, strongly intimate that unless the machine known as the State Legislature, is hereafter to be run more for the interests of the farmers of the State, than for its politicians and capitalists, that though San Francisco may have a fifth or even a quarter of the whole vote of the State, yet that the other three-fourths are out of it, and can and will ere long control its legislation.

There are several other important topics that we would like to see acted upon in Convention, and which will doubtless receive proper attention, as we have the fullest confidence in the ability, integrity and honor of those who will assemble as the representatives of the *real men* of our State, for the promotion of its highest interests.

Ripe Tomatoes. — We observe fresh, ripe tomatoes in Sansome street selling at 15 cents a pound. Strawberries are everywhere, but held too high for us poor editors to indulge in, and no one yet sends us a basket. They look well enough, but we don't think they are good for much, at from 40 to 50 cents a pound.

California Maple Sugar. — The Downieville *Messenger* makes mention of samples of maple sugar, made by Mr. S. York, from the sap of the maple growing in Slug Cañon, Sierra County, and predicts a considerable supply.



ASHLAND—Homestead of Henry Clay, now the Residence of J. B. Bowman, Regent of Kentucky University.

CORRESPONDENCE.

Letter from Niagara Co., N. Y.

EDITORS PACIFIC RURAL PRESS:—Eight months ago I bid adieu for a time to the genial climate and earnest people of California. At this late hour it is not my purpose to relate incidents of my travel across the Continent by railroad; but rather to give some thoughts suggested by the climatic changes through which I have passed, and the different circumstances by which I am surrounded.

After twenty-three years in California do I enjoy New York? Very well, I thank you, sir. I suffered much, it is true, from the excessive heat during July and August, though the frequent rains and thunder showers afforded a little temporary relief. I have suffered less from the cold than I had anticipated, though this has been a remarkably cold winter. The mercury has been below zero many times.

Four Months of Winter Frosts.

Winter fairly set in the 14th of Nov., and the morning of the 15th showed about six inches of snow. From that day to this the ground has never been bare. For full four calendar months sleighs have been used more or less every day; though a few times wagons were brought out, and in some limited districts may have been for a time in the majority. Now, the 15th of March, winter seems to be broken, though the ground is hard frozen and we see but few signs of spring. No spring birds as yet, not even a robin, nor blue-bird nor a hawk is seen; not even a blooming willow nor a bursting bud.

I know that these contrasts with your climate are quite familiar to many of your readers, but some of my young friends were *born* in California, and have never known the pleasure of a sleigh-ride nor a skate on ice; have never even seen the beautiful frost pictures on their window-panes. These may be pleased to be reminded of these things, and will love their own balmy climate all the more when I tell them that I have just enjoyed a morning walk in the orchard, where I saw no sign of life, or living thing, except a few hens which were scratching among old leaves for some dead beetle, or a seed or two which may have remained over winter.

It is pleasant to-day in the sunshine, breathing the air as it comes fresh from the snow banks which lie around on every side. Only think of it, boys, here in the middle of March, my little nephew is sliding down hill on his new sled, while with you the almond trees bloomed a month ago, and now you are wondering whether the peach blossoms are quite safe from the frost. I would like just now a saucerful of your strawberries, or even a dish of your green peas, and I suppose you will say that I shall be heartily welcome to them whenever I come to your house.

Ignorance of California.

By the way, I received not long since a letter from Ohio, written by a kind and dear friend, who inquired if "such things were really true, do people in California have pic-nics in January? Of course we don't suppose that they went out to eat their lunch sitting on a snow-bank." I shall try to tell that friend how it is.

Western New York—Apples.

I have spent most of my time in western N. Y., much of it in Niagara, my native county. This county has been quite well known for its excellent apples. This fruit has been shipped hence to the west, the south, the east; to England and to the West Indies. But very little was shipped in any direction this last season. The crop was the smallest known here for many years, and the crop east was in excess of the usual yield. Some farmers have held their apples for a rise, trusting to the known good keeping qualities of fruit grown here; but they are likely to be disappointed, as the fruit grown further east has kept unusually well this winter. Prices at Lockport to-day are $2.00 per barrel.

Wheat.

Western N. Y. is also well known for its excellent wheat. "Genesee Flour" for a long time stood at the top of the market. The farmers in these parts are still largely interested in wheat. They cultivate a variety of other crops for their own use, and live very much off their own produce; but they depend mostly upon wheat and apples for the real money gain. Last fall was very dry about seeding time, and many fields came up poorly, yet there is a fair prospect, provided the frosts do not heave it out badly.

Cutting Away the Forests.

I think that many of the farmers in this county are missing it by cutting away the forests so closely. Extensive clearings have been made within a few years. And the change is easily observed from year to year. They already complain of colder and more sweeping winds, of dryer summers, and of shorter crops. The introduction of cheap coals from Pennsylvania may have hastened this clearing out of forests. The farmer no longer sees a future fortune in cordwood, and he chooses to risk climatic changes while he realizes what he can at present prices, and increases his tillable acres. There is

A Recklessness for the Future

Manifested by our American people. This was seen in California when a miner cut a magnificent sugar pine, and taking out a few shakes to cover his cabin, left the rest of the tree to rot. This is seen in New York, where a millman will saw any tree that will square six inches, twenty-five feet long, or make a few ties for a railroad. Without regard to future good, he finds that he can realize a little now, and he says in so many words, "Let the next generation take care of itself." In the days of my boyhood

Making Maple Sugar

Was quite common at this season of the year, many families making all the sugar they used, and using all the sugar they made. But now many excellent maple groves are left unused. I have seen some new maple sugar in the shop windows, and have tasted its peculiar flavor; but I do not expect an invitation to a single "sugaring-off."

Money Matters, Etc.

Many of the farmers are holding wheat for better prices, and, not having sold many apples, are getting short of cash. Money has not been so close, or so hard to get hold of in this county for fourteen years. Four dollars for the

Pacific Rural Press

Looks big to those who get the *American Agriculturist* for one dollar (club rates) and a "chromo" for 25 cents addition. By the way, do you think of running this "chromo premium" business into the ground in California? Can you defend yourselves and hold your own in any other way? I hope so, for I find very many who do not highly appreciate some of the so-much-praised chromos. The present rage for "illustrations" will serve a useful purpose, perhaps. Thanking you for the RURAL, and hoping to find time to drop you another sheet as spring advances, I remain

Truly yours, J. S.

On Foot Through Lake County

[Written for the PRESS.]

It is a long, up hill road for the pedestrian from Calistoga into Lake county. But one feels that buoyancy, which mountain air produces, and fatigue is not felt, or soon passes away.

The summit reached, Napa county with all its beauty is forgotten; another land lies before us, the Switzerland of California. Descending the other slope a babbling brook of silver waters keeps us company, which gathering volume as it grows in length, fertilizing and beautifying valley after valley, finally hides itself as if from shame in the sloughs of Solano; shame on him who named it Putah.

A few miles further on, through groves which God made beautiful, and which man has not marred, we came to the little town bearing the euphoneous name of Middletown, not remarkable for the beauty or grandeur of its edifices, nor the polish of its people. It is very new and very small. Mayhap it will grow older, and larger. Not far from here we found some agricultural valleys. Coyote, where the hospitable Judge Stark resides, (a pioneer of forty six) with all the comforts of life about him, honored and respected, a reader of the RURAL PRESS, and an enterprising husbandman.

Near him lives A. A. Richie, whose band of fine sheep roam over hills rich with green pasturage. The grain growing here proves the land to be as fertile as that of the lower valleys. Guenoc, soon comes in view, young orchards, new fences and improvements of various kinds show that her soil is appreciated. Over the hills again we went our way past the homes of Mr. Cheeney and Mr. Mc., whose flocks dot the slopes, towards Lower Lake, through valleys green with growing grain, well fenced as from the abundance of timber they of right should be, passing here and there a barn, sufficient for the protection of stock and fodder, and dwellings hardly sufficient for the protection of the people.

Lower Lake is a small town some little distance from the outlet of Clear Lake. It has three stores, a gristmill, hotel, a schoolhouse, its full quota of saloons, and some fine agricultural lands about it—in point of business equal to any town in the county. The valleys and hills here, as in almost every portion of the county, are studded with wide-spreading oaks, whose trunks not unfrequently are several feet in diameter. There is no hurry or bustle here, the people seem to have little to do, and take their time to do it. But men are never satisfied; one remarked to me that he could live easier in Texas. Fifteen miles of travel from here, over hills, good for little save good pastures, brings us into Big valley, and the town of Uncle Sam, or as some call it, Kelsey. The great Mount Uncle Sam overshadows the town, rising some five or six thousand feet above the level of the lake, its base laved by its waters. The inhabitants are desirous of the good opinion of their relations in the outside world, and take some pains to treat a stranger with courtesy. They would be liberal, generous, and will be, after harvest.

Big Valley has, perhaps, the largest body of agricultural land of any in the county, rich alluvial land ten miles by five or six, or more in extent, sloping gently to the shore of the lake, a noble park—every quarter section occupied. Long strings of new board fence, young orchards of fruit trees and trees for ornament, show that homes are being made. Some intend building new houses this summer, while others are anxious to sell out and go to Goose Lake before the old shanty tumbles about their heads. Go to Lake county, you who want a good home, and have two or three thousand dollars wherewith to buy it.

Ten miles from Uncle Sam, on the other side of Big Valley, is Lake Port, the county seat, situate on the shore of the lake—as beautiful a location as could be chosen for a village,—sloping back from the water's edge to some low hills, a few hundred yards off. These hills, adorned with neat cottages, evince the taste of the ladies who occupy them, and when the ornamental trees shall have grown somewhat, will vie as residences with any in the State.

Lakeport has some hundreds of inhabitants. The court house,—its most imposing structure,—is situate in the center of a square, in the center of the town. The square is substantially fenced and planted with young trees. Here are three churches, two saloons and a tensutless jail, a printing office, sundry stores, a rink and mechanics' shops, sufficient for the demands of the county. The Lake View Hotel, the only one in town, presided over by Mr. Green and his better-half, affords tender steaks and fresh eggs to the hungry tourist, and, with a clean bed, what more can he ask?

The town is quiet, the inhabitants as placid as the waters of the lake which reflects them. With scenery from their doors which the Rhine cannot surpass, a valley affording all the necessaries and many of the luxuries of life, with a climate mild in winter, not torrid in summer, the people of Lakeport have only to be virtuous to be happy. More anon. SENEX.

Inquiries and Answers.

EDITORS PRESS:—Will you please tell me through the PRESS, the difference between the Persian lilacs and the common kind; also how many kinds of Rhododendrons there are, how tall they grow, how large the flowers are, and, coming from seed, how old before they bloom?

If it would not be too much trouble tell me the names of some of the best hardy shrubs.

MRS. S. E. G.

We will suppose the common lilac to be well known; the Persian differs from it in having very small delicate leaves. There are two colors also, bright purple, and a delicate white, shaded with crimson. There is also a Chinese variety with large leaves and reddish-purple flowers. Also the Gigantea, with dark-blue flowers, the Saugninea deep red, and the Speciosa with bright red flowers.

There are a hundred or more varieties of Rhododendrons, but of these only 15 or 20 are superior. They grow to the hight of from 6 to 10 feet. The flowers are produced in large close clusters that will measure from 6 to 10 inches in diameter. They will bear in 4 years from the seed. Splendid plants can be procured for $5 each that will bloom this year, and for $4 that will bloom next year. As to names of some of the best hardy shrubs, they are simply legion. If Mrs. S. E. G. will send us her post office address, we will send her one of E. E. Moore's catalogues of choice flower seeds, bulbs and plants.

Fruits—Climatic Adaptation.

EDITORS PRESS:—In your issue of 15th inst. I notice a letter from "H. P." of Kansas, in which he asks the question, "Is there a place in California where all the following fruit and nut trees will thrive and bear well, to-wit: Apple, peach, pear, plum, cherry, quince, almond, English walnut, olive, fig and grape." I can inform him that there is such a place, and many such in this valley. A visit to almost any of our leading orchardists or fruit growers will convince him of this fact; while every one does not attempt to raise all these varieties, yet I can safely say any and all of them thrive and do well, and besides these many other fruits of a tropical clime can be seen growing to perfection in our valley. Some of these may not do so well here as in other portions of the State, yet they all can and are being cultivated within our valley with success. Hoping this may be satisfactory to "H. P." and be the means of causing him to locate in this the justly celebrated garden spot of our State, I am respectfully, H. H. S.

Santa Clara, March 25.

AUSTRALIAN HARVESTER.—EDITORS RURAL: About the close of last harvest I noticed in your paper something about a new harvester, called the Australian harvester; will you please let me know where these machines can be purchased, and also furnish me with the names of parties who used them last season. If you know the manufacturers give them my address and they can send circular.

With the usual spring rains there will be an abundant harvest up in this neck of the woods, though at present the crops begin to need a little moistening. R. S. CAMPBELL.

Visalia, March, 1873.

A number of the harvesters alluded to, are now in store in San Francisco awaiting purchasers. Full information in relation to them can be obtained by addressing Mrs. Wm. Taylor, Alameda, Cal., to whom we have forwarded your address.

Yolkless Eggs.

EDITORS RURAL PRESS:—As every one looks to the RURAL PRESS for information concerning farming, stock and poultry-raising, I take the liberty of asking a question through the columns of your valuable paper. My hens are laying eggs about the size of a pigeons' eggs, perfect in every way, except they do not contain a particle of yolk, as all perfect eggs do. Why is this? If I had only found an occasional small egg, it would not have caused an inquiry, for that often occurs when hens are about through laying; but when the same hen lays a number of such eggs, and none of them contain the yellow part found in all perfect eggs, it is (to me) very strange.

Crops are looking fine, and the farmers' faces are overspread with a smile of satisfaction. There has been a new road surveyed, running from Kelseyville by the way of the Caldwell Springs, to intersect the Cloverdale road at the toll-house. The stage will travel this road, in order that passengers may be landed at the door of the Springs Hotel, and save extra travel and expense. That the PRESS may prosper and bring wealth to its owners, not a slow, sluggish stream, but as a mountain torrent, is the wish of

MANZANITA.

Lakeport, March 19th.

Here we have a practical poultry-grower in a quandary. Can any of our readers propose anything better than feeding the hens with pounded bones and a little fat, fresh meats The yolk of eggs is almost entirely carbonate of lime, albumen and fat. Powdered bones are better than shells or lime in any other form.

San Diego.

EDITORS RURAL:—In looking over the RURAL I notice several counties mentioned as agricultural, but never see the famous San Diego county spoken of as anything. I think it is worthy of mention. We are having fine weather here, which we are blessed with 365 days in the year, with occasionally a shower. Grain looks well and promises a good crop. There is some fruit raised in the county, principally grapes. Fruit raising is in its infancy yet, from the fact that almost all are speculating in real estate and waiting for a railroad.

Some have concluded to try agriculture and not wait for the railroad to enrich them, having come to the conclusion that Tom Scott will build the road when he is ready, not as they first thought when they were ready. Vegetation is well under way and fruit trees are in full bloom. L. L. B.

San Diego, March 17th.

The "Creeping" of Rails.

A correspondent of the *Railroad Gazette* notes the following curious facts, for which he asks an explanation: Four hundred and fifteen miles of track, on a road running north and south, were laid, between 1850 and 1861, with the fish-bar joint fastening, similar to that now in general use. The difference in the elevations of the north and south ends of the track does not exceed 150 feet—the southern end being the lowest—and the grades undulate; but at no point is a greater elevation attained than 200 feet above or 125 below the southern end. On about one-half of the distance the track was laid with both rail joints on the same cross tie, and the balance with "broken joints." The rails were not "slotted," neither were any "stop chairs" used to prevent the track from "creeping." The track has been in use from 11 to 20 years, and the creeping of both rails has been southward, and the western has *crept* much faster than the eastern. In places where the grade does not exceed 5 to 8 feet per mile, for 20 to 30 miles, the joints of the western are now opposite to the center of the eastern rails, while the latter have also moved southward. On the heaviest grades descending northward, there is little or no tendency to move down hill or northward. Perhaps some of your readers can explain why the western rails creep faster than the eastern.

Having seen the above paragraph copied into several of our technical journals without any answer to the query propounded, we will venture the application to the "creeping" of rails on roads running north and south, the same theory that is given as a cause for the more rapid wearing away of the western banks of rivers, which run south or north, viz:—*the rotation of the earth on its axis.* This movement, being from west to east, has a tendency to throw the waters of rivers running parallel with the earth's axis against their western banks; and hence the more rapid wearing away on that side.

So of a railroad train, the eastward motion of the earth, in its daily revolution, presses the flanges of the wheel against the west rail, and causes it to move either north or south, according as the excess of transportation is in the one direction or the other, or as the north or south end of the road is more or less elevated than the opposite extreme. In the case cited, the southern end of the road being some 150 ft. lower than the northern the rails very naturally move *down hill.* The fact that this motion in railroads, can be accurately determined, may be considered not only as positive proof of the supposed action of the water upon river banks; but also of the truth of the theory generally accepted as its cause.

The Horse.

On Breeding Up.

In a previous article which appeared in the RURAL of June 8, 1872, are presented some opinions on qualitiea desirable for breoding, and which relate in part to the subjeot of "breeding up" from the *Blooded* horse, and which I take the liberty to again introduce for the purpose of carrying out, so far as may be in so brief a space, this important branch in the *science* of breeding.

There are certain preparatory steps necessary to the accomplishment of any important object. It must be admitted that, whiie the immediate incentive to racing is *pleasure and finance*, (the two most potent powers in the plan of creation) the ultimate object is the perfection of the horse.

No matter how much the fanatic, moral or religious bigot may deprecate the English and American habit of racing, it is the only means through which the horse has thus far, or will he in the future brought to the higheat degree of usefuiness.

The galloping race tests the horse'a fitneas for the equestrian, hunter, or cavalier. The trotting race hia worthiness for the responsible duties of the road, and his value is commensurate in the coin of *any* land, in proportion as he ia fit for either purpose, and when the horse proves the master on Turf or Road, he commanda a modest fortune as his price, and in the hands of an independent gentleman the ships of a Vanderbiit conld not buy a Dexter so long as he was the best, as Bonner says, "my pleasures are not for saie," a sentiment worthy the gentieman and artist, that he is.

There is a growing tendency among buainesa men, profesaional men, and men of leisure, to patronize the aports of the Turf, aud to resort to recreation upon the road as among the most useful and pleasureable means of relaxation from the necessary toils and cares of life, and the time has passed when sensibie men look upon snch paatimes as immoral or vuigar, as I heard Henry Waid Beecher remark, in an address at the inauguration of the Hamden Park Race Course, at Springfield, Mass., "That it was no mean enjoyment to witnesa the skiii and power of horse and man upon the Turf, and he did not believe in yieiding up aii such aports, or the ownership of aii the beat horses to gamblera, nor aii the best music to the Devil."

The disposition in California has been, and atiii is, to encourage the breeding of sizabie horses, that can pull and balance with ease a wagon, with driver and friend, at a three-minute gait, and thia brings me to conaider some of the means for improving our stock of roadsters, and also for making them most successfui npon the Turf and road. It must be admitted, that while the majority of thorough-bred mares are capable of carrying the weight required by the rules of racing, they lack the size and proportions that enabie them to carry with ease a wagon, with passengers varying in weight from three to six hundred pounda. Those quaiities in the blood mare of extreme sensitiveness, excitability and impuise, which render her successfui in the race under saddle, detract, through her very purity, from her usefuiness in harness.

If the desired object is to "square up" and enlarge her proportions, and modify her spirited temperament, the meana are at our command hy joining her issue with the large, well formed inbred trotting atailion, and in their progeny a doubie resuit will have beeu secured, namely, enlargemeut and dociiity on the part of the dam, and most likely coupied with the trotting instinct and action, while on the part of the horse he wiii have been reduced in aize, but enriched through her warm, atrong quality of blood, and gained greater activity and freedom of motion, and thoae mentai and physicai quaiities that atamp the roadster horse with staying powera.

Here I will venture to suggest to parties that have mares with Beimont, Riffleman, Jack Hawkins, Cheatham, Lodi or Woodburn biood in their veins, couid hardiy be chargeable with indiscretion were they to breed to either of the following named families of horses, or horses singly named:

Hambletonians, Patchens, David Hills, Rattlers aud Hambieton Chiefs, John Nelson, Blackbird, Chieftain, Ben. Frankiin, and St. Clair, as these are aii of the larger type of horses and have clever antecedenta. It would not be expected that many of the Morgans, or even Biack Hawks, would breed up in aize by being crossed with the thorough-bred mare, but the cross has usually proved a favorahie one, for the reasons that they are both clever in trottiug action, intelligent and controiiable, and domestic in diapoaition, and usually have well-formed, hardy feet which favors their progeny greatly for road work and the Turf, and through such croasing, more of the "Gold Dust Stock" might be generated.

Greatly varied opinions have in the past been entertained hy most breeders in regard to the advantages of breeding up in size from *Sire or Dam*, but when the facts that actual results have demonstrated, and the known lawa of Mechaniam, Anatomy and Physioiogy, that are already nnderstood, are brought to bear, a failnre to produce desired and given reaults shouid be from want of material or opportunity, rather than want of knowiedge.

In breeding up for *Quality* I lay claim to a *Law*, or *Rule*, as unvarying as any known to the science of breeding, and one that I have never seen fuliy presented, which is this, that to produce the best horse for any given purpose, he or she muat be bred by a horse larger than the dam, and in hight may vary from one to four inches, and in weight from one to four hundred pounds.

For facts in support of this, the theory to which I lay claim in breeding for quality and corresponding success on track and road, I invite attention to the foilowing named horaes, something in the order in which they have appeared upon the Turf in the laat twenty years, that have heen bred from the larger horse and smaiier dam.

Lady Suffolk, the best of her day; Fiora Temple, the "Queen of the Turf" for many a year; Ethan Allen, the fleetest that ever set sail; Geo. M. Patchen, the "Jersey Steamboat," and his junior son, George M. Patchen; Lady Thorn' a "thorn" by the side of any horae down the home stretch; George Wilkes; then come the peerless flyers, Dexter, Goldamith Maid and Lucy; Thomaa Jefferson, who haa aeen hia like from end to end, not aired by a big horae and iittle dam; and last comes Huntress, with her terrible three-mile record, to support this rule of breeding. [See *Spirit of the Times* of Feb. 22d. In an articie headed, "Trottera in Orange County," "Felix" says, the first he saw was that littie world beater, Huntress." and of her dam: "There ahe stands, fourteen hands two inches, a littie mare, fuil of big biood."]

Then as we come to results in California: The littie grey jewel, Captain Hanford, Conness, Harvest Queen, Ajax, Saily Shaw, Anrora, The wonder Occident, May Fly, George Treat, Breeze, Alameda Maid, Oakiand Maid, Algerine, Whipple, The Tobin Filly, St. Claire, Venture, Lady Dooley—these three last uamed are more than the others nearly equal in breeding between sire and dam, but with alight advantage on the part of the sire. For two-year-old roadstera last fall, "James Monroe," the biggest and the faatest in the State; Sire, 15: 3; Dam, 15 hands, (anti-humhug notwithstanding.)

Is this showing not enough upon which to predicate a general law of breeding? I am not claiming that clever horses do not resnit from the contrary rule of breeding. My ciaim is that they never come the best that way, and where it can be shown, in a single instance, that the best twenty miler, or single miler, was bred from smaiier horse and larger dam, I will acknowledge the *exception*, at *least*.

Two notable instances of comparative exceptions to this rule appear in Bonner'a Pocahontaa, by Ethan Allen, and in May Howard, by Captain Hanford, but even they do not suffice to make an exception.

I now present to thinking horsemen, the theory, Phyaiological and Anatomical iawa, through which we might reasonably expect the above results. First: It is weii known that the maie of tho entire animal creation is the largest, and through each specie obtains precedent in Anatomicai formation and mere physical power over the female. It ia a commonly recognized fact among acientists, that the maie imparts to the offspring by far the moat prominent muscuiar, bony, or osseous outiine structure, and mechanical action muat follow the leverage of muscular and bony conformation, and hence it follows, as a matter of necessity, that the horse must control most positively the gait of which he is possessed. By relating thia to my former article on "breeding up," it wiii be seen upon what ground I predicate the opinion that the first or direct cross from the trotting horse ia more likeiy to produce a succesaful trotting colt than a like cross from the running horse to a trotting mare, a fact which has been very thoroughly teated in the breeding studs of Kentucky.

That the dam performs an equally important office in imparting to the offspring qualities indispensabie to the perfect horse. there can be no doubt. These are Instinctive, Vitai, Temperamental, those mental quaiities so susceptibie to training and education, that spirit "to do or die," yet subject to the master's will. She imparts that moldable rotund, eiastic, enduring quality of organism so easentiai to the campaign racer, and no horse or man can be trusted in a desperate encounter for supremacy that had not a good mother.

I come now to speak of the essential law upon which the advantage resta of breeding for quality, a law which applies equally to the human or brute creation, which is this: That tho female furnishes the receptive ovum, sack or mould, as it were, and that the male imparts the fecundating sperm celi, that represents every atom of his organism and every function of hia mental nature. Ii these atoma are many and voiuminous, and the vitai spirit impulsive, expansion and corresponding tensiou on the part of the female organiam is unavoidabie, aud by the same law the maie's imparting is compressed into a lesaer compass than its original inherent outiine. The result is a concentration of the male organism, an expansion and greater tension of the fibrous and nervous filaments of the femaie, a "large horse in a smaii skin," more atrength for the given weight, iess quantity, more quality, less voiume, more vivacity and eiectric action.

I come now to apeak of the advantages that my staiion, Naubuc,—advertiaed in this week's RURAL— possesses in carrying out the principies of breeding up in size and quaiity, in the present and former articie. Aa a staiiion, he is medium size, in hight, fifteen hands three inches, and weighs 1,060 pounds, which would give to him the advantage in size over most trotting mares, and by referring to my former articie, it wiii be seen on what ground I deem it admisaibie to breed from the smaiier sire to tho iarger dam.

I ciaim that no horse in America haa been bred, whose sire and dam possessed more strength of blood, and were both such superior trottera, the aire for speed, the dam for staying quaiities; one the purest of the Northern bred trotting horses, the other the strongest of Southern breeding, combining the blood of Wagner and Glencoe.

I do not ciaim Naubuc so atrongly inbred to trotting familiies as Hambletonian, hut I do ciaim stronger hiood than any other horso that is breeding, that inherits the trotting quality from aire and dam, for what horse can be named, except hia full brother, Thomas Jefferson, that had a dam the equal of Gypsy Queen for biood, foot and bottom combined, the advantages of which I expect to show in his produce from common mares. Jamea Monroe, his first get, out of a common mare, had no competitor at the Bay District Fair last Fall, as a roadster, but at the State Fair, in Sacramento, was allowed to compete in speed for a special premium, against three other two-year-old colts, but only one appeared to trot againat him; the owners of the other two said, in substance, that they had secu my colt trot, and that it was foiiy for them to compete with him, but Mr. Flint, the owuer of the Primas colt, that took first premium, consented to trot his colt with mine for a special premium, and Dan. Denniaon drove him to harness, remarking, as he started np the stretch to get the word, that he would show them how to beat that biack colt, which he did on the first haif mile nearly a distance, but I overtook and passed him on the turn, weii to the outside, and beat him in nearly a distance, and this to a hundred pound wagon and for which the Committee, Mr. Combs, Mr. Britton and Mr. Sessions, recommended a speciai premium and the President, Chas. Reed, Esq., announced from the stand a Diploma to Jamea Monroe, and the Marshai tied the biue ribbon to the colt. Thus, it wiii be seen, the prediction I made in reference to thia colt in my circular of '72 was verified, and I think I can aafely promise to show any geutiemen that will take the trouble to visit the Naubuc Farm, at San Lorenzo, two other colts, one a three-year-old, the other a two-year oid, out of common mares, that are beauties in form, and show great promise of speed.

B. J. SMITH.

Kind Treatment to Horses.

Mr. N. J. Coleman, in a lecture before the Illinois Industrial University, on breeding horses, pleads for kinder and more judicious treatment of those noble animals. Their stables are frequently too close, with too little light and air; the horse has lungs, and consumes a great deal of oxygen; he is often confined in a close stall, which hardly permits him to lie down; he requires abundance of air and light, dark stables being the cause of diseased eyes in many horses. Stables require windows as well as houses. Brood mares (of which the lecturer keeps forty) should be worked or exercised a little every day; after foaling the work should be very moderate. They require comfortable stables, and they and their colts should be frequently handled; otherwise the colt may be as wild as a deer and not easily controlled at breaking time; colts thus handled from the first are very easily broken. The horse has more intelligence than he is credited for; he can see and hear better than a man, and smell and feel just as well. These facts should be borne in mind in taming him; convince him that you are his friend, and will not hurt him; approach him by degrees; let him smell of your whip and bridle; put on his bridle, and when that is in your hand you are his master, and in ten minutes he will lie down completely your slave. With a few lessons of this kind he will know his place, and obey your voice.

In training colts, *tact* is as necessary as in rearing children. A yearling colt may become accustomed to the locomotive, umbrella, wheelbarrow and other objects, and after being once convinced by touch or smell that no harm comes from them, he remembers; and all such matters of education tend to make him a safe horse ever after

Miscellaneous.

Discovery of Relics of an Ancient Civilization.

Our sister Territories of Arizona and New Mexico will not in the future, as they have in the past, divide between themselves all the interest and glory of having been the theaters of a long-past civilization. Lincoln county, Nevada, steps to the front in claiming an equal share of such notoriety, bringing, in suhstantiation of her claims, hieroglyphic stones, figured pottery, stone implements of husbandry, etc. Day before yesterday, on the liue of the Pioche and Bullionville Railroad, on the foothills about half way between the two places, relics of a by-gone civilization of these kinds were uearthed. Before us are fragments of the pottery, which can be inspected by those feeling a curiosity in the matter. They are composed of a gray substance, and figured with indelihle coal-black colors. The figuring is regular, and as plain as the figures on porcelain just taken down from a merchant's shelf. We have not seen any of the stone implements. The curiosities were found on a level formation, about three feet beueath the surface, which undoubtedly had been constructed for a floor. The discoverers were excavating gravel to level up the railroad track when they struck upon the interesting depository. The spot is just beneath an overhanging point of rock, on which have heen carved hieroglyphical characters in profusion, the majority having been obliterated by the erasions of time.

Further developments may disclose relics still more interesting.

It would seem that the ingenious race who manufactured these specimens of art should have known something of the immense silver deposits in the hills, at the base of which they had their habitations; but if they were workers in the precious metals the evidences have yet to be discovered.—*Pioche Record.*

A Lesson in Friction.

The following facts teach a lessou which shows how important it is that the utmost care and caution should be observed in relation to everything where human life and safety is involved:—The steamship *Saragossa* was lately put upon the ways at Baltimore, supposed to need only new caulking and copper. The caulkers got to work, and the seams between the planks were dressed out with the irons preparatory to driving in the new oakum. Imagine the astouishment of the caulkers when one day the iron, subjected only to a feeble blow, went clear into the vessel. A closer inspection resulted, and it was discovered that for a distance of eighty feet on each side of the keel, and beneath that portion of the ship where the boilers rest, planks which eight years ago were three and one-half inches thick were now mere boards and one-half iuch in thickness. They were not worm-eaten, and to all appearances were as sound as when first spiked and bolted to the huge skeleton of the ship. And here is a lesson in the power of friction which is aptly illustrated. Beneath the boilers of the *Saragossa* it was discovered that particles of coal had dropped from time to time, and the mere motion of the vessel as she rocked at sea had shaken the loose pieces of mineral from side to side on the planks, and worn them to the thickness of boards used in the ordinary skiff, such as are used in our creeks.

REMARKABLE TELEGRAPHIC FEAT.—Capt. J. H. Hills, a Vermont telegraphic operator, being recently on a snow bound train where severe suffering was anticipated, without speedy relief, cut the telegraphic wires, took their ends into a car where they would be sufficiently warmed to admit of being readily haudled, and hy sticking the ends together was able to "call" the operator at one of the principal stations on the road. He then sent the following message: — "Trouble. Answer slowly. I am working without an instrument; I will receive your answer through my tongue."

Captain H. received the answer by putting one end of the wire above and the other uuder his tongue, and letting the electric current pass through it, wheu he was able to read by the succession of sharp and somewhat painful electrical shocks. His success was perfect, and he not only sent and received messages for the conductor, but for several of the passengers. The only ill eousequeuces of the exploit was the total loss of taste which Captain H. suffered for several days afterwards.

NECESSITY OF REST FOR PLANTS.—Those who carefully watch the iufluence of spriug upon vegetation, will find that it means something more than the mere action of light and heat upon certain chemicals. Thus, a glass jar, placed in the window of a room that has been kept constautly warm, contained several small water plants which have lain dormant all winter, although the heat and light seemed to be abundant. Now, however, that spring has come, they are all starting up vigorously. We know that even in the depth of winter, flowers and fruit may be grown, if freely supplied with light and heat; but it would seem that iu spring these ageuts, even though apparently not more iutense, are much more efficient than in winter, and it is probable that much of this increased efficiency is due to powers inherent in the plants themselves; but which require periodical seasons of dict in order to develop their full influence upon the organism of the plant.

Tempering Steel.

One of the most promising, profitable, and apparently excellent of these patented processes is that of Garman & Siegfried, owned by the Steel Refining and Tempering Company, Boston, Mass. Congress has appropriated ten thousaud dollars to pay for the right of use in the government shops. It is said to impart an extraordinary hardness and durahility to the poorest qualities of steel. The followiug description of the process is from Siegfried's specification, patent of July 16, 1871:

"I first heat the steel to a cherry red in a clean smith's fire, and then cover the steel with chloride of sodium (commou salt), purifying the fire also by throwing in salt. I work the steel in this condition and while subjected to this treatment, until it is brought into nearly its finished form. I then substitute for the salt a compound composed of the following ingredients and in about the following proportions: One part, by weight, of each of the following substances: chloride of sodium, sulphate of copper, sal ammoniac, and sal soda, together with one-half part by weight of pure nitrate of potassa, said ingredients being pulverized and mixed. I alternately heat the steel and treat it by covering with this mixture and hammering until it is thoroughly refined and brought into its finished form. I then return it to the fire and heat it slowly to a cherry red, and then plunge it into a bath composed of the following ingredients in substantially the following proportious for the required quantity: of rain water, one gallon of alum, one ounce and a half; of sal soda, one ounce and a half; of sulphate of copper, one ounce and a half; of nitrate of potassa, one ounce; and of chloride of sodium, six ounces. These quantities and proportions are stated as being what I regard as practically the best, hut it is manifest that they may be slightly changed without departing from the principle of my invention."

UNCONTROLLABLE FIRES.—Much has been said since the great fires in Chicago and Boston, about the uncontrollable nature of great fires. A correspondent of the *Scientific American* suggests the following as, at best in part, accounting for the special phenomena attending such great conflagrations:—

"When steam is heated to 5072° Fah., it is decomposed into a mixture of oxygen and hydrogen gases, and about 8,000 uuits of heat are made latent; and when the gases again unite, which they will do when cooled by contact with colder substances down to a point below 5072°, the 8,000 units of heat will again become sensible, the process beiug analogous to that by which 962 units of heat are made latent when water is evaporated, the same amount of heat being again made sensible when the steam is condensed.

In great fires there is always a great quantity of water in the burning materials, and the heat is doubtless above 5072°. The result would be that the mixed gases would be driven out of the fire and would recombine as soon as sufficiently cooled, exposing any building or other object upon which they might stike to the heat of an oxyhydrogen flame."

MINUTENESS OF SPECTROSCOPIC RESEARCH.—Our readers have already been made acquainted with the fact that the spectrum is capable of discovering the presence of the most minute quantities of any mineral or gas, the light of which may be submitted to its analysis by means of vaporization; but we presume they are hardly prepared for the announcement that it is also almost or quite as effective in detecting the presence of infuitessimal quantities of dark substances, by the absorption, rather than the inversion of their light. It is thus that forcign substances, such as deleterious gases, etc., are detected in blood. Dr. Herapath says that it is thus perfectly easy to detect aud occularly examine the human blood in the stomach of a flea. The same may even be diluted with a teaspoonful of water without losing its property as human blood, if the insect has recently been dining from the person of a human.

HARDENING BURNED STEEL.—For hardening the steel points of tools of boring machines, ect., when burnt, J. Jossi proposes the following method: 10 parts of tallow, 2 parts horn filings, 1 part sal ammoniac, 1 part pulverized charcoal, and 1 part soda are mixed together aud placed with a piece of wood on the parts to be hardened, after they have been exposed to a cherry-red heat. The mixture dries under the influence of the heat, and the steel parts may he hardened again in the usual manner.

THE MILLION DOLLAR TELESCOPE.—The project of getting up a great million dollar telescope, by private subscription, bids fair to be realized. We presume that Government will come to the aid, if necessary, in furnishing the last stipend that may he necessary to secure the construction of such an instrument. If possible, it should be completed and mounted at Philadelphia, ready for use at the coming Centenuial Celebration.

COMPLIMENT TO AMERICAN MECHANICS.—A recent English work on the strength of materials aud structures contains a valuable series of tables, derived chiefly from experiments made at the British national engineering establishments at Chatham and Woolwich, by means of a simple and effieient machine for testing strength and elasticity, of American origin. This is a high compliment to the ingenuity of American mechanics.

Farmers in Council.

Farmers' Clubs and Granges.

There is an illustrated newspaper published in Chicago, known as the *Land Owner*, the editor of which has such a plain way of talking that anybody can understand him without further explanation; here is a specimen of it.

A Revolutionary Work.

What mean these enormous gatherings of farmers and tillers of the soil, the news of which reach us every day? What are these deep, sonorous mutterings of discontent that are borne to our ears on every breeze from the prairies of the great West? What clouds are these so plainly discernable in the political horizon?

The student of history may indeed regard them as pregnant of coming events, for thus began the terrible revolutions of the world. Louis of France heard them in his workshop at Versailles, and Maria Antoinnette heeded them not in her retreat at Grand Trianon. But the French Revolution broke like an avalanche, when the wrath of the people had culminated to ripeness.

Throughout the boundless West the farmers are organizing. We do not see much of it here in Chicago, for the lords of the soil gather in their villages and on their own farms. Their meetings are immense. At a recent conclave held at Bloomington there were upwards of 400 delegates, *representing fully* 50,000 *farmers*. Their deliberations were calm, and marked with terrible determination. They went about their business like wise men who intend to assert their rights. There were no bummer politicians, and hence no offers of bribes. There were no dissentions, and hence nothing but business.

In Iowa, these "Granges," as their societies are called, are forming in every part of the State. Kansas, Minnesota, the Territories, all have caught the fever. Men are traveling about among the farmers and exorting them to action, on the threshing floor and in the schoolhouse. The women are up in arms as well. These men have a terrible eloquence, and converts are made by thousands. The old monks who went up and down the Rhine in the days of the Crusaders did their work with no greater effect. War is to be waged by the husbandmen; War against monopoly, and against official thieving and corruption, and it will be war to the knife.

These men, who constitute the very vitals of the State, are in earnest. All winter they have burnt their corn for fuel, and have seen their produce decay and return again to the rich soil from which their labor brought it. The railroads have eaten out their vitals, which, unlike those of Prometheus, do not grow again when the vulture retires, for the railroad vulture never leaves his victim. On every hand these iron bonds are being drawn tighter and tighter around the people. Congress, through its enormous corruption, has given railroads a mighty and consuming power, which they wield with the most tyrannical hand. The farmer's corn cannot go to market, for the railroads extort more than it is worth to carry it to the seaboard. And in the rich flame this burning corn emits, the railroad kings if they were wise, would see their doom. It takes no alchemist to read the tale.

At the present rate of organization there will soon be a million farmers organized in these Granges. They will be supreme masters of the situation, for they make the laws and are capable of administering them. They are desperate men, when aroused, and do not easily change their opinions. They have the power to compel the combination of railroad monopolists to do their bidding. Let railroad manipulators take timely warning. If this embargo upon the rights of the farmers is not removed, the farmers will take the administration of law into their own hands. They will tear up the tracks and plant corn on the lands these roads hold title to only by their sufferance. The farmers once united, and no railroad could run a train across Iowa or Illinois. The Governor, with his feeble militia, would be a farce. Faster than ties can be laid they will be torn up. The wives and daughters of the farmers are also in this struggle. When women join hand and raise the red flag, the Bastile falls. Beware, then, you men who handle monopolies that are crushing out the honest industry of the great West, how you longer oppress. These people will be Lycurgus when aroused. They will chain you with a thousand chains, and their wrath will not be easily appeased, for it is a fire you have lit and fanned yourselves for twenty years.

We make no doubt that this language will be laughed at by the railroad sharks, comfortably ensconced in velvet arm chairs, with money to bribe and money to fight. Fools can never hear their own death knell. It is an attribute God has not given them.

The Land Owner desires to put this prophecy on record. Unless there is a compromise between the farmers and the railroads before another season brings forth its plenteous crops, there will be a terrible revolution. They will not let you run your trains through their counties. They will tear up your tracks, and will not hesitate to kill, if they are driven to it. If ever men were aroused, the farmers of the West are. Their thousand meetings are fanning into life a determination to resist, at any hazard, the further usurpation of their rights. They intend to live in the future as well as the railroad men. They will win.

So utterly corrupt has our government become, so thoroughly are the rights of the masses usurped by corporations and combinations of capital, that we regard this spontaneous uprising of the farmers as the most hopeful sign of the times. When these men, unused to petty meanness, unacquainted with any other way of getting a living than at the handles of the plow, take up the gauntlet, there will be a wonderful shaking among the dishonest bones of the corrupt rings and the lying politicians.

God grant that the day may soon dawn when the very bone and sinew of this land will arise in their might, and, conscious of the sovereignty, assert their rights. We believe that the pothouse and bummer politicians have had their day, that the railroad kings are coming to the full end of their ropes, and that the farmers are to be the executioners. There is not an honest man in the land who would not like to see an old French guillotine set up on the prairies of Illinois, and witness the heads of the monopolists and the political thieves who back them, roll into the basket.

This is the language of Revolution. In France it would send us to jail, but our reward would be a stupendous awakening of the people. In this boasted free country it will probably be laughed at as puerile by the monopolists, but if it spurs on the farmers in their revolution, we will be repaid.

Let the Granges organize!!!

Oakland Farming, Horticultural and Industrial Club.

Club met Friday, March 28, in the Chemical Chamber of the University.

President Ezra S. Carr, in the Chair.

The Lecture.

In accordance with public announcement, Professor August F. W. Pariz, proceeded to deliver a lecture on the manufacture of beet sugar. It was an exceedingly able and instructive "paper" and it was a matter of sincere regret that the Hall was not crowded. But what the audience lacked in numbers they made up in appreciation, for all noted every word and sentence *attentis auribus*.

The lecture which is too lengthy to come in under our notices of Clubs, will be found in another column.

The President remarked that delegates from the various farmers' clubs of the State would meet in San Francisco on the 9th of April as a Union. Alameda was entitled to five delegates and on motion the President was instructed to appoint the same. He said that the noble woman element ought to be represented, and he would accordingly select Mrs. J. P. Moore as a delegate. The others named were Messrs. C. Bagge, C. H. Dwinelle and J. V. Webster. On motion, Dr. Carr was also elected a delegate. The delegation have power to appoint substitutes or confer their proxies; the Secretary to furnish credentials to delegates. The Treasurer was empowered to pay over dues of twenty-five cents *per caput* to defray expenses.

Choice Plants and Seeds.

The President had on exhibition some choice tropical shrubs recently sent out from the Agricultural Bureau in Washington. Among them is the *cinchona*, indigenous to Peru. From the bark of this tree quinine is extracted. Tea plants and the *guava*, from the fruit of which the delicious jelly is made, are also to be seen at the laboratory, besides some choice seeds from Washington.

Mildew on Roses.

The President asked for information, if any member of the club knew of any remedy for mildew upon roses. Mrs. Moore remarked that she had used whale oil soap with such beneficial effect that her roses last season were healthy and blooming, while those of her neighbors were blighted. It was a very effective cure for mildew on roses. A pint of the oil poured into a bucket of hot water and the fluid injected on the plant or shrub through a syringe.

The meeting then adjourned.

Dixon Farmers' Club.

This Club met March 22d, President J. C. Merryfield presiding.

Fourteen new members were admitted; making an aggregate membership of fifty-two. The Club then proceeded to elect five delegates as Representatives to the California Farmers' Union, viz: J. C. Merryfield, H. Rohwer, J. S. Garnett, S. G. McMahan, J. M. Dudley.

The sack question was discussed at considerable length, when H. C. McCane moved that the delegates to the Farmers Union be authorized to buy sacks; the motion was carried. Eighty thousand sacks were ordered by those present, (it will require one hundred and fifty thousand to hold the grain raised by members of the club this year). There is a quiet determination on the part of the members of this Club to do what can be done to make the organization a success, not only here but all over the State. Realizing that we have been too slow in organizing to reap the full benefits this year, we are determined to be on hand in the future.

J. M. D., Secretary.

San Jose Farmers' Club.

Club met Saturday the 22d, President Casey presiding.

Mr. Woodham wanted to know if the Club could not establish a labor exchange. The harvest is close upon us and farmers getting somewhat exercised in regard to help.

It was suggested that a large bulletin board be procured for the farmers stalls, on which should be posted, among other things, names and particulars of applicants, both for labor and laborers.

The Committee on markets was directed to investigate the matter and report at next meeting.

Mr. Cadwell spoke in reference to uniting with some national organization. He looked upon this matter as a thing inevitable in order to protect the farming interest. We are driven to it. Agriculture is beginning to be looked upon as a goose to be plucked, and unless we wish to be fleeced continually and forever, we must organize for protection.

He suggested the Patrons of Husbandry as the proper society with which to co-operate. The only objection to this mode of procedure was, that if carried out successfully, it would become of itself the most gigantic monopoly of the world. But we are forced to it of necessity; we cannot help ourselves.

Besides this monopoly, if it comes to that, will be used to the benefit of agriculture, an interest on which the welfare of our country depends. One of the greatest anomolies of the age is, that the strongest and most powerful element of the land has so long consented to be ground under the feet of the weaker elements. We have the power and oppression has forced us to exert it.—*Mercury*.

The regular debate was on the petition to Congress for the removal of duty on sacks and sack material. A lengthy debate ensued, which was participated in by Messrs. Holloway, Cottle, Hobson, Ware, Cadwell, Moore, Casey, Bergland and Chipman, for which we have not room in our columns, without excluding notices of other clubs.

San Joaquin Farmers' Club.

The Club met in regular weekly session Saturday the 29th ult. The Chairman announced that the first business in order would be the election of officers to serve during the ensuing year. The number of officers required would be a President, five Vice Presidents, a Secretary and a Treasurer.

Mr. Phelps nominated A. C. Paulsell for permanent President, but that gentleman positively declined. Captain Ketchum was nominated by Mr. Paulsell and unanimously elected. Messrs. Phelps, Garwood, and Woodward were nominated for Secretary, and each declined to serve, but at length Mr. Phelps was elected by an unanimous vote and induced to accept the position.

The following named gentlemen were elected Vice Presidents: W. D. Ashley, J. W. Stetson, A. C. Paulsell, John Wilson, F. J. Woodward. Mr. J. M. Barber was unanimously elected Treasurer.

The Sack Question.

The Secretary read the following communication, which was, on motion, received and placed on file: San Francisco, March 23, 1873. San Joaquin Farmers' Club—Gentlemen: As the question is now agitating your farmers regarding the best way to obtain cheap and good sacks for the coming season, we take this opportunity of placing before your club a proposition which will enable you to obtain your sacks from three to five cents apiece cheaper than you otherwise could get them.

The way we propose is this: Let each farmer give in an estimate of as many sacks as he will require, appoint a committee to purchase the burlap, which they can do so as cheaply as the bag-dealers, and he will make all the bags you require at one cent apiece, we furnishing everything but the burlap.

We have submitted this to Mr. A. T. Dewey, and he says it is the best opportunity the farmers of this State have ever had. Should you think this a good way to have your bags made, by calling upon us we will give you any information required. Yours respectfully, (Signed) Kohler & McDougald.

State Farmers' Union.

Mr. Phelps called attention to the fact that the State Farmers' Union would convene at San Francisco on the 9th of April and read an extract from the by-laws of said Union setting forth that twenty-five cents per capita of the members of the local clubs would have to be paid in order to secure representation at said meeting on the 9th of April. Considerable discussion arose on this point, and finally the matter was laid over until next Saturday for further consideration. The sack question was discussed quite at length by Messrs. Paulsell, Phelps, Meyers, Woodward, Stetson and the presiding officer. While the latter addressed the Club, Mr. John Nelson occupied the chair.

Mr. Phelps addressed the club briefly upon the advantages of the State organization; and Mr. Stetson likewise spoke briefly upon the same point, approving the movement. Mr. Paulsell stated that the San Joaquin Farmers' Cooperative Union would be represented at the meeting of the State Union on the 9th proximo. Mr. Phelps exhibited to the Club the new contrivance for grinding sickel knives, heretofore noticed in the *Independent*. The grinder is for sale by H. C. Shaw. The Club examined the model of a new harvester and then adjourned.—*Independent*.

Sonoma Vinicultural Club.

On last Saturday afternoon, we had the pleasure of attending on invitation a meeting in the Old Fitch House, Sonoma City, of the above Club. The gentlemen present were nearly all veterans in the wine business, and their genial demeanor, and the affable courtesy which predominated throughout the session favorably impressed us toward them. No one we are certain, could pass an hour in their company, and leave them with any vestige remaining in his breast of the doctrine of total abstinence, or the remnant of an idea that the growing of vines and making of wine could be in any way conducive to the destruction of our beloved country. The Club met for the purpose of discussing the best means of putting on a steamer for freight and passengers to ply between San Francisco and the Sonoma Embarcadero. Letters had been sent to the Club with a view of opening up a way for them to get their freight shipped to San Francisco. The freight shipments from this port has increased largely since a steamer ran in there regularly, and is still augmenting, and including passenger fare is estimated to pay $30,000 for its transportation. In fact, three schooners and two plungers, the latter of twenty tons burden, are not sufficient to do the Sonoma carrying trade, which is proved from the fact that very often freight is delayed for over a week both at the Embarcadero and at San Francisco. We feel assured from the manner in which the question was discussed that a steamer will be put on, but from the calibre of those present are equally certain that they will not stand any nonsense, nor enter into the affair until assured that a good, substantial and speedy boat will be put on, and the rates charged in proportion to the service rendered. They evidently mean business, and our best wishes for the accomplishment of a measure that will conduce greatly to the prosperity of Sonoma are with them. To-day they will hold another meeting when foreign wines will be brought before them, as well as native, for the purpose of determining their special merits, or the superiority that the one may possess over the other.—*Napa Reporter*.

Branch Township Farmers' Club.

Club in session March 22. The President and both Vice-Presidents being absent, Mr. R. H. Bentley was called to the chair.

By courtesy of the Chair a free and easy was extended to the Club on Presidential topics. The subject was finally closed in committee of the whole, by a rising report.

Resolved, That although this Club—true by name only a Branch Club—is nevertheless the source of the *Parent Club*—the Central Club of Stanislaus County. Our President is chosen to preside over that body. Therefore, in as much as we have this day found ourselves clubbed together without any head or any fronts to our clubbing. Be it hereinafter Resolved, that whenever the Central Club makes its appointments so as to conflict with our Branch Club, regardless of our priority, we shall deem it a right to retain the head of our most worthy Grand Master, whilst the Central Club may take the body. Passed by full vote.

The Director, W. P. Crow, to the Central was then called upon to report progress of said Club. He reported an enthusiastic meeting held by the Central Club of Modesto; full corps of Directors elected; meeting of the same called and held; committee appointed to prepare and propose articles of association and incorporation, and the same would be presented to that Club to-day for their consideration; and at the next meeting of this Club he hoped to show the institution in running order, belted and and geared ready for the steam.

The President then notified the Club to proceed to elect delegates to the State Farmers' Union, to meet at San Francisco, April 9th. The following were elected: Wm. Wardner, S. M. Gallup, J. W. Roberts, E. A. Hall, S. C. Davis, W. P. Crow and Jos. Dominici.—*News*.

Stanislaus Farmers' Club.

The Club met March 22d, President Warder in the chair.

The report of the Board of Directors, recommending the establishment of a Savings and Loan Bank, at Modesto, with a capital stock of $250,000, was received, and after some debate was adopted.

A motion was made and carried, the following committee of five be appointed to solicit subscription, viz: C. J. Creasey, L. B. Walthall, John W. Roberts, R. B. Smith and T. D. Harp.

Motion made and carried, that our delegates to the State Farmers' Union be instructed to withdraw the amount heretofore authorized to be paid until they are satisfied that we, as a club, can coöperate with them.

On motion of Mr. Warder, the Constitution was so amended as to increase the number of Directors to eleven.

The election of the eleven Directors was, on motion, postponed.

On a motion carried, it was directed that no

one be allowed to subscribe for more than 100 shares of the capital stock of the Bank—recommended by the Directors.

The Committee on Subscription reported $122,500 subscribed before adjournment. The Club then adjourued to meet on Saturday, March 29th.

Richland Farmers' Club.

The sixth regular monthly meeting of the Farmers' and Fruit Growers' Club of Richland was held on Tuesday evening, March 4th. The principal business of the meeting was the adoption of several amendments to the constitution, giving more scope to its actions aud purposes, and placing it upon a business footing.

The principal subjects that have engaged the attention of the club hitherto, have been the planting of trees and vines, and the quantity of land necessary for families and the best and easiest way to make a living on small farms.

Resolutions have been passed against allowing any stock to run at large, and in favor of planting arbor trees on all the roads aud streets in uniformity, eight feet from the sides of the streets, allowing the space between the trees and the line for a walk. The club has received a communication from the Fairview Clnb in regard to co-operation.—*Southern Californian*

Vacaville Agricultural and Horticultural Association.

Clnb met in regular session at Vacaville on 29th, Pres. Bingham in the chair. Secretary Lewis being absent, J. Hnckins acted as Secretary pro tem. A motion was then made and carried, that this Association pay the sum of twenty-five cents for each member, and thns become a member of the State Farmers' Union.

A motion was then made and carried, that the delegates be appointed by the President to represent our Club at a meeting to be held by the State Farmers' Union in the city of San Francisco on the 9th day of April, A. D., 1873. Thereupon the President appointed T. H. Hyatt, G. F. Barker and G. K. Miller as delegates to said Convention.

The question as to the best mode of placing our fruit before the market whereby the producers could realize the most money for his produce, was discussed at some length, but no definite action was taken.

T. H. Hyatt then requested members to remain after adjourning the Club meeting, for the purpose of discussing the propriety of organizing a club or lodge of the Patrons of husbandry, more particularly known as a Lodge of the Grange. The Association then adjourned.

Our reporter did not remain to take part in the effort to affect an organization of the grange, but has been informed by one who was present and took part in the deliberations, that it was unanimously agreed that the best mode of protecting the interest of the farmers and producers, was the organization of Lodges of the Grange in every farming community through the State, and that immediate steps be taken to perfect an organization of the Grange at Vacaville, Solano county, Cal.

J Huckins Cor. Sec.

Agricultural Notes.

CALIFORNIA.

ALAMEDA.

Encinal, March 29: Important improvementa are under way, and real estate, so long inactive, is reviving. Business prospects are rapidly improving. Many inquiries are made by strangers visiting us as to our church and school accommodations. Of the latter we can say that they will compare favorably with any in the State; while church-goers cannot fail to be suited. As to climate, we consider Alameda the peer, if not the superior, of the best locality on the Pacific sea-board. Taken altogether, Alameda is one of the choicest locations for a residence in the State.

Call, March 31: More attention has been paid to blooded horses in this State within a year or two past, than ever before, and the result is that the Californian mustang blood is fast dying out, and fine-stepping, neat-limbed horses are becoming the rule, and balky half-breeds the exception, on our streets. Our friends across the bay are paying considerable attention to their equine stock, and claim that Alameda will soon be the banner county of the State.

Some of our San Francisco admirers of good stock have a large number of thoroughbreds at pasture on Charles Cushing's ranch, about one mile south of San Leandro. "Cayuga Maid," the great half-miler, now owned by Judge Mee, is up to her knees in clover here, in foal by "Woodburn." The same gentleman has also in the same pasture three fine thoroughbred mares with yearling colts. G. D. Morse, the photographer, owns a yearling colt by "Irwin Davis," in the same field. Mr. Swain, of restaurant fame, has also here a fine large bay trotting horse of reputed excellence.

CONTRA COSTA.

Ledger, March 29: Fine Figs.—Colonel Walton, who has the best vineyard and orchard in this section of the county, situated some seven or eight miles east of Antioch, recently brought to town two hundred pounds of figs, the product of his orchard, which for size and flavor will compare favorably—in fact are pronounced superior. In curing for market he simply dips them in lime water and allows them to dry. The soil and climate of this valley seems especially favorable to the culture of this tree, and no doubt in time the growing and preparing of figs for market will be much more extensively engaged in than now.

Correspondence.—The joyful prospects of a good crop, and consequently plenty of money, causes our citizens to be wide awake and unusually cheerful. On Friday evening last a temperance society was organized, composed of between twenty-five and thirty ladies and gentlemen. Our public spirited citizens have also thought it necessary to arrange for greater conveniencies for public and private meetings, and to this end a meeting has been held and steps taken to construct a new hall to be occupied for public meetings, amusements and for the different societies, Masons, Odd Fellows and Templars.

The Farmers' Club is in a flourishing condition and at every meeting ideas, new, practical and useful, are advanced. It is to be hoped the formation of Clubs all over the State, with concert of action will accomplish much good.

CALAVERAS COUNTY.

Chronicle, March 28: Weather.—The weather continues pleasant—too pleasant in fact to suit the ideas of ranchers in reference to the wants of the country. They say rain is needed to insure good crops. The surface of the ground is baking, the grain not being high enough to shade it. There have been indications of rain, during the week, but so far it perversely refuses to wet up.

COLUSA.

Call, March 31: The Crop Prospects.—We had a beautiful drive of three hours and a half, with fine farming land to the right of us, and to the left of us almost a perfectly level plain, until we come to the Butte Mountains, which we cross. We saw in many places wheat a foot high, other fields where the grain had just been sown, and again where the farmers were breaking up the soil for the Fall crops. The farmers have hopes of a very prosperous season, particularly if they have one or two more showers, which in all probability they will have soon, for even now I can see from my window a few clouds not much "bigger than a man's hand," but they will grow bigger and bigger, and after a while we will have rain; that's the way old Uncle Ben—the head gardener at home—used to prophesy.

EL DORADO.

Republican, March 27: Promising.—Accounts from all portions of the county assure us that the prospects for an abundant grain, hay and fruit crop was never better at this season of the year. It is also a fact that the mining interests of the county are in a more healthy condition than they have been in before for years.

Altogether, we predict that this will be one of the most prosperous seasons for El Dorado county that we have had during the past seven years. This ought to give us new confidence and new energy, and enable us to guard against future hard seasons. All that is necessary to secure our permanent prosperity is ample ditch facilities and cheap water, and we can have this whenever we *will*.

FRESNO.

Expositor, March, 28: The Epizootic.—The horse epidemic has made its appearance at Fresno City. Russell Fleming informs us that several of his horses are afflicted. The disease seems to be of a mild form. It has also put in an appearance at Visalia, Tulare county.

KERN.

Southern Californian, March 27: Shearing. Our sheep men are for the most part at present engaged in shearing. The clip, from all accounts, will be a good one; the weather and other circumstances are propitious, but prices are not ranging as high as was anticipated by many.

MONTEREY.

Argus, March 29: The Weather.—Our regular spring weather has apparently set in. Fogs prevail, and the trade winds blow daily from off the ocean. The days are generally pleasant, and nights just cool enough to make a person sleep comfortable under his blankets. Vegetation of all kinds is springing up rapidly, and the crops look splendidly.

PLACER.

Herald, March 29: Farming Prospects.—Gentlemen from Lincoln and Roseville inform us that crops never looked better nor more promising at this season of the year than now, in the purely agricultural portion of Placer county. Scarcely any rain has fallen this month (only one shower), and though the weather has been all that heart could wish, the farmers want some rain to help their growing crops and to soften the land they are plowing for summer-fallow, as it is getting too dry for that purpose.

Alfalfa in the Foothills.—Joseph Saunders sowed at his place in the foothills, back of Virginia, on red soil, last season, on the 20th of April, six acres of land in alfalfa. It grew finely, yielded two crops of hay during the season last year, and plenty of good pasturage besides. It was irrigated three or four times during the dry season. He also sowed a small piece and gave it no water, and even it set well, did well and lived over and now presents a fine appearance.

The six acres irrigated last year has been pastured this spring with five horses and a lot of hogs, and it is now some fifteen inches high, and, notwithstanding the pasturage, would cut two tons to the acre.

MERCED.

Valley Argus, March 29: Cotton.—From the preparations which we observe among farmers along the Merced river, we conclude that the crop of cotton planted this year will be fully double that of last season. The experience of the past two years has proved cotton to be a paying crop upon our bottom lands, and men who have been used to its culture in the Southern States are turning their attention to the production of the staple here with a view to making it a permanent business. On the Tuolumne river, in Stanislaus county, and on the west side of the San Joaquin in this county, farmers are planting small fields in order to test the adaptability of the soil to the production of the plant; and on Mariposa Creek, also in this county, some three or four hundred acres will be planted in cotton by Major J. L. Strong and his associates.

So far, planters have succeeded better in producing cotton in this county than in any other section of the State, and it is our opinion that in a few years more it will supercede wheat culture to a great extent, and be regarded as the most profitable crop that can be produced upon our rich bottom lands upon a large scale.

SANTA CLARA.

Gilroy Advocate, March 29: Early Fruit—Strawberries have been in the Gilroy market for the past two weeks, at the fruit and vegetable stand of S. Baldacci. This week at the same place, we noticed ripe tomatoes, the first of the season.

Eggs by the Cord.—Messrs. Van Schaick & Co., of this city, made the largest shipment of eggs yesterday that ever went from Gilroy at one time. It consisted of forty-eight boxes of eggs, measuring two cords lineal measurement, weighing 2,640 pounds, and containing 1,440 dozen.

Plowing and sowing are still being pushed ahead rapidly, and in the bottom lands an abundant yield is assured. Considerable grain has been sown on hill-land since the rain has ceased, but this will require more moisture, to make it productive. While three or four inches below the surface the earth is still moist, the top is dry, and after being plowed the harrow does not pulverize it effectually, but leaves it lumpy and very porous. The grain not reaching the wet soil, but falling among the lumps, is not covered sufficiently to insure a healthy growth. Rain is therefore needed to dissolve the top earth, so that it may thoroughly cover the seed. In some places the blades are just beginning to show themselves, and look healthy and vigorous. Should we get more rain soon, it will be of immense benefit, and materially assist the growing crops.

SAN LUIS OBISPO.

Tribune, March 29: Weather.—For the last week the weather has been perfectly delightful, no fogs and but very little wind, and just sufficiently cool to be bracing. It is true, that without the aid of our local columns, the people of our county would hardly notice or pay attention to the weather, our climate being so uniformly mild and pleasant that we only note the changes for the bad, which only happens very semi-occasionally. Our average weather would draw from the columns of the papers of Santa Barbara a column or so, but we are forced to speak the truth, delightful or pleasant, and there the matter must end, as our language is wanting in adjectives.

Crops.—We have been out in the country on several occasions during the past week, and have been pleased to see the promising condition of the crops in our county. Our observations have taught us that the croakers who have failed in agriculture in this county were wanting in those essential qualities, muscle and energy.

No county in the State offers as many inducements to farmers as ours, we only need a thousand or two Johnsons, Barnebergs, Leffs, Flints, Jacksons, etc., to place our county among the foremost of the State agriculturally. With a good soil unequalled, climate unsurpassed, with plenty of room, and a never failure of crops, a just reward awaits him who properly applies reason and energy.

SONOMA.

Democrat, March 29: Mr. Romulus Bonhomme, a silk culturist of large experience has established a silkworm cocoonery in the town of Sonoma. He has rented the old barrack building of Gen Vallejo. The eggs have commenced hatching; already there are over two thousand worms. Mr. Bonhomme expects this year to hatch 20 ounces of eggs. He procured an abundant supply of mulbery leaves from the orchards of Mr. Dresel and the Vinicultural Society. So far the experiment is progressing satisfactorily.

The barracks is now being fitted up for the future work of the worms. Forty days from the time it is hatched the cocoon is spun; the butterfly lives, deposits its eggs and dies. The company of which Mr. Bonhomme is a member was incorporated at Sacramento about six weeks ago. Its object for the present is the production of eggs for the European market for which there is just now a demand on account of a disease among the worms in silk-growing countries. The ultimate object of course is the establishment of a silk manufactory.

Mr. Bonhomme was formerly an agent of the Italian and French Governments for the purchase of a supply of healthy eggs in China for those countries. About a year and a half ago he established a cocoonery in Los Angeles and made the first year 560 pounds of raw silk, and beside having eggs enough for his own use, he exported a quantity to Europe. In addition to the cocooneries already under way in Los Angeles and Sonoma, branches will be established in Napa and Alameda counties.

Flag: Joshua Jordan came in, one day last week, and reported crop prospects good in Alexander Valley. He has twenty acres of alfalfa on which about ninety head of young cattle are feeding, and still the food is very high and would support many more animals.

Anderson Valley.—Everything is prospering in our little valley. We have had beautiful weather for the past week and crops look fine. The mountains now furnish good range for stock.

STANISLAUS.

News, March 29: Monster Cow.—There was to be seen, last Wednesday, hanging up in Captain James' meat market in this place, the largest and fattest cow that we have yet known to be slaughtered in this part of the country. Her net weight, ready for the butchers block, was 800 pounds. She was owned by Mr. Fortenbery Smith as a milch cow, and shipped from Stockton to this place by rail.

SUTTER.

Banner, March 29: Ahead as Usual.—Some of our exchanges make mention of a mammoth beet raised somewhere in the lower country, weighing one hundred and fourteen pounds. Now that may be a good showing for that section, but when it comes to agricultural products Sutter county is second to none. We have a turnipseed weighing one hundred and ninety-four pounds! (it was not a very good year for turnips either, that season) and haven't made half as much fuss over it as they are making over that one hundred and fourteen pound beet. Speaking of beets, we have several "dead" beats around town that will double discount one hundred and fourteen pounds. We omitted to mention that our turnipseed is surnamed Solomon.

On His Way.—On the 21st parties at Colusa caught a couple of sturgeons, and desiring to have a little fun, they attached to the tail of one of them a large tin can, sealed tight, with the word "Colusa" painted upon it. The *Union* thus notes the arival of his honor at Sacramento: "Last Monday one of the watchmen at the Sacramento and Yolo bridge observed a tin can coming rapidly down stream. Every moment or so a big fish would leap out of the water near it and then disappear, and at the same time the can would be lost to sight. As the can neared the bridge, the observer noticed the fin of a large fish sticking out of the water, while the can zipped along in its wake. The fish continued to jump out of the stream at brief intervals, slinging the can around very much as such things have been known to hound behind a betrayed dog, and evidently either greatly delighted or terribly disgusted with the unnatural appendage.

New Hay.—The first new hay we hear of was cut by Williams brothers, last week, at North Butte. The grass cut was eighteen inches in hight.

TEHAMA.

Independent, March 29: From Red Bluff.—We are now enjoying the liveliest season of the year. Spring with her vineyards and gay flowers filling the air with the delicious fragrance of their sweet exhalations, while the flocks and herds cover the rolling hills lying to the west and the mountains and mountains valleys to the east of Red Bluff.

The crops everywhere are in the most flourishing condition and the producers of every class look smiling and hopeful. Already the signs of a bounteous harvest that now seems certain is beginning to be felt. Trade is reviving every where, the streets of town is astir with teams from the country from early morning till late at night, bringing to market the produce of the surrounding country for shipment or sale.

We are informed that it rained quite hard at Red Bluff on Wednesday night, while not a drop fell in this town, only twelve miles distance.

The most of our farmers have been obliged to give up summer-fallowing for the present; on account of the dryness of the ground. The crops look splendid throughout the county. The only fear being the straw will gain too large a growth before it commences to head. All kinds of fruit promises a large crop.

SAN DIEGO.

Union, March 20: The Angora Goat.—The experiment about to be attempted by the Guadalupe Island Company to improve the common goat stock at present on the island by the introduction of pure blooded Angora bucks, has an important bearing upon the wool interests of the Pacific Coast. The men at the head of the enterprise—Messrs. Landrum of Watsonville, Santa Cruz county, and others, have demonstrated beyond question the feasibility of improving the grade of the common goat by judicious crossing with the Angora species, so as to make it like the latter fleece-bearing.

The Angora goat which is a native of Asia Minor, takes kindly to the herbage and climate of Southern California.

The effort made to acclimatize the Angora goat in the Northern States have not been very successful, and the number there at present is limited.

In this State they multiply at the rate of over 100 per cent. per annum, while the mortality after the first year of all goats under ten years of age does not exceed one per cent. per annum.

Guadalupe Island, upon which the experi-

[Continued on Page 220.]

A Lecture on Beet Sugar.

Delivered before the Oakland Farming, Horticultural and Industrial Club, March 28th, 1873, by PROF. A. F. PAETZ.

In the year 1747 Margraf, a Berlin apothecary, discovered in a plant growing wild on the shores of the Mediterranean a certain amount of sugar identical with cane sugar. He communicated the fact to the Berlin Academy and recommended the cultivation of the plant for the extraction of sugar from it; but at that period chemistry was just struggling forth out of alchemy and the time for the realization of such a plan had not yet dawned. Since then from that wild plant has been developed the present sugar beet, and out of that little discovery by Margraf has grown one of the greatest industries of the present day, an industry which has spread all over Central Europe and is evidently destined also to spread over a large portion of this continent.

In 1773 Achard, another Prussian, revived Margraf's project. He carried on a series of experiments in raising beets and making sugar on his farm at Caulsdorf near Berlin, and aided by the government, he founded in 1796 upon the domain of Cunern in Silesia the first beet sugar factory. In 1799 he presented several loaves of beet sugar to the king of Prussia; however, the enterprise not being remunerative and giving too little promise of becoming so was abandoned.

After Achard had published in 1797 his first report on making sugar from beets, the English government, frightened at the prospect of a competition with the cane-sugar of the West India colonies, offered him a large sum of money to acknowledge publicly that he had been mistaken in the results of his trials; but he indignantly refused the offer. The statements of the amount of sugar obtained by Achard vary between 1 and 3 per cent.

The beet sugar project assumed a different aspect when by Napoleon's decree of the 21st of November 1806, the harbors of the European continent were closed against the products of British colonies, while England in return prevented the products of other colonies from entering continental harbors. The price of sugar rose in Germany to over one thaler per pound, and there as well as in France beet sugar factories sprung up and did a lucrative business, although the yield of sugar scarcely reached 3 per cent. It is now in France from 7 to 8, in Germany and Russia from 8 to 9 per cent. A sugarie working 500 tons of beets in a campaign was then thought quite extensive; there are now establishments working over 50,000 tons.

After the downfall of the first Napoleon nearly all beet sugar factories ceased to work; but a high tariff on foreign sugars, amounting to about 5 cents per pound soon revived the enterprise in France. Great improvements were made in the manufacture; a good rasping machine and hydraulic presses were introduced; steam took the place of direct fire in the boiling of the juice, the purification of which was greatly advanced by the employment of plenty of bone-coal, and means were discovered for the revivification of the bone-coal after it had become too inactive. In consequence of these improvements the yield of sugar increased to from 4 to 5 per cent.

Meanwhile the industry was slumbering in Germany until towards the year 1830 the low prices of grain led to its revival by the land owners, who engaged in it to save themselves from ruin. Great attention was paid to the agricultural part of the business, especially to the raising of the right kind of beets, since experience had taught that beets were wanted which were rich in sugar and poor in salts. It was particularly in the Prussian province of Saxony that beet-sugaries took firmly root, and part of the land there had been well prepared for the new crop by the former cultivation of chiccory. Further improvements in machinery and the processes of extracting, purifying and concentrating the beet juice were introduced, more sugar was obtained, and under the fostering protection of the Zollverein or Custom-Union the beet sugar industry gradually grew up to its present proportions, while it also extended into Austria and Russia. And it may here be mentioned, that the solid basis upon which the industry now stands, dates from the time that the factories ceased to be established in cities, depending for their supplies on the surrounding country, and that neighboring landowners associated themselves, built their own factories and became the manufacturers of sugar from beets grown upon their own fields.

The amount of beet sugar produced in France was in 1840, 22,000 tons; in 1850, 64,000 tons; in 1860, 140,000 tons, and in 1870, 300,000 tons. The former protection of the industry in France having accomplished its purpose, the French beet sugar manufacturers are to-day not only unprotected, but placed at a disadvantage in competition with the French colonists, who enjoy a protection of half a cent per pound on their sugars.

The states of the German Zollverein produced in 1840, 13,000 tons of beet sugar; in 1850, 52,000 tons; in 1360, 126,000 tons, and in 1870, 250,000 tons; and of the sugar now made in the Zollverein about one-fifth is exported, competing with the cane sugar of the Spanish and other colonies.

The present production of beet sugar is in Austria about 100,000, and in Russia 200,000 tons per annum. There are nearly 2,000 beet-sugaries in Europe, and they furnish more than one-fourth of all the sugar produced in the world.

Beet sugar is perfectly identical with cane sugar. Their chemical composition is: 72 parts of carbon, 11 parts of hydrogen and 88 parts of oxygen, or expressed in equivalents: $C^{12} H^{11} O^{11}$ Sugar of this composition is known to exist in any considerable quantity only in the cane, the beet and the maple. There are persons who imagine that beet sugar has a peculiar smell or taste of its own. This prejudice arises from the circumstance that when the sugar has not been well freed from adhering syrup it smells and tastes disagreeably, because beet syrup does; but pure beet sugar has no smell, and its taste is the same as that of cane sugar.

The beet sugar industry stands in such close relation to agriculture, that it can only be carried on profitably where the managements of farm and factory go hand in hand, where the refuse and residues are utilized as food for cattle and other stock, and are as manure given back to the soil, and where due attention is paid to a proper rotation of crops.

The different varieties of sugar beets, of which the Silesian, the Siberian and the Imperial are the principal representatives, have been obtained through cultivation from the Beta vulgaris. Beets to be rich in sugar must be of moderate size. Their weight should not exceed three pounds. Those of about two pounds are the best. Beets of this size contain commonly from 10 to 12 per cent. of crystallizable sugar, though frequently they are found to contain as much as 14 per cent. and even more. Besides sugar they contain 1½ per cent. of albumen and other nitrogenous substances, less than one per cent. of cellulose and pectose, from 3½ to 4 per cent. of mineral salts and fatty, gummy and other matters, and about 83½ per cent. of water.

Although the sugar beet will grow in almost any soil, a deep, sandy loam is that best suited to its nature. In fact, good grain land is also good beet land. In a country where the summers are hot and dry, a stronger and more retentive soil is required than where they are cooler and more humid. Soil charged with mineral salts must be avoided, for they are eagerly absorbed by the beets and are a hindrance to the extraction of the sugar.

There are but few cultivated plants which thrive under such varied conditions of climate as the sugar beet. In Europe it is successfully grown from the Mediterranean to near the Arctic circle, and from the Atlantic to the Caspian Sea. It is therefore fit for cultivation nearly all over the United States so far as the soil permits.

I should have no time left for speaking of the modes and means by which sugar is obtained from beets, and of which so little is yet really known in this country, were I to enter much into details regarding the agricultural part of the business. I shall therefore confine my remarks on the growing, harvesting and preserving of the beets to what appears most essential.

The land must be prepared by deep plowing and thorough manuring, whereupon it is harrowed and an iron roller is passed over the surface to make it even and break up clods. The amount of seed needed per acre is from 10 to 12 pounds. Before sowing, the seed is soaked in water for 24 hours and then piled up into small heaps and left till signs of germination appear, after which it is rolled in bone-coal dust and thereby covered with a dry adherent coating. It is then drilled into the land by a sowing machine, which cuts at a time several parallel grooves from 14 to 18 inches apart, drops the seed in a continuous stream into them, together with a small amount of some powdered fertilizer, and finally covers the seed, which should be buried at a depth of from 1½ to 2 inches. The young plants usually make their appearance from 10 to 12 days after the seed is sown. Then follows the hard labor of alternate weeding, cultivating and transplanting, of which I will only say that its final aim is the growing of a good, sound beet every 14 inches along the lines in which the seed was deposited.

The beets are ready for harvesting when the leaves become yellow. They must be taken up before frosts or rains set in; but so long as there is no danger that they will be injured by freezing or that the production of new leaves will be stimulated by rain at the expense of the sugar in the beets, it is best to let them stay in the ground.

The beets are dug up by an implement resembling the plow, which is drawn by two horses. They are then well shaken and placed in rows, so that the roots are all on one side and the leaves on the other. This is done to facilitate the work of cutting off the leaves, which is performed by means of a strong, sharp knife, the blade of which is about a foot long and nearly two inches wide. With such a knife the leaves are cut off by one stroke.

With the harvesting of the beets, the making of sugar begins simultaneously. The beets required for immediate consumption are every day or every few days taken to the factory, while those intended to be worked during the winter are put up in piles for preservation. In Europe the usual mode of keeping the beets is as follows: Long pits or trenches about two feet deep and 10 or 12 feet wide are dug in the soil and so far as necessary provision is made for proper drainage. In these pits the beets are piled up, promiscuously in the middle, but at the sides in symmetrical walls slightly receding as they rise, the roots being placed with their crowns outward. When the piles have attained a hight of 7 or 8 feet, the beets on the upper surface are evenly laid and a portion of the earth that was taken from the pit is thrown all around against the pile, so as to form a wall about three feet thick at the base and gradually narrowing upward. The top of the pile, for a width of about 4 feet, is covered with 6 or 8 inches of straw, which is, however, replaced by a cover of earth on the approach of the period of strong frosts. If there is much difference in the beets, those of nearly the same condition are put as far as practicable in piles by themselves. The mildness of our California climate makes it unnecessary to bestow so much care upon the preservation of the beets. At Alvarado it has been found sufficient to run parallel ditches about 16 feet apart across a field, to pile the beets in the described manner upon the ground between the ditches, and to cover the piles with about 6 inches of straw. It is also worth mentioning that the sugar beet ripens here about a month earlier than in Europe and in the United States east of the Rocky Mountains.

And now let us pass through a beet sugar factory, going in with the beets and coming out with the sugar.

The first apparatus we notice is the root washer. It consists of a drum about ten feet long and four feet in diameter, the periphery of which is formed of wooden slats placed about two inches apart. The drum slowly revolves on an iron shaft, resting slightly inclined, upon a tank filled with water, in which the drum is thus partly immersed. The beets are fed into the drum at the higher end, and after being well cleansed of extraneous matter and freed of worthless rootlets, they are discharged at the other end by a self-acting device, which is in substance a segment of an Archimedian screw, that throws them on an inclined grating, from which they slide on to an elevator. They are then raised to an upper floor of the establishment, where they pass either into a rasping machine, to be converted into a fine pulp, or into a slicing machine to be cut into slices 1-16 of an inch thick and about ⅜ of an inch wide, according to the method employed for extracting the juice.

And here I have first to speak of the different ways in which the extraction of the juice is still effected in different factories, and regarding the respective merits of which beet sugar makers are far from coinciding in their opinions.

The oldest and still most common of the processes now practiced is the press process. The pulp obtained from a rasping machine is put into woolen sacks which are piled with an iron tray between each pair, upon the piston plate of a Brahma press, and the juice is squeezed out by hydraulic pressure. This process has the advantage of furnishing a very fair and scarcely variable percentage of juice in a pretty concentrated and otherwise favorable condition; it has the disadvantage of requiring much manual labor and motive power and a frequent replacement of used-up-press sacks by new ones.

In the second process the separation of the juice is effected by means of centrifugal machines, which I will briefly describe. Upon a vertical shaft is fastened a drum, made of sheet metal, about 3 feet in diameter and 18 inches deep, opened on top and closed at the bottom, which rises around the shaft in the shape of a cone. The drum is surrounded by a stationary casing and its circumference is abundantly perforated with holes over which is placed a sheet of closely woven wire cloth.

The machine is gotten in readiness for work by revolving the drum, or basket as it is termed, until it has attained a speed of about 1,200 turns in a minute, when a batch of pulp from the rasping machine is run into it. The pulp, partially guided by the central cone, flies at once, and pretty evenly, to the circumference. Its liquid portion passes through the wire screen and the perforations in the drum, and being arrested by the outer casing, flows into a trough which leads to a reservoir. To secure what juice may yet be retained in the fibrous residue which covers the screen, a spray of water is introduced and shortly after the machine is stopped by a brake. The residue is then taken out with a wooden scoop and the machine is again set in motion for another run. The working of each batch, which consists of from 20 to 25 gallons of pulps, occupies about 15 minutes. This process requires less manual labor than the press-process and very little outlay for repairs, but considerable motive power and great care especially as regards the use of water in the machine. The more the juice is diluted, the more it must be boiled, and the more it is also apt to deteriorate. The centrifugal process is in use at Alvarado, and under the management of Mr. Otto is giving excellent results.

The third mode of procuring the juice is that by Schützenbach's maceration process. His apparatus consists of twelve or more cylindrical tanks, somewhat wider than deep, with perforated false bottoms. They are arranged terrace-like, and in each tank stands a vertical shaft with horizontal arms, to which stirrers are attached. The operation begins with filling the eight upper tanks to a certain hight with pulp from the rasping machine, whereupon the stirrers are set in motion. Water is then let into the uppermost tank, while from its bottom the juice is allowed to pass into the second tank, followed by juice more and more diluted. From the bottom of the second tank the juice flows into the third tank, and so forth, until by the time it has passed through the eighth tank it has become sufficiently concentrated, while the pulp in the first tank has become practically desugarized, and is to be removed. The second tank now becomes the first, and the ninth tank the last, and thus the operation proceeds on the plan of rotation. Schutzenbach's process gives good results. It requires but a moderate amount of manual labor and motive power, but close attention; and the residue, which contains much water, can only be utilized as food after being pressed or passed through centrifugal machines.

The fourth and latest, and by far the most scientific mode of extraction, is that by Robert's diffusion process. This is based upon the principle of osmose, that is of the diffusion of substances in solution through porous membranes and other septa. If pure water and a solution of cane sugar are separated by a porous diaphragm, sugar will speedily pass through the latter until the liquid on either side contains an even percentage of it. If a solution of albumin is substituted for that of sugar, it will take seven times longer until the diffusion is completed, and with a solution of caramel it will take 14 times longer. As a general rule, the more readily a substance crystallizes, the more readily will it diffuse. For Robert's process the beets are cut by a slicing machine into ribbons. These are introduced into high cylindrical vessels which are then tightly closed. Upon the bottom of each vessel lies a spiral steam pipe, and above this a perforated false bottom. Water of a certain temperature is let into the first vessel, and being left for a short time in contact with the material therein, it is by a fresh quantity of water entering under pressure forced out at the bottom of the vessel through a pipe into the top part of the next vessel, and this operation is continued until the liquid has been passed through eight vessels. Let us suppose that each vessel is charged with 1,000 pounds of beet slices, containing 96 per cent. of juice and the latter 12 per cent. of sugar, and that 960 pounds of hot water are let into the first vessel; each juice-cell being formed of a porous membrane, osmose will at once ensue, and in a short space of time the whole of the 1,920 pounds of liquid, partly within the cells and partly without, will contain 6 per cent. of sugar in solution. If now the free liquid is run into the next vessel and fresh water is made to take its place in the first, after a little while the liquid in the second vessel will contain 9 per cent. of sugar and that in the first 3 per cent. It is easily seen how, by running the liquid through a number of vessels charged with sliced beets, it will take up sugar until it has acquired the same percentage of it as is contained in the natural beet juice.

An apparent similarity will be noticed between the processes of Schutzenbach and Robert. There is no doubt that in the so-called maceration process, diffusion also takes place; but by the conversion of the beets into a pulpy mass most of the juice is set free, so that it is directly taken up by the water, and that juice naturally contains its full quantum of those nitrogenous and other substances, the separation of which has always formed one of the principal difficulties in the beet sugar manufacture. On the other hand, by the process of diffusion scarcely anything is extracted besides sugar and a trifling amount of crystallizable salts, and only such other impurities go into the liquid as are contained in the comparatively small quantity of juice which is set free by the cutting of cells in slicing. The extraction of the juice from beets by diffusion was tried already 50 years ago by Dombasle; but the attempt was premature. Graham's investigations on osmose had first to be made before that principle could be applied understandingly and with good results in technical practice. This is another proof of the paying qualities of purely scientific research. The diffusion process is in use at the sugarie near Sacramento, where it was introduced and has been successfully carried on by Mr. Von Ehrenstein.

The residue from the different processes described is used, together with hay and other material, for fattening cattle.

[Concluded next week.]

Pacific Coast Appropriations by Congress.

The following is a summary of special items for California, contained in the various general appropriatian bills passed by the last Congress: Indian bill, $940,900; for legislative purposes, etc., $338,705; for fortifications, $240,000; for Post Offices, $950,000; for river and harbor improvements, $100,000; naval purposes, $98,809.75; Sundry civil appropriations, $1,839,549.80; deficiency, $218,287. Total for California, $3,724,147.42. This sum is equal to more than four times the aggregate for all the remaining Pacific Coast States and Territories.

The aggregated items of Nevada are as follows: Indian Bills, $27,500; Legislative purposes, $144,400; Sundry Civil purposes, $53,700; Deficiency, $52,978.58. Total for Nevada, $298,578.88.

The aggregated items for Oregon are as follows: Indian Bill, $153,850; Legislative purposes, $795; River and Harbor Improvements, $23,000; Snudry Civil appropriations, $178,500; Deficiency, $960.58. Total For Oregon, $363,310.58.

The aggregate items for Arizona are as follows: Indian Bill, $341,000; Legislative purposes, $26,500; Snndry Civil Appropriations, $72,811.80; Deficiency, $152,523,77. Total for Arizona, $593,835.58.

Aggregate items for Washington Territory are as follows: Indian Bills, $11,185; Legislative purposes, $44,509; Snndry Civil Appropriations, $11,585; Deficiency, $1,783.22. Total for Washington Territory, $273,883.22.

It is possible that some of these items, especially those pertaining to surveys of the Pacific Coast, and collection of mining statistics, etc., contained in the aggregate amounts for California, may be partly used for Nevada, Oregon and Washington Territory.

GREAT GYPSUM DISCOVERY.—About seventy-five miles south of Pioche, says the *Record* of March 19th, a discovery has been made of immense deposits of pure gypsum. They were found a few days ago, by Joseph Mayott, of this city. A fine specimen from the deposits is now before us. It is a white laminated mass, with satin lustre. Pure gypsum, such as we take the specimen before us to be, carries nearly fifty per cent. of sulphuric acid, the balance of its substance being lime and water, the former predominating. It is of volcanic origin, being the product of sulphur gases escaping and the lime of decomposing lavas. In the Mammoth Cave, in Kentucky, gypsum is found in the form of rosettes or flowers, vines or shrubbery. Burned and ground it forms plaster of Paris. We cannot see any immediate source of wealth in these Lincoln county deposits; in the future, however, they may become valuable.

Useful Information.

Spoiling Mirrors.

It is a fact worth knowing, but which does not seem generally understood, that the amalgam of tin foil with mercnry which is spread on glass plates to make looking-glasses, is very readily crystallized by actinic solar rays. A Mirror hung where the sun can shine on it is usually spoiled; it takes a granulated appearance familiar to housekeepers, though they may not be acquainted with its cause. In such a state the article is nearly worthless; the continnity of its snrface is destroyed, and it will not reflect outlines with any approach to precision. Care should therefore be exercised in hanging. If any of our readers have mirrors which appear to be spoiling, it would be well to ascertain whether the direct sunlight strikes them. If thus exposed, they can probably be saved from further injury by simply changing their position. The back as well as the front must be protectcd. A small glass hung in a window, where the rays strike it behind, is peculiarly exposed. The back should always be covered where the beams are likely to touch it.

The greatest danger to looking-glasses, however, is in transporting them. Very expensive ones have been seriously injured by careless handling when merely carried across a street. The men who move furniture are seldom fnlly aware of these possibilities, and need to be cautioned and watched. Frequently a man or boy may be seen in the street carrying a mirror in such a way that the full glare of a noon-day strikes and injures it. Owners of such articles would, as a rule, be able to keep and use them much longer if they would exercise much caution in this regard. To re-silver a pier-glass often costs as much as one-fifth of the original price of the article; while the common glass is seldom worth re-silvering.

It is also well to avoid hanging a mirror near a stove or fire-place, where the heat radiated can reach it. If this precaution is neglected, grannlation is likely to occur, even in a comparatively dark room, by the influence of warmth instead of light. A lamp or gas jet, if placed too close while burning, though it may not crack the glass, will also often bring about the same injurious crystallization, and will even sometimes cause the amalgam to melt and rnn off.—*N. Y. Mercantile Journal.*

Pewter.

The principal constituents of pewter are lead and tin; the proportions of the two metals depending somewhat on the use to which the alloy is put. The best contains but sixteen to twenty per cent. of lead. Of this plates and dishes are made, which look like block tin, and can be brightly polished by rubbing. The addition of more lead cheapens the commodity, and gives it a dull bluish appearance. In France pewter vessels for wine and vinegar contain eighteen per cent. of lead. It has been found that a large portion of that metal in utensils for this purpose is liable to result in the formation, in the liquid, of the poisonous acetate or sugar of lead.

A little copper added in making pewter hardens the compound and renders it sonorous, so that toy trumpets and other rude musical instruments can be made of it. If the copper is replaced by antimony, hardness and a silvery lustre are the result. If the contents of the melting pot are stirred with a strip half of zinc and half of tin, or if a lump of zinc is allowed to float on the melted metal during the casting, the vaporized spelter seems to protect the fluid mass from oxidation, and prevents the formation of dross. Hence it is said to "cleanse" the mass.

Jewelers use polish and laps of pewter, and sheets of the article are to some extent used for cheap engraving, music notes, cr other figures being stamped on it instead of being cut with a burin or graver. The ease with which it melts causes it to be employed by tinsmiths and tinkers for solder. Care must be taken not to set pewter dishes, mugs, spoons, lamps, etc., on stoves or other hot bodies, as, if left for any time, they are liable to settle into shapeless lumps.

Imitation of Marble.—Imitations of marble are in great demand for ornamentation, and many different compounds are used for the purpose. Mr. Pichler, a gilder in Vienna, from his own experience, recommends the following composition as being simple and satisfactory: Into one pound of best joiners' glue, boiled rather thick, half a pound of rosin (colophonium) is to be slowly stirred. (Instead of the rosin the same quantity of Venetian turpentine may be used.) Into this plastic mass is worked a mixture of powdered chalk and of any mineral color of the desired shade, and after the addition of a little olive oil it is ready for monlding. It is sometimes convenient to have the material in the shape of thin sheets to be cut as required; and in this case the mass is rolled out upon a slightly heated plate. Mr. Pichler asserts that this composition hardens rapidly, and can be easily polished. When kept for a length of time it should be wrapped in a moist sheet, and exposed to gentle heat before using. The variegated marble-like veins can also be produced by kneading together differently colored portions of this mass.

Alcohol in Food.—The alcohol is not destroyed, but evaporated by the heat of cooking the food. In the preparation of extracts, the heat is intentionally not raised high enough to drive all the alcohol out by evaporation, as some alcohol must be retained, in order to prevent the extract spoiling. So the alcohol in wines serves two purposes, firstly, to prevent this spoiling (wines deficient in alcohol do not keep;) and secondly, as a solvent for the ethers peculiar to the different wines. The alcohol is present in pnre wines in so small quantity that no moderate use at table can intoxicate.

Good Health.

[From our New York Correspondent.]

The Fallibility of Medico-Legal Jurisprudence.

One's confidence in the testimony of "experts" is apt to be a little shaken by such absurd and contradictory evidence as we have been favored with in the Schœppe and Wharton trials. If these were exceptional cases, we could put them aside and soon recover our faith. But they are only instances of what is happening every day. Acknowledged scientific men, with remarkable uniformity, flatly deny each other's assertions from the witness-stand. "The learned gentlemen's solutions were imperfect, his filtrates impure, his precipitates ambiguous. Just listen to me for a moment and I will convince you of the dazzling whiteness of black." This sort of thing is entirely too common. With all respect to the profession, why is it, we ask, that you fail to distinguish between human and other blood corpuscles (as in the late Boston trial); or between the orange sulphide of antimony and the innocuous canned tomato? Even in so simple a matter as the detection of arsenic, errors are frequent.

A family in the vicinity of New York were all taken sick at once and manifested symptoms of arsenical poisoning, the doctors said. It was the brilliant new carpet that did it, of course. So an expert was called upon to examine the accused carpet for arsenical dyes. Needless to say, he found an amount proportionate to his fee. So a suit was brought against the seller of the carpet for damages, he, to cover himself, began another action against the wholesale dealer who sold it to him; the wholesale man passed it back upon the manufacturer; and the manufacturer upon the party who sold him the dye-stuff. There was no end of chemical evidence. Experts were more numerous than the trials. Finally it occurred to the dyer, who was in a bad way, having no one back of him to prosecute, to have a fresh analysis made of this much abused carpet by Dr. Chandler who pricked the legal bubbles by satisfactorily proving that there was not a trace of arsenic present!

It is easy enough to criticize. But how, or where, or when, can we look for a remedy? Charlatans are in the "expert" line, as well as every other. Who is to decide as to the capability of an analyst? A scientific school diploma doesn't seem to be as reliable an endorsement as that most respectable document is usually considered. Nor does previous success always guarantee future precision, as we find to our cost.

The truth is that the whole question of chemical analysis in the matter of poisons is not at all on a par with the rigidly accurate results of the bullion assay, for instance. Intelligent juries are rather slower in convicting on such testimony than of old. And the more thoroughly scientific a chemist is, the more readily will he acknowledge his weakness. It is only the quacks who will swear positively to their tests in doubtful cases. Most of our best American chemists refuse to tonch the poison business. There are exceptions—as Dr. Chandler and Dr. Doremus, who are undoubtedly at the head of the profession. Such men can not suffer from contact with the ordinary run of "experts," and may venture where the average chemist would be contaminated.

A. W., JR.

The Effect of Different Colored Light Upon Respiration.—The animal to be experimented upon was placed in an air tight box into which no light could penetrate except such as passed through glass of a given color. Air freed of carbonic acid was constantly admitted into the box, and escaped by a second opening, where it was passed through a vessel which contained some absorbent of carbonic acid, so that its amount could be accurately determined. Representing the quantity of carbonic acid respired by a dog in a given time, under white glass, by 100, the amount given off under black glass was 82.7; under violet, 87.78; under red, 92; under blue, 103.77; under green, 106.03; and under yellow, 126.83. The difference was still greater when the experiment was tried on a pigeon and on a hen. The authors came to the conclusion that green and yellow rays, which are the most important to the vegetable kingdom in taking up carbonic acid, are also most favorable to the respiration of animals—that is, enable them to give off the most carbonic acid.

Eating Late.—It is very injurious to eat just before retiring. The desire for it is simply the result of habit or of a morbid craving — and should be at once overcome.

Domestic Economy.

How to Dish up Oatmeal.

Oatmeal Porridge.—Take six table spoonfuls of meal and soak it over night in a pint and a half of water; in the morning stir it up well, and place the pail into a kettle of boiling water; let it boil for half an hour, as hard as possible; then stir in a cup full of milk and let it boil fifteen minutes. Season with salt, and eat with cream and sugar. Soaked over night, it requires much less cooking. A large supply can be made in cold weather, for it warms over as good as when fresh. It can also be made without the addition of milk.

Unfermented Oat Cake.—Soak one pint of meal in one pint of butter-milk, over night; next morning add one small tea-spoonfnl of saleratus, dissolved in water, and wheat flour enough to roll ont into thin cakes; bake on flat tins in a hot oven.

Oatmeal and Cocoanut Cracknels.—Oatmeal mixed with grated cocoanut produces a very attractive cake to both old and young. Take three heaping tablespoonfuls of grated cocoanut, or two of the prepared "dessicated" cocoanut; add to it half a pint of the finest oatmeal, and two heaping tablespoonfuls of sugar; stir it into one gill of boiling water, and mix it thoroughly together; turn out on the rolling board, well-floured, and roll it as thin and cut out as for common cracknels put a bit of citron and half a dozen currants into each cake, sticking them into the dough. Bake in a slow oven, and watch carefully, lest they brown a shade too deep. To make them crispy let them stand a day in an uncovered dish. A very palatable pie crust can be made from the dough of oatmeal cracknels by wetting it a little thinner; or in preparing it, add just half the measure of meal in hot water. Add no butter or lard, simply a little salt; roll out thin, and make the pie of cooked fruits, as this kind of paste bakes very quickly, and if the fruit requires cooking, it would become too hard and brown. Most persons who eschew all kinds of pies can eat those made of oatmeal without fear or trembling, and they will soon learn to consider oat meal an invaluable addition to their tables.

Oatmeal Breakfast Cake.—Take one pint of oatmeal, a pinch of salt, and just warm water enough to stir it up into a batter, like griddle cakes. Pour it into a shallow baking pan, and bake it for twenty minutes in a hot oven. But if on a cold morning your oven refuses to heat, turn your batter into a greased "spider," or frying pan; set it on the top of the stove and cover it closely; bake it fifteen minutes. Break open the cake spread with butter, you will find it quite toothsome. Or, if you prefer, bake it in small cakes on the griddle iron, first putting in a handful of wheat flour and a little more water. The cold porridge will also make delicious griddle cakes.

Oatmeal Cracknels, or Scotch Bannocks.—Take the finest quality of oatmeal stir in barley aud enough water to wet it through, add a pinch of salt; let it stand ten minutes to swell; then roll it out a quarter of an inch in thickness, first flouring the board and rolling-pin with flour, cut it with a biscuit cutter, and bake in a moderate oven, as these cakes will burn quickly, and only require to be of the lightest brown. They will snap easily between the fingers, and are delicious for lunch and when prepared and baked just right, they have a pleasant nutty flavor that is very agreeable, and requires no butter to make them palatable. Put into a close jar, they will keep several months. In the Highlands they preserve their bannocks in the barrels of oatmeal, and keep them a year or so.

A Common Illusion.—There are few greater illusions, than that which attributes the results of too much eating and drinking to excessive mental labor; and it is one of those fictions the author of which invariably comes to believe himself. We have among us hosts of hypochondriacs who are always calculating the effect of work on their system, and who base their calculations on headaches, and fits of nervous prostration, and symptoms of lassitude that have no more to do with intellectual exertion than they have to do with the Gulf Stream. They are, for the most part, the natural result of too many invitations to dinner, of incautious and intemperate consumption of food and drink at unseasonable hours, and of a curtailment of sleep occasioned by getting home early in the morning.

Miscellaneous.

Sewing Machines.

Few, we think, are aware of the immense number of sewing machines which is required to meet the annual demand for this now indispensable adjunct of the household. The Hartford *Times* has given the actual returns of the State of the different manufacturing companies for a single year—1872, and doubtless the number is but very little in excess of any previous year during the last decade.—We copy as follows:

	Machines
The Singer Manufacturing Co	219,758
Wheeler & Wilson Manufacturing Co	174,088
Howe Machine Co. (estimated)	154,000
Grover & Baker Machine Co	52,010
Domestic Sewing Machine Co	49,554
Weed Sewing Machine Co	42,444
Wilcox & Gibbs Sewing Machine Co	33,639
Wilson Sewing Machine Co	22 666
American B. H. O. Company	18,930
Gold Medal Sewing Machine Co	18,897
Florence Sewing Machine Co	15,797
B. P Howe Sewing Machine Co	14,907
Victor Sewing Machine Co	11,901
Davis Sewing Machine Co	11,376
Blees Sewing Machine Co	6,053
Remington Empire Sewing Machine Co	4,982
J. E. Braunsdorff & Co	4,262
Keystone Sewing Machine Co	2,665
Bartlet Reversible Sewing Machine Co	1,000
Bartram & Fenton Manufacturing Co	1,000
Secor Sewing Machine Co	811
Total for 1872	851,736

These remarkable facts show how literally, how generally, the new sewing machine has become a household necessity By far the greater number of these machines were sold at enormous profit. Owing to a combination on the part of a few leading machines, all the latter inventions have been obliged to agree to sell at the rate not less than $60; otherwise not even the payment of the royalty demanded in every such case could avail to give them the right to use the peculiar patented "feed" movement on which the success of every sewing machine is supposed to depend, and of which three or four have a monopoly. Thus a machine of which the total cost, for making, is not more than $15 or $18, sells for $50, $70, or $80, according to the style and finish. The larger part of these sales are to sewing women who have to work for a living, and to families of moderate means. There should be no good reason why machines as good as Singer's or Wheeler & Wilson's could not be sold for $30 apiece.

Chapped Hands.—In a healthy condition the skin is kept supple by an oily secretion, which answers the same purpose as oiling leather. During warm weather this secretion, in common with all the other secretions of the skin, is more abundant than in cold. When it is insufficient the skin becomes dry and harsh; and in those parts of the body where the skin is thick and subject to much motion, as on the hands, it readily cracks or fissures. The amount of this secretion is so much reduced in cold weather that the frequent washing of the hands with soap causes them to chap readily, and this the more certainly if the soap is not thoroughly washed off. The alkali in soap is usually in excess, and this combines with the oily secretion, and so deprives the skin of its natural lubricator. To prevent the hands from chapping, then, be careful to wash all soap from them thoroughly in clean water. This will ordinarily suffice; but if not, it will be necessary to make good the removed oil by the use of glycerine, honey, mutton tallow, etc.

Better than Gold.—We often hear little boys telling of the wonders they will do when they grow to be men. They are looking and longing for the time when they shall be large enough to carry a cane and wear a tall hat; but let me tell you, little boys, what is a great deal better than money, and what you may be earning all the time you are waiting to grow large to earn a fortune. The Bible tells us that a "A good name is rather to be chosen than riches, and loving favor rather than silver or gold." A good name does not mean a name for being the richest man in town, or for owning the largest house. A good name is a name for doing good deeds; a name for wearing a pleasant face, and carrying a cheerful heart; for always doing right, no matter what we may be.

It is a Curious Fact.—Illustrating the necesity of cleanlineεs and of keeping the porεs of the skin open, that if a coat of varnish or other substance impervious to moisture be applied to the exterior of the body, death will ensue in about six hours. The experiment was once tried on a child in Florence. On occasion of Pope Leo the Tenth's accession to the Papal chair, it was desired to have a living figure represent the Golden Age, and so a child was gilded all over with varnish and gold leaf. The child died in a few hours. If the fur of a rabbit or the skin of a pig be covered with a solution of india-rubber in naphtha, the animal ceases to breathe in a few hours.

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SAN FRANCISCO:

Saturday, April 5th, 1873.

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The Illustrated Press.

We like to record just praise to merit, wherever we find it. We have watched with much interest the first and two successive numbers and the advance sheets of the third, of a new California monthly, styled *The Illustrated Press*, published by Murray, Dewey & Co., San Francisco.

If ever there was need of a suitable publication to fill an unoccupied place in the great world of literature and art on the Western Coast, it was just when this publication had its inception. How well it has supplied—in public estimation—the void it was intended to fill, can be judged of from the fact, that two extra editions of the first numbers were necessarily printed to meet the demand, beyond what the publishers in their fullest anticipations had provided for; and yet only a part of the city of San Francisco has as yet been canvassed for subscriptions.

As a work of Art, its embellishments are fully equal to the best of their kind anywhere, and superior to anything ever before attempted here. In its literature will be found emanations from those who hold high place among the literati and pleasing writers of the Pacific Coast; whilst its typographical execution is simply unexceptionable.

We commend the *Illustrated Press* to the readers of the RURAL as well deserving their patronage. It is sold by subscription at $2 per annum in advance. Simple copies 20 cents. Address Murray, Dewey & Co., San Francisco.

ON FILE.—Chinese Labor; Carrots; Healdsburg; New Subscriber; Santa Barbara; About Silk, from F. G.; and The Future of our Tule Lands, next week.

The New Strawberry Basket.

Among the applications for patents in our office we notice a strawberry basket which we think is just the thing. It is neat, gives good ventilation from the bottom, holds just a pound and costs only a cent. It is made to fit the chests now in use and is intended to be given away with the fruit. The novelty of the device is in the shape of the stuff. It is cut and scored by a single stroke of a die, and thus every basket is just like every other. The machine cuts 1,000 per hour. The invention is so simple that it seems a wonder that nobody thought of it before. It was entered by Wm. Finch, of Vacaville, well known among fruit men for his zeal in introducing free packages. We believe he has either introduced or invented a free package for every kind of fruit. Messrs. Swan & Co., of the Union Box Factory, have such confidence in this last invention that they have made arrangements which will enable them to make 20,000 baskets per day. There is nothing to compete with them save the basket with the tin rim, and over this they have the advantage of a better appearance, and chance for inspection at the corners and ventilation from the bottom. These are advantages which commission men will appreciate and which will do their part to give the buyer better strawberries and producers better prices.

The Goat Outlook.

The past winter has been remarkably favorable for the Angora goat in California as far as we have heard. In El Dorado county, N. Gilmore reports on hand and in splendid condition 75 full bloods and 1,500 graded. Has raised over 600 kids, with a loss not to exceed 5 per cent. Finished shearing on the 5th of March, with no loss from early shearing.

The greatest fatality attending the growing of goats in this locality, is from the animals eating the nuts of the buckeye. The effect is a low, lingering fever, with constipation and a weakening of the loins. The remedy is as though the animal had been poisoned; a piut of strong brine given at once. The best prevention, is the destruction of any buckeye bush that grows within the goat range. Speaking in general terms, the goat business promises a grand success, with those who can avail themselves of foothill and mountain ranges—the former for winter and the latter for summer pastures.

Mr. Gilmore received the following letter on April 1st: Will ship Mohair tomorrow per Cal. P. R. R. to you in care of Hartley & Co. Our goats are doing splendidly. We have about 90 kids and have lost but three or four in kidding. Sheared last week. Our buck sheared six pounds. Goats are fat and promise to do well. MASON WILSON, JR.

Vacaville, April 1st, 1873.

Trout Feeding.

An "Inquirer" says, his trout, now one and two years old, are perfectly ravenous for food, and he wants to know how much food they should be allowed to consume, and whether they can be overfed. Thaddeus Norris, in *Journal of the Farm* says:

I have advocated aquatic vegetation in trout ponds for the sake of the natural food it will afford. Not that such natural food will furnish any large proportion of sustenance, in artificial culture, but on account of the likelihood of its being a corrective to artificial feed, such as curds, chopped livers, hearts and lungs.

As to quantity, I would consider a quart of finely chopped liver a full meal for a thousand yearlings; twice as much for two year, and thrice as much for three year olds. Chopped to the size of green peas is small enough. To be fed morning and evening, a mess of liver and a mess of curd alternately.

The lungs of animals, or "lights," as they are called, are spongy, and the particles float on top when thrown in. The trout, therefore, must necessarily rise to the surface to seize it, and in doing so show their beautiful proportions and colors. They soon become accustomed to the sight of the person who feeds them and will look for him at stated times, and follow him as he walks around the margin of the pond.

If fed from a platform or scantling extending across, after the surface of the pond is ruffled by their leaping, they will come to one's feet and feed from a spoon or even from one's fingers. Trout have been trained in this way to jump above the surface for a piece of meat held between the fingers until they would seize it two or three feet above the water. As to fish assembling to be fed at the sound of a bell, many persons contend that it is a mere "fish story," and that the appearance of the feeder with his pan of provision, and the shaking of a bell without the clapper or the shaking of his fist will collect them as well.

San Francisco Directory for 1873.

Langley's San Francisco Directory for 1873 was issued some ten days since, and presents a formidable volume of 884 pages, besides some 200 pages of advertisements. The regular annual increase in the volume of this valuable compilation, affords an excellent index of the rapid growth of San Francisco. Every succeeding volume also brings fresh and interesting facts for the study and consideration of our people. The compiler, in the present issue, opens his prefatory remarks with the following encouraging statement:

At no previous period of the city's history could there have been presented a more favorable record of a twelve-months' progress than the one contained in the present volume. In almost every department will be found abundant indications of a growing and healthy improvement, and when the facts and figures contained therein are carefully considered, no better evidences need be required to substantiate the present prosperous condition of this city, or to predict for its future, a prominent position among the leading commercial cities of the world.

The General Register contains 69,403 names. The number of references contained in the present volume is 100,903. The population of the city is estimated at 188,323, a gain since March, 1872, of 10,047, or over five and one half per cent. The number of buildings erected during the year ending February 28, 1873, is about 600, at an estimated cost of $3,750,000. Total number of buildings in the city is 20,887.

The increase of population, for the year has not, for various well known reasons, been quite up to the previous ratio; yet basing the increase for the next ten years upon the ratio of the year just passed, San Francisco will have a population in 1883 of very nearly 300,000! We can hardly suppose that the suburban drain can bear any greater proportion to our population, at any time during the next ten years, than it has done for the year past, nor that railroad uncertainties or any other ordinary drawback to our natural increase can be in excess of what we have experienced during the past twelve months. Hence we infer that the figures above assumed will be fully realized in 1883.

The volume before us, which is the 14th of the series, contains a vast amount of valuable and interesting statistical information connected with the municipal organization, our public schools, banking institutions, insurance companies, religious and charitable institutions, general industries, etc. The book has evidently been prepared with great care; the arrangement of the matter is well made and all the details evince skill, care and patient industry. The Directory is a credit not only to its compilers, but to the city itself. It is from the press of Valentine & Co.

Ayrshire Cows.

We are inquired of by Rhodes Berden, of Borden Station, Fresno county, in this wise: "Has the Ayrshire cow been introduced into California? If so, can you tell me where I can get one, (on a high grade) and at what price? I mean a cow with a calf or one that will calve this spring. How do you think they would stand the heat of summer in this valley? How much milk ought the average Ayrshire cow under favorable circumstances to give; and how does their milk in quantity and quality compare with the Durham and Devon?"

We have no knowledge of the Ayrshire stock in California. The heat of your valley would be no inconvenience if the cow could obtain the shade of tree or hovel during the greatest heat of the day.

As to the annual returns of Ayrshire cows in dairy produce, Professor Low says: "Healthy cows in good pastures give 800 to 900 gallons of milk in a year." Aiton says: "600 gallons a year may be deemed about an average of this breed." And the author of "British Husbandry" says in reference to this yield: "If equalled, we believe it will not be found excelled by any other breed in the kingdom."

Martin says: "The milk of a good Ayrshire cow will afford 250 pounds of butter, or 500 pounds of cheese annually." Milburn's estimate is, that cows of this breed will give from 600 to 800 gallons of milk in the course of the year, and as much as 260 pounds of butter Haxton cites many statistics, from which it appears that in one dairy of thirty cows the average annual yield of milk was 632 gallons; that 9¼ quarts afforded a pound of butter, amounting to an aggregate of 274 pounds in a year.

He adds: "From these data, it appears that the milk of the Ayrshire breed of cows is not only abundant in quantity, but also rich in those substances which constitute excellence of quality, and when with these qualities is considered the small amount of food consumed, the result is so favorable to this breed that few thoroughly acquainted with the subject will refuse to rank the Ayrshire cow among the most valuable for dairy purposes.

Bay District Horticultural Society.

We are pleased to notice that this new well-established Association of Horticulturists, whose latest proceeding we publish below, are now setting a good example in bringing before their meetings questions for discussion of a practical and useful character. Much good to the public can be effected by this course, as well as by other objects—such as the exhibiting on their tables specimens of fruits, plants and flowers, to be reported upon by various committees.

Regular Monthly Meeting of the Bay District Horticultural Society, Saturday, March 29th,

President Dr. A. Kellogg in the chair. The minutes of the previous meeting were read and approved.

A communication from the Secretary of the Horticultural Hall Association, in regard to an assessment of one dollar per share upon its capital stock, was received and referred to the Board of Trustees.

F. A. Miller moved that the Society establish an Herbarium of Plants indigenous to California, and to include plants of floral or horticultural value, under the supervision of Dr. A. Kellogg—carried.

Mr. Nicholson announced his intention to read an essay on the culture of Camellias at the next regular meeting of the Society.

The mildew on roses, its origin and the remedies for it, was made the special order. As to the cause of mildew, it was generally conceded that the sudden change in the atmosphere has a great deal to do with it. The days being warm and the nights being frequently very cold, creates mildew in the form of fungus. The following remedies were recommended:

By Mr. Ludemann—A mixture of one-third of lime, one-third of tobacco, one-sixth of sulphur and a small portion of potash, dissolved in about twenty-five gallons of water. In effecting the mixture, the barrel should be covered so as to keep in the rising steam. Apply it well diluted by sprinkling it over the infected parts of the plants.

By Mr. Kidwell—One pound of black sulphur, with a small portion of common yellow soap, dissolved in about 16 gallons of water, with which the infected plants should be syringed at evenings. He thought that one application would be sufficient.

By Mr. Reimer—Take ten pounds of tobacco stems, soak in about twenty gallons of water, add one pound of carbolic soap, and syringe with this solution every other day, for about one week to ten days.

Another remedy was cited: One ounce of nitre dissolved in one gallon of water, with which syringe the plants once in ten days. This is supposed to be a cure as well as a preventive.

Dr. Kellogg suggested a remedy worthy of a trial. Take sulphurous acid, dilute with twenty to thirty times its quantity in water, and wash or syringe the infected parts of the plants.

Mr. Ludemann proposed to postpone the Spring Exhibition, on the ground that plants in general were backward this season. A general discussion took place in regard to the proposition, and the motion was lost. Adjourned.

F. A. MILLER, Secretary.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 1st, 1873.

FOR WEEK ENDING MARCH 18th, 1873.*

CAR COUPLING.—George Withington, of Ione City, Cal., and Frank F. Taylor, S. F., Cal.

CANDLESTICK.—Amos E. Rogers, La Grande, Oregon.

REISSUE.

LUBRICATOR.—William T. Garratt, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

MUSICAL.—We have received from the publishers a new school song book, "Cheerful Voices," of 207 pages, 60 of which contain the elements, 125 the merry songs, and about 20 pages of sacred tunes for opening and closing school. This volume has for its author L. O. Emerson, whose previous works are a sufficient guaranty of the excellence of this. For sale by M. Gray, 625 Clay street, S. F.

CALVERT'S CARBOLIC SHEEP WASH.—The demand for this excellent wash for the extermination of vermin and cure of scab in sheep is such, that the proprietor, as per advertisement, has reduced its price to three dollars per gallon.

SOUTH DOWNS.—In another column can be found the advertisement of Jessee D. Carr, of Gabilon, Monterey Co., who offers for sale a few of a choice lot of South Down Bucks and Ewes.

HORTICULTURE.

Visit to the Nurseries and Floral Establishments in or near San Francisco.

The Metropolitan Nursery, owned and carried on by Miller and Sievers, promises to be one of the most complete and most extensive in this State. This firm occupies now four fifty-vara lots, situated on Lombard and Chestnut streets, near Polk. The locality was selected, because it is entirely free from frost during winter. They have now nine green-houses well filled with a choice stock of plants. For the last two years they have been importing seeds and plants from the East, from Enrope, Mexico, Australia, Japan and other localities, for the purpose of raising a very extensive stock of select plants; and in many cases they have already been very successful.

One house is entirely filled with imported ferns, of which they have now about 75 varieties, and which is at preseut the most extensive collection on this Coast. Their specimens of Australian Tree ferns *(Alsophila Australis,)* Staghorn Fern *(Platycerium grande)*, Bird-nest Fern *(Asplenium nidus avis,)* are really grand. Among many other remarkable ferns I noticed Davallia elegans, Dicksonia princeps, Lomaria gibba, Lastrœa glabella, Nepprolepis nndnlata, Pteris serrulata, Cyrotominm falcatum, all in a very healthy and promising condition.

Another grecn-house is entirely filled with our native California ferns, of which they have now twenty varieties under cultivation, many of them very pleasing. These are cultivated mainly for exportation.

The next house is occupied by Begonias of all the leading and new varieties remarkable for their beautiful flowers as well as their handsome and rather peculiar foliage. Over fifty varieties are under cultivation there.

The fourth house is devoted to Marantas and other choice ornamental foliage plants, which attract now so much attention throughout the world. It is really wonderful to notice what the art and science of floriculture has accomplished in bringing out year after year so many new foliage plants of all imaginable colors. The most extensive collections of these are, as I said above, the Marantas, Caladinms, Dieffen bachias, Coleus, Sanchesia, etc.

The fifth house contains Camellias, Azaleas, Orchids, Bouvardias, Chinese Primroses, Amaryllis and other choice flowering and ornamental plants, while all the walks are bordered with Cinerarias in full bloom. This honse furnishes the choice flowers for their Floral Depot, No. 27 Post street. They will make an effort to cultivate Azaleas very extensively, and Mr. Miller is confident that he can introduce many varieties, which, under proper cultivation, will do well in the open air here. Heretofore the impression prevailed that Azaleas could not be cultivated in this location with success in the open air, and some have argued that they could not be cultivated under glass even; but from what I have seeu and heard, I have very little doubt that these difficulties can be overcome. The Orchids I saw there are rarely met with here, and may be considered a new introduction, although I have seen very good speeimens at Woodward's Gardens in bloom. This is another class of plants which deserves extensive cultivation.

The sixth house is used for Roses, Cyelamens, Deutzias, (a very fine flowery shrub for the open air,) a large collection of Cactus, Echevarias, Oranges, Coleus, Clematis and other varieties of flowering plants mostly hardy in this climate.

The seventh house is devoted entirely to hardy plants and natives of California, Double Geraniums of 30 varieties, Zonale Geraniums, over 40 varieties of the choicest colors, Lady Washington Geraniums, Petnnias siugle and double, many varieties, Hyacinths, Verbenas, etc. Among the California plants, I noticed in particular the Delphinium nudicaule, *(Scarlet Larkspur)*. This is decidedly a handsome flowering plant and should be in every collection.

The eighth honse is the propagating house which is well stocked with euttings of all the newest and choicest plants.

The ninth house is principally devoted to the rearing of the trees and shrubs of California, Australia, Mexico, Japan and other countries. This is a very extensivo building 24 feet wide by 80 feet long. One table is almost entirely filled with different varieties of Palms which will be brought into market next spring.

Besides these green-houses they have a nnmber of frames filled with choice seeds and small plants.

In the open air they cultivate very largely the Gladiolns, one of our finest flowering bulbs, Dahlias, Tuberoses, Tulips, Hyacinths, Lilies and other bulbous plants. There are now in the ground over 10,000 bulbs of various descriptions.

From all that I saw at this promising establishment it is evident to me that it means business, and I feel assured that from the perseveranee, taste, and continually progressing knowledge of Mr. Miller that this firm will be successful in all their undertakings in the nursery and floral line.

The Bronze Turkey.

The cut which we here introduce, kindly loaned us by Mr. Geo. B. Bayley of Oakland, represents his monster gobbler, Colossus, from which with 4 hens weighing 22, 21½, 21 and 20½ pounds respectively, he is breeding this season. The weight of this bird is 42 pounds, and is probably not exceeded by any other turkey cock in Americe, though by fattening he could be brought to 46 or 47 pounds easily. Now that the farmers are taking such an interest in fine stock, it would be well for those desiring to purchase to carefully read the following description of the markings and other requirements which all birds bred to the standard should have, and thus guard themselves against imposture from those elaiming to have pure bred fowls, but notoriously selling anything but the pure breds, at low prices. It is always better to buy from known and reliable breeders, as purchasers are beginning to find out. The principal points as settled upon in the standard of excellence for Bronze Turkeys are for the cocks as follows:

Neck, breast and back—black, beautifully shaded with bronze, which glistens like gold in the sunlight; each feather ending in a narrow, glossy, black band extending entirely across the feather and under part of body and thighs. Back, similarly marked to the breast, but colors not so decided or rich. Wingbow, black, with a brilliant greenish, orange or bronze lustre. Wing primaries, black, barred across with white or gray; the more even and regular the better; with a narrow edging of white on the outer web. Wing secondaries, quills black; outside web, gray, narrowly edged with white; inside web dark brown, mossed or shaded with gray; the whole of the flight feathers may be edged with white, but it is rather objectionable. Wing coverts, rich beautiful bronze; the feathers terminating in a wide, black band; the wing, when folded, having a broad, bronze band across it, divided from the flight feathers by a glossy, black, ribbon-like mark, formed by the ends of the coverts. Tail, black; each feather pencilled irregularly with narrow bands of brown, and ending in a broad, grayish bronze band.

We would urge upon those contemplating the breeding of turkeys the importanee of size in the birds bred from. Cost should be no consideration when superior sized birds can be procured. Those which are large and well formed and carrying beautiful and perfect plumage will always transmit in a greater degree their fine points to their progeny, than smaller and weaker birds or very young ones; and will always bring more money in any market.

The largely increasing demand for fine, improved stock of every description is sure to keep up the price of the best breeds of animals and birds for years to eome; so that they who first secure the best to breed from, are certain of large and perfectly satisfactory prices.

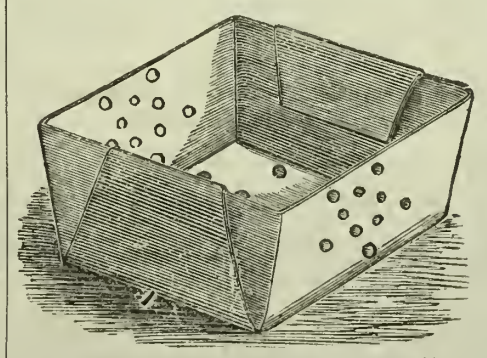


THE BRONZE TURKEY, "COLOSSUS."

Paper Berry Baskets.

Our cut is illustrative of Payne's improved paper basket for berries and grapes. We had heard of the Minnesota paper fruit basket before, but had no clear idea of what it was. In it we find just what we have long needed in California, a basket for berries that we can afford to give away. The inventor of this basket says:

These baskets are the cheapest known in the world, and are equal to the best now made. They cost from one to three cents a dozen according to quality of material used, including labor. A basket with slanting or inclined sides is better than one whose sides are perpendicular, as the sides help support the fruit, and a larger surface on top is exposed to the air. The sides of these baskets can be made perpendicular or any degree of inclination required. Any size basket can be made holding from half a pint to a peck. The material of which these baskets are made, is a light article of stiff paper, known as thin straw board. This material being soft and pliable, the fruit is never jammed or injured in transportation as in every other vessel made of a hard stiff substance.



PAYN 'S PAPER FRUIT BASKET.

No natural juice of the berries, however soft, affect these baskets, the material being porous absorbs any exuding juice, leaving the contents dry and in excellent order. They are perfectly inodorous, and being non conductors, are not affected by extremes of heat, cold and dampness, and will keep the contents cool and dry a much longer period than any other vessel now in use. Each basket is cut from a single rectangular piece of paper creased and perforated at one operation and folded into the form as seen in the cut.

Any boy or girl, man or woman can make these baskets. No paste, stitching or nails is required, being held together by a simple process in manufacturing. They cannot unfold when filled with fruit. One person can cut and fold, ready for use, one thousand baskets in a day. They can be nestled for shipment or storage, or laid in piles after creasing, to be folded at the point where they are to be filled, the folding being done in a twinkling. This paper can be purchased in almost any village, costing from four to seven cents a pound. Damaged or unsalable paper can be ordered from any paper factory at greatly reduced prices. Making the cost of the baskets a mere trifle.

These baskets can be made in such a shape as to fit any berry crate now in use. The division slats for holding upper tiers of fruit must be independent and stiff enough to be self-supporting. In marketing fruit in the surrounding towns we have used these baskets over and over again, for four years, and now are as good as new. For Individual Rights a punch and jack-knife with nimble fingers are all the tools required to manufacture these baskets. The Minnesota State Agricultural Society awarded to us the Society's highest premium on our fruit, berry and grape paper baskets over all others exhibited at its 14th Annual Fair, held at St. Paul, September, 1872. This is the only fair that we have exhibited the baskets.

The inventor, Mr. S. D. Payne, of Kasota, Minn., was the first to introduce and make use of paper in the manufacture of berry and grape baskets. He has evidently done a good work for those engaged in the small fruit business, and has placed his information within the reach of all of them. The printed instructions accompanying each individual right are explicit and full, enabling any fruit grower to be independent and make his own fruit baskets very easily and at trifling cost. By purchasing the right to make your own baskets for your own use you save the profits and transportation. It is just a light pretty business for boys and girls on rainy, winter days and evenings to make a few thousands ready for the fruit season; but not too late to begin now, for they will certainly be wanted this year of great fruit promise.

Samples can be seen at Wiester & Co., 17 New Montgomery Street, S. F., who have for sale the right to Pacific States and Territories.

Winter Scenery in Yosemite.

Here is something good enough to pass for one of our editorials, but we didn't write it:

"At the foot of the great Yosemite Falls there is a mass of snow and ice rising in the shape of an immense cone over 300 feet in hight. It is formed, at first, early in the season by the freezing of the water from the fall.

Then, as the snow storms come on, the vacuum created by the falling water attracts the light flakes of snow, which are whirled about in eddying clonds and settle in an immense mass—sometimes to the depth of four hundred feet.

With the first spring-floods the immense volume of water pouring into the center of this cylindrical mass from a hight above the bottom of the chasm of 1,600 feet, rebounds with such force as to throw columns of spray 600 feet in the air.

Snow piled up to a depth of from three to four hundred feet, and water thrown six hundred feet by a rebound, may appear to be exaggerations, but they are plain, palpable facts to the few who have had the opportunity of witnessing the terrible sublimity of winter and spring scenery in this wonderful region."—*Mariposa Gazette.*

A SLIGHT shower of rain fell here on Wednesday last.



Growing Old

Not like a tiger at a bound, nor yet like a confessed foe met honestly in the open, and conquering by fair means in a fair fight; but like a thief in the night, silently, stealthy, unperceived, creeping on by unmarked degrees, and at each step, carrying a point and gaining an advantage, comes old Age, that dreadful enemy to men, the pitiless harbinger of disease and death. And, however gallant our resistance may be, however resolute our intention of withstanding to the last, and dying victorious over age if conquered by death, we are overcome in the end.

Year by year we lose ground steadily when once the Rubicon is passed and the war between our youth and time has begun; and we never get it back. The first grey hair is the first flag of triumph which the enemy unfurls; the first undeniable wrinkle is the first breach made in the outwork, irreparable and ever widening; and nothing can bring down the first or build up the second again. Crafty appliances may conceal the damage done, but they do not change the fact. Not a fortune spent in the costliest hair dyes ever made by chemists and barber in concert, can restore the lost gold, or turn those silver tresses back to their original blackness. They can make a good pretence, just as lacker can make base metal look like fine gold. But the reality remains the same; and old age is not cheated of the substantiality of his victory because dyes and paints fashion out a youthful vizard. Underneath the fair surface made up of paint and powder lies the reality of seams and puckers, which are the finger marks of time—of crow's feet trodden thick about the eyes, of furrows plowed deep across the brow, and channels cut and scored round about the lips.

As time goes on, the enemy becomes too strong even for the bravest pretences of art and science to mask his works. Dye becomes patent; rouge and *blanc de perle* deceive no one but the wearer thereof; pads and stays, puffings and pinchings, are of no more effect in giving roundess to the "ruckle of bones" to which that ungallant Time has reduced Hebe, or in keeping down the monstrous load of flesh which the former sylph now carries. No artificial support can bring swiftness to the tottering steps or straightness to the falling knees. Year by year the enemy waxes stronger, and the pretence work grows more transparent; till at last the supreme moment comes, when the flag has to be struck, and the surrender formally made—when the former belle, the old-time beau, has perforce to confess to the march of time, and the ravages committed on the way.

Some, however, fight on to the end, and never surrender, even when beaten on all points. They go to the grave, trodden down by Old Age, only dying because the machine is fairly worn out, convinced that their youthful disguise was never seen through, and that the enemy has been held at bay to the last—in appearance. But what miserable creatures those are who go on with their pretence work to the end! Neither young in fact, nor old in dignity, they are nowhere in the ranks of humanity. The youthful laugh at them, and will have none of them; and they will not join the corps of the aged, where they belong. They put themselves to absolute torture to keep up the state they have lost, but they do not keep it up; and the torture goes for nothing, save to the increase of the ridicule they cultivated so diligently. One meets them about the world, and one shudders involuntarily as one watches them. Living lessons are they to the young, who, however, think, in the plentitude of their strength and the pride of their beauty, that they can never come to be as old as these miserable antediluvians!

But it is not in the loss of mere physical beauty that the ravages of time and the approach of age are most felt and bewailed. If eyes lose their brightness they also lose their sharpness, and blink and wink in the twilight, as the grandmother's used to blink and wink so many years ago. They cannot see to read small print as they used, nor to mend pens, nor to thread needles, nor to do fine work of any kind. To be sure it is all the fault of the printers and the needle-makers, and all the rest of them. They are all in a conspiracy not to make things so good and clear as they used to be in the days when the poor blinking orbs were fresh and bright. And voices are changed too. No one speaks as of old.

What has come to the present generation that it mutters and mumbles as it does? Why cannot it speak out as distinctly as we spoke when we were young? And surely hills are steeper and miles longer than formerly. They never seemed to be so difficult: Or have we become strangely delicate in these latter times? We used to be strong and active a few years ago. We cannot understand the change that is creeping over us, and fear that we are settling down into a state of dire disease.

So we are; the most dire disease of all, the most unconquerable; that for which no remedy has been found—the disease of growing old. We are faint often; weary always; our nights are sleepless; our days hang heavily on our withered hands; our food has lost its flavor, and the daintiest dishes that our *cordon bleu* can prepare are tastless, while the rough meats of our youth — oh, how delicious they were! All pleasures pall on us; we have seen everything before, and nothing is as good now as it used to be; our emotion will not come at our bidding, our fancy is dead, and our imagination is laid in the same grave. We do not love as we used; and the present passes by us like a dream.

Explanation of French Gayety.

The poorest class in the United States is well to do compared with the poorest in France, yet it is not as well fed nor as happy. There is a general cheerfulness in this people, which strikes the foreigner as soon as he enters the country. Race and climate have doubtless something to do with it, but hygienic nourishment and a sound stomach much more. In presence of this fact, one cannot help regretting the waste of time and energy of reformers and philanthropists who, to bring about man's amelioration with us, are always addressing themselves to his head, to the neglect of his stomach. It is an elementary law governing the human system, that the brain and the stomach are two neighbors who cannot afford to be at enmity any length of time without mutual deterioration or destruction, and that an improvement in the condition of one implies an improvement in the other. Naturally, this A B C knowledge is familiar to most people, but it does not yet receive the consideration which its importance demands.

The foundation of the Frenchman's happiness is laid in the best bread in the world, both in taste and nutriment, the most nourishing wine and the best cooking—save in roast beef, in the preparation of which, as well as in carving the English enjoy a superiority. Besides the quality of the Frenchman's food, there is a healthful feature in the usually well ventilated apartments in which it is eaten, and another in the jocularity and leisure attending the repast. Sloppy coffee and hot biscuit are not conducive to gayety; ice-cold water and thin soup peppered to the burning point are not joke-inspiring; and a pot-pourri of water-reeking vegetables is not productive of a humor to set the table in a roar. These, in a word—to say nothing of those enemies of the American table, heat and haste—are joy-killers with sequent dyspepsia.—*Galaxy.*

A Daring Man.—Terrible Adventure of Miss Anna Dickinson.

Miss Anna Dickinson has had many curious adventures in keeping her lecture appointments, but none more funnier than that which occurred in New Jersey a few nights since, as told by the Jersey City *Journal* She was engaged to lecture at the Opera House in Newark, and was a passenger on the evening train of which Mr. Crane was the "gentlemanly conductor." She intended to alight at the Market-street depot, but, for some unexplained reason, she was taken to South Broad street, some distance beyond. "When Mr. Crane's train stopped at this station," says the *Journal*, "he found that the only way he could get Miss Dickinson over the swamp which lies between the tracks and the street on which was a horse car, was to take her on his back and wade through the mud and quagmire, in some places knee deep, to dry land. Miss D. saw there was no help for it, and, covering her face with her veil to hide her blushes, put her arms around Mr. C.'s neck, which, doubtless, for him, was not an altogether unpleasant operation, and left the rest to fate.

"When half-way through the swamp of dangers, the conductor called lustily to the driver of the horse-car, which was about to start, to 'hold on;' but the Jehu was hard of hearing, and so the louder the conductor yelled the more energetically the driver whipped into a run his 'jaded steeds.' But we cannot continue this painful scene. Suffice it to say that the conductor yelled 'bloody murder;' that some passengers on the car heard the cry, and Miss Dickinson and her poor, jaded steed were lifted up to dry land and happiness." "Anna," concludes the *Journal*, "never looked prettier, smiled sweeter, or delivered her thoughts in a more musical tone than she did last Wednesday night—and it was noticed all through the lecture that her eyes fairly laughed at the recollection of the funny manner in which she was landed in Newark."

Mark Twain and the Cats.

So much, already, has been written and told concerning the life and history of this genius that we propose here merely to record an extract from one of his bright and sparkling speeches recently delivered before a social meeting of literary men:—

"When I was fourteen I was living with my parents, who were very poor, and correspondingly honest. We had a youth living with us by the name of Jim Wolfe. He was an excellent fellow, seventeen years old, and very diffident. He and I slept together—virtuously—and one very bitter winter's night a cousin Mary—she's married now and gone—gave what they called a candy-pulling, in those days, in the West, and they took the saucers of hot candy outside of the house into the snow, under a sort of old bower that came out from the eaves—it was a sort of an ell then, all covered with vines—to cool this hot candy in the snow, and they were all sitting around there, and in the meantime we were gone to bed, we were not invited to attend this party, we were too young. The young ladies and gentlemen were assembled there, and Jim and I were in bed. There was about four inches of snow on the roof of this ell, and our window looked out on to it, and it was frozen hard. A couple of tom cats—it is possible one might have been of the opposite sex—were assembled on the chimney, in the middle of this ell, and they were growling at a fearful rate, and switching their tails about and going on, and we couldn't sleep at all. Finally Jim said, 'For two cents I'd go out and snake them cats off that chimney;' so I said, 'Of course you would;' he said, 'well, I would; I have a mighty good notion to do it;' says I, 'Of course you have; certainly you have, you have a great notion to do it.' I hoped he might try it, but I was afraid he wouldn't. Finally I did get his ambition up, and he raised the window and climbed out on that icy roof, with nothing on but his socks and a very short shirt.

He went climbing along on all fours on the roof towards this chimney where the cats were. In the meantime these young ladies and gentlemen were enjoying themselves down under the eaves, and when Jim got almost to that chimney, he made a pass at the cats, and his heels flew up and he shot down and crashed through those vines, and lit in the midst of the ladies and gentlemen, and sat down in those hot saucers of candy.

There was a general stampede, of course, and he came up stairs dropping pieces of chinaware and candy all the way up, and when he got up there—now anybody in the world would have gone into profanity or something calculated to relieve the mind, but he didn't; he scraped the candy off his legs, nursed his blisters a little, and said, 'I could have ketched them cats if I had had on a good ready.'"

Tell How You Gained It.

Our lives are filled with all kinds of drawbacks and failures, but who cares to listen to the doleful tales that are past cure? Youth is full of bright hopes, and shakes its finger at mountains that need climbing, and rivers that must be crossed. Do not cry "Shipwreck!" far better to show them the slender board that brought some soul safe to the shore.

Are you a business man — have you worked early and late to find that you have reached the goal of your ambitious plans, only to say to the young around you: "Look at yonder drunkard and spendthrift?" We turn from a picture that gives us scenes of misfortune only; we care not to impress our hearts with woe-begone objects, but a laugh, a happy face, or a beautiful thought—how long it lingers! and who can tell the influence it has in our long life time? Will you then, a successful man of business, seal up the secret of your successes, and be content to hold the photographs of ill luck and wretchedness of others before the world?

Have you reared a family that are blessed with health, and can you only point to the pale faces across the way, and never tell the world how the roses came to the cheeks of your own household? Are our lives narrowing down so that we must hide our cards of fortune, and play out as though we were on the brink of ruin?

Oh! don't for the sake of the sunshine that comes so lavishly; don't talk of thunderstorms and calamities continually. Life has more days of fortune than otherwise; and, if perchance, you imagine you have missed it ninety-nine times out of a hundred give the hundredth time the praise, and forget the others, and "Tell how you gained it."

A LITTLE paradoxical, perhaps, but it appears that "blunt" people say very "sharp" things.

A SARCASTIC lady says that the only thing which keeps Lent is her best silk umbrella.

THE worst kind of education—to be brought up by a policeman.

Young Folks' Column.

Boy Heroes--No. 1.

We propose to give, under the above head, a few instances of heroism in boys, to show our young friends that acts of heroism are not altogether confined to children of a larger growth. We give this week an instance which occurred in the time of the French Revolution:

At the beginning of the French Revolution there lived in the interior of France a boy named Joseph Barra. He was a youth of warm and generous feelings who loved his mother and his country. He was an ardent Republican, and wishing to serve his country in the struggle for liberty, he entered the army at the age of twelve as a drummer boy. His whole soul entered into the cause; his one desire was that his country might be free. He was willing to make any sacrifice, to endure any hardship. He denied himself every luxury, and sent the whole of his pay as a musician, to his mother.

During the march of his regiment to La Vendee, he found himself cut off from the troops, and surrounded by a party of Royalists. He was placed in the center of a square of soldiers, and twenty glittering bayonets were pointed towards his breast.

"Shout" said the leader, "shout—"Long live Louis XVI! or die!" The boy's resolutions were made. He would not purchase life at the price of dishonor. He raised his hat, gazed wistfully upon the blue sky and green earth, gave a last tear of affection to his poor mother, and waving his hat aloft, exclaimed:

"Viva la Republique!"

The twenty bayonets did their work, and the boy, true to his country and his convictions of duty, found a hero's grave. But his example lived, and his name was sung by the patriot army of France as the watch word of devotion to liberty.

"O Barra, we envy your glory
Still victor, though breathless ye lie."

True to his mother, true to his country, true to his sense of duty—where in the broad annals of heroism do we find anything more noble than this.

Kind Words.

"Buy a box, please, sir?" The speaker was a little match-girl, who on a summer's afternoon, stood at the entrance of one of the large London railway-stations. She was trying to find customers among the gentleman who were hurrying along to catch the trains that would take them from busy, smoky London to their pleasant homes. Most of them never saw the little girl, or if they did, took no notice of her. At length, one gentleman, at the sound of the plaintive voice, "Buy a box, please, sir?" stopped a moment. "No, I don't want any," he said, and was passing on when the hungry look of the poor child arrested him, and he remembered a bag of biscuits which his little daughter had given him that morning for his luncheon, but which he had been too busy to eat. So he took them out of his pocket and gave them to her, saying: "Here, darling, here are some biscuits for you." She took them without one word of thanks, which rather surprised the gentleman, and he turned to go; but, looking back, he saw her standing with the biscuits still in her hand, her eyes full of tears, and he heard her say to herself, "He called me darling, he did!"

Don't you think that my friend went home to his own darlings with a happier heart for the kind word he had spoken to that poor child? Perhaps it was the only one she had heard for many a day.

KEEPING A JOURNAL.—We know many boys who keep a journal or dairy, in which is set down all the leading occurrences of the day, which come under the observation of the writer. The plan is a good one, and profitable in many ways. But a journal, to be worth keeping, should be kept for some special purpose. As an instance of such a one, we give the following from the *Little Corporal*:

A boy had a quick, passionate temper, which he earnestly wished to control. By the advice of a wise father he bought a small memorandum book, and resolved that every time he gave way to anger, he should honestly set down the fact in as few words as possible. The first page ran something in this way:—

"Got mad at Bob and called him a plaguey old skin-flint, because he wouldn't lend me his new jack-knife."

"Got mad at mother because she wouldn't let me go skating; slammed the kitchen door awful, and kicked Ponto."

But after a while these dreadful confessions began to grow less frequent, and at last the very presence of the little monitor in the pocket of his jacket seemed to hold some magical power over the evil spirits, and keep them in check.

That was a dairy with a purpose, and we recommend the plan to any one who wishes to fight some special fault.

COOL proceedings—the present expeditions to the north pole.

WHEN is a black dog not a black dog? When he is a grey-hound.

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

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Agricultural Implements,

And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel**. Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

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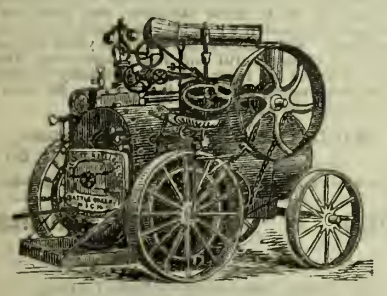
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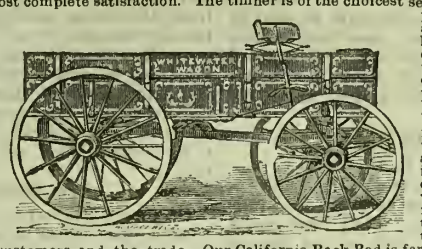
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THE WHITEWATER WAGON.

PRICES.—**Thimble Skein**, 3 inch, $100; 3⅛ inch, $105; 3⅛ inch, $110; 3¼ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50**, complete, according to style. **Iron Axle, $130 to $185**, according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth**, and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be



popular in California, must ho a **good one**, and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars**, and the seats **hardwood Standards**; the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California**, being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory**, and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, **at a low price**, give the "Whitewater" a trial. **TREADWELL & CO., San Francisco**, General Agents for the Pacific States. 14v5tf

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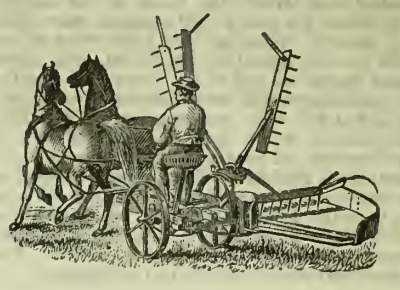
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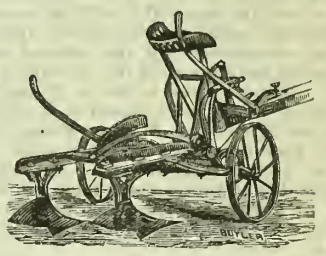
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This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

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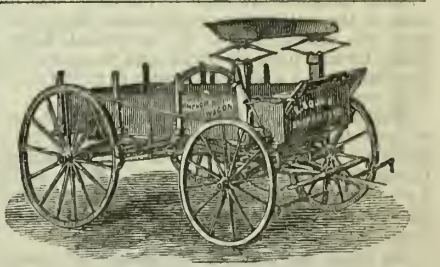


GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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Simple, Durable and Practical.



Will cut wet grass as well as dry. It is impossible for it to clog, as its gears are perfectly covered after the most improved American method.

Draught light; runs entirely on wheels; very simple in its adjustment. It is a Self-Sharpener; all parts of the machine made to interchange. The gears are all enclosed, and it is quickly thrown in or out of gear. THE VICTOR is the only perfect Lawn Mower in the country; it is also a perfect Garden Roller.

Price, $25. Sold only by

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[Continued from Page 213.]

ment of improving the common stock is about to be inaugurated on an extensive scale, is possessed of a climate similar in every respect to that of Asia Minor—the home of the Angora. The island has now 20,000 common goats grazing upon it. Selecting only 5,000 ewes wherewith to enter upon the experiment, it is calculated that at the end of ten years the number of graded ewes will have increased to 75,000, valued at $10 each, or an aggregate of $750,000. The amount to be derived from the sale of wothers and old ewes during that decade is estimated at $643,040. The quantity of wool or mohair to be sheared during that time will sum up to nearly 1,000,000 pounds, valued at about $900,000, being nearly an aggregate revenue, including the value of stock, of $2,300,000. The experiment will be watched with interest.

TUOLUMNE.

Union Democrat, March 29: Our farmers are looking with anxious eyes for clouds and showers, the want of which is beginning to be felt. March has been unusually pleasant and dry, with but one shower during the month. Agricultural pursuits need rain at the present time to insure fair yield

Independent: A Curious Freak.—At Haywood's place, near Columbia, is a seedling peach tree in full blossom, although the ground is now covered with snow one foot in depth, and has been so continuously all winter—most of the time several feet. The sun strikes the top of the tree, but a neighboring bluff keeps the trunk and its surroundings in shadow, until later in the season.

TULARE.

Times, March 29: Tipton.—We visited this place a few days ago. It is still the scene of considerable activity. We learned that the work of construction on the railroad southward would be resumed on the fifteenth of next month. There is some bullion at Tipton from the Owens river mines, awaiting transportation to San Francisco. Not a great deal of this bullion goes this route yet, but when Kern river is reached it is hoped by the railroad company that all this carrying trade will be diverted to this line. The larger portion of it now goes to San Francisco by way of Los Angeles.

The plains around Tipton are beautiful—one vast expanse of natural meadows, covered with a luxuriant growth of grass, clover, alfilarea and numberless varieties of wild flowers. There are yet quite a number of antelope in this vicinity. Mr. Rice has two young ones that were caught near by. There do not appear to be a great many cattle or sheep in the lower Tule river region at present, judging from the small number that we saw.

Weather.—The weather is still clear, but somewhat colder than last week. Rain is needed. Grass is beginning to dry up, and will be rather short, unless we have a shower within a week or so.

TRINITY.

Journal, March 29: More Rain.—Much rain maketh the miners' heart glad, but the four-hundredths of an inch which has fallen during the past week, don't seem to make them very jubilant. Little things, we know, should not be despised, but when the wind blows and dark clouds hang overhead for three or four days, and then it only rains the twenty-fifth part of one solitary inch, it is almost sufficient provocation to make a minister indulge in profanity.

OREGON.

Oregonian, March 22: Coyotes muttonized sixteen innocent lambs for Hon. G. W. Riddle, of Douglass county, last week.

The San Francisco *Spirit of the Times* slanders Oregon in saying her State Fairs amount simply to a hoax and fraud.

Since the game law came in force the deer in some of the settlements contiguous to the mountains are making havoc in the wheat fields. Many farmers have already begun to store their vengeance, and when July comes they will store their venison.

William Wigle, of Willow creek, Wasco county, reports grass prospects fine up that way; cattle are rolling in fatness, and sickness among the inhabitants almost unknown. Beef cattle 5 cents per pound, on foot, and plenty of them for sale. Buyers are quite numerous and money easy.

On a test made by W. O. Gibson, in Washington county, with two varieties of wheat, the common white, and the "Umpqua white," it is found that the latter exceeds the former in growth at this time several inches and is also of a better color. A field of twenty-eight acres was divided in halves and sown half of each. Mr. Gibson expects to get five bushels more per acre from the fourteen acres sown with the "Umpqua" than the other, and present appearances justify the expectation.

At a late meeting of the Salem Farmers' Club Mr. T. L. Davidson made some suggestions which display a good deal of practical wisdom. Mr. D. thought the Club might gradually work up to a point where its members might be greatly benefitted by selling their grain, stock and wool in large quantities. Speculators, as a rule, will pay more for large quantities than for small. Many farmers have but a small amount to sell at a time, and by bringing these together the buyer will have less trouble and the seller too.

If a butcher wanted a hundred head of fat sheep, and the Club could concentrate them at a certain point, a sale could be made; whereas, if the butcher had to pick up ten or a dozen here and there, there would be a less price paid and perhaps none sold at all. The same in regard to wool, as all grades of wool sell for about the same in Oregon. In regard to wheat, if the Club concentrated their amounts in warehouses on the railroad or river, it would be under their own control, and could be sold by sample. This would bring about a reform in cleaning grain at home, and the wild oats and cracked grains would help to feed the farmer's stock, which heretofore has helped to fill the miller's purse.

WASHINGTON.

Union, March 19: Big Lake.—Mr. P. Comasky, who is just down from Big Lake, in Stevens county, says that stock of all kinds have done well up there. They have had a little more snow, and it laid on the ground a little longer than it did here, but all things considered it has been a favorable Winter. There is no snow there now and grass is getting excellent.

Good Grass.—During the last few days the hills and prairies have changed from their gray and brown color to a beautiful green, and grass is growing rapidly. Men who have the care of stock declare they have never seen the grass better, at this season, for many years. All kinds of stock look well and are thriving.

Fruit Prospects.—The prospect for an abundant fruit crop still remains good. It now seems that but very little damage was done last Winter by the heavy freezes, and that all the trees that did escape are going to be loaded down with fruit. We see peach trees that are only two years old from the seed that are covered with bloom buds. We think peaches will be especially plentiful.

Farming.—At present the farmers are making good use of the favorable weather, and are plowing and putting in grain in every direction. A few more days of such weather as we have been having, would enable farmers to get all small grain planted, which would insure us a good crop. As a general rule, the earlier the better, applies in sowing grain in this country.

PUGET SOUND.

Express, March 20: The last week has been all sunshine and warm; more like May than March. For the benefit of "outside barbarians" we will state that in one garden in this city we noticed last Thursday, the 13th inst., a cherry tree in bloom. Who, or what place, in the same latitude, can come up to this?—for it cannot be beat. If any one, sharpen a pencil and let us know. In the Eastern States they are picking icicles from their noses about this time, while we are sunning ourselves on the door-steps and cellar-doors.

Ventura County.

We continue our description of middle and southern California for the convenience of Eastern correspondents and readers who contemplate emigration to more genial climes. We last week made favorable mention of Los Angeles county, and now of Ventura county, which we take from a recent number of the

Ventura Signal.

Ventura county lies between the 33d and 34th degrees of north latitude, and 119 and 120 degrees longitude west from Washington. It is bounded on the west by Santa Barbara county; north, by Kern; east, by Los Angeles and south by the Pacific ocean. It is 260 miles on an air line from San Francisco and 300 by ocean; it is south of San Francisco 200 miles and 150 miles east.

From the Mexican border the distance is 135 miles by sea and 205 by land, and west of the city of Los Angeles 70 miles. It has a daily line of stages to and from San Francisco and Los Angeles, and regular communication by steamer and other ocean vessels. The superficial area is over 2,000 square miles, including the islands of Anacapa and San Nicholas.

The Topography.

In this respect the new county presents nothing peculiar. With an unusual percentage of valley land (about 25 per cent.) it is hilly and mountainous, the latter being low, however, and rarely attaining an elevation above sea level over 1,000 feet, while the hills near the coast are but a few hundred.

The Soil

in the valleys is a deep, sandy loam along the coast and extending in some cases far inland, but generally at a distance beyond the sea shore it is a clayey loam.

Its Productiveness.

There is probably no soil that produces better or with less cultivation than that of the lower coast counties, the variety covering a wider range than can be found in any other section of the Union. Along the sea coast in the black sandy soil, corn is grown to perfection; also barley, beans, potatoes and every variety of garden vegetables. Further back, wheat, oats, rye, buckwheat do well while the grape attains a perfection equal to any part of the world.

The Natural Pastures

Of this region are without a parallel. From January to July, hills and valleys are matted with a great variety of wild clover and alfileria. In July when this luxuriant growth has matured on the hills and drier parts of the valleys, the feed still continues as good or better than when green. Up to the rainy season in November or December, cattle, sheep, horses and other stock keep fat. It has always been the paradise of the stock-raiser and will be.

The advantages of these early pastures are just beginning to be understood. The stockman can send fat animals to the San Francisco market from one to two months earlier than from the more northern part of the State, thereby realizing from 25 to 100 per cent. better prices than at any other season; and the same may be said of the dairyman and gardener. But aside from all these things, there is one pursuit as yet hardly entered upon that will make this country rich and famous; we refer to its unparallelled adaptability to the production of

Semi-Tropical Fruits.

Of the 2,000 square miles in Ventura county, 1,000 square miles would raise to perfection one or all of the following named fruits: olives, English walnuts, almonds, oranges, lemons, limes, citrons, figs, pomegranites, grapes, tunas, guavas, and many others of the more tropical kind. Already these are grown to some extent, and as valuable as the land is for other products, these are found to be immeasurably more profitable. Apples, peaches, pears, and all the more northern fruits do well also, but are not equally profitable.

Mineral Resources.

Ventura is not a mining county, though silver, gold, cinnabar and some of the other ores and metals are to be found. But the most extensive deposits of asphaltum and petroleum west of the Rocky Mountains are found here, and are seemingly inexhaustible. Besides these are limestones (primary and secondary), alabaster, salt and many of lesser importance. Hot and mineral springs are also numerous.

The Climate.

It is universally conceded that this climate is without an equal. It is certainly unpleasantly windy for a few days in the year, but that being admitted nothing more can be said against it. It is never hot, never cold; never snows, and rarely frost enough along the sea shore to hurt the most tender bud or flower; there is little mud, no thunder, no lightning, no earthquakes, no miasma, no rats or bed-bugs, and but few fleas. There is plenty of bear, deer, mountain sheep, geese, ducks, snipe quail, hares, rabbits, clams, fresh and salt water fish.

The Water Supply.

No region of country south of Point Conception is as well watered as Ventura county. The Santa Clara is a clear, beautiful stream, emptying its waters into the Pacific ocean about midway between the eastern and western extremity of the county. Its course is northeasterly and southwesterly, and forms within the county, a valley from two to twenty miles in width, as beautiful as is to be found on the coast. It is fed by the beautiful, never-failing rivulets Piru, Sespe, Santa Paula, and many other streams of lesser size.

The San Buenaventura river is another fine mountain stream running directly across the county from north to south, and discharging its sparkling, healthful waters into the ocean at the town of Ventura. Besides these are the Rincon, Sonces, Los Alisos, and many other creeks and unfailing water fountains.

There is now completed over 40 miles of large irrigating canals, and the work rapidly progressing. South of the Santa Clara river, on the open plain, some 20 artesian wells are flowing. They are from 60 to 190 feet deep, and afford many million gallons of good, fresh water daily through all seasons of the year.

Price of Lands.

Much has been said of the high price of lands. This is in fact untrue, and unjust to the country and the emigrant. Lands, like all other merchantable commodities, are worth just what can be made out of them. In some of the Atlantic States, where they are valued at $30 an acre, a hard working, economical man might toil a life time in the hot sun, frost, snow and mud, and yet be unable to clear enough to pay for them.

Here the same money will buy land that can be made to pay for itself in one or two years. The silly say *that* is cheap and *this* is dear. If any one expects to get good lands here, simply because the country is new, for what he can buy them for in some interior parts of the States, he will be mistaken, and we emphatically advise all such to stay away.

But if they are willing to pay from five to thirty dollars for land where they can make it pay for itself in from one to three years by sober economy and industry, and where at the end of that time it would be worth double, triple or quadruple what it cost, then we say come. Here, too, you can work out of doors every day in the year comfortably.

Ventura county has hundreds of thousands of acres of valuable lands for grain, fruit and stock growing. We say to all who want homes in this beautiful country, come. Now is the time.

A Rare Opportunity to Buy a Home of Beauty.—To a family of refined taste and culture is now offered one of the most beautiful gardens in California, containing a collection of the most rare and beautiful trees, shrubs and plants to be found on the coast. Commanding a view of the Golden Gate, City of San Francisco, Oakland and surrounding country. In the vicinity of Golden Gate College, McClure's Military Academy, and within easy reach of the University. Consisting of five acres; water excellent. Will be sold as a whole or one-half. For particulars, principals will apply at Belle View Nursery, Oakland. S. NOLAN, Proprietor. ap5-1m

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At a meeting of the Dairymen of Vermont, held at St. Johnsbury, Mr. Gleason, well known for the superior quality of his butter, was asked what churn he used. He said he used "The Blanchard Churn." A voice in the crowd cried, "The best churn out," and it was echoed from one side to the other, "That's so," "That's so."

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Wm. Shew's Photograph Gallery, the oldest in the State, and for a long time located on Montgomery street, is now on Kearny, at No. 115, and has no connection with any other. All kinds of Photographs taken in the very best style for about one-half the prices charged on Montgomery street.

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Wheat Market Quotations Compared.

1873 JAN.	S. F. SHIPP'G.	LIVERPOOL. *TELEGRAPH REPORTS.	LIVERPOOL. †MAIL REPORTS	DIFF. BET. Mail and Teleg	DIFF. BET. S. F. and Teleg'h.
21	2 02½	3 06@3 08	3 07@3 27	10	1 14½
24	2 02½	3 04@3 06	3 05@3 25	10	1 12½
28	1 95		3 03@3 25		
31	1 92½	2 98@3 01	3 01@3 23	12½	1 07½
FEB. 4	1 92½	2 98@3 01	3 01@3 28	11	1 07
7	1 91¾	2 96@2 99	2 99@3 20	12	1 06¼
11	1 91¾	2 92@2 97	3 04@3 23	22	1 04¾
14	1 89½	2 93@2 95	3 06@3 31	21½	1 06½
18	1 87½	2 93@2 95	3 01@3 26	19½	1 06½
21	1 81½	2 80@— —	2 99@3 24	22½	1 15
25	1 82½	2 85@2 87	2 97@3 22	23½	1 03½
28	1 75	2 81@2 87	2 97@3 22	25½	1 09

*—The quotations given by telegraph to the Associated Press are mainly those of whet are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indcated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, April 2d, 1873.

The Produce Market has been quiet this week, but few transactions of any magnitude occurring. There has been a slight downward tendency on the whole in the Wheat market, evinced in a reduction of milling to $1.85. During the last month there was

Exported,

In 29 vessels, 841,636 centals, valued at $1,618,534, and there yet remains for export probably over 800,000 centals. There are now nineteen vessels in port, sufficient to carry away about one-half of this balance, so that the export season is rapidly drawing to a close. There need be no fear that there will not be sufficient tonnage for the next year's harvest, however great it may be. The

Dry Weather

We have had for some time past, caused many to fear for the growing crops, but the welcome rain of to-day, slight though it has been, will be sufficient to disipate it. Yet for a few days past, the prospect of continued dry weather caused a fall in the price of grain bags. For several weeks past

Barley

Has assumed an unusual importance owing to the demand for Australian export, and extraordinary large quantities of it, comparatively speaking, have been since arriving. Four ships have been loaded, one of which has been dispatched this week.

California Produce in New York

Has been looking better for a few days past, although that is not saying a great deal. Wool has shown an improved tone, and has been sold at a slight advance, although it remains very low in this market, on account of the general dullness, and also on account of the great quantity of short wool coming in. Hides have advanced in New York, and there is a great demand there for export to Europe. Leather cannot now be exported in consequence of

The High Price of Gold

East, and stocks remain in the hands of tanners, but a shipment has been made to Japan. The dull times and tight money market are referrable to the high price of gold East, to a consequent excessive export, to stock johbing, and excessive importation last year. We have begun to

Export Vegetables

Such as Green Peas, etc., from this city and Sacramento in large quantities to Salt Lake. Hearing as much as we have been in the habit of doing of the high state of cultivation, etc., about the City of the Saints, this is the last thing we should have expected.

Receipts.

Receipts on the whole this week compare favorably with the previous one. Owing to the demand for Flour for export recently, more has come forward last week than for a long time past, the receipts being threefold those of the previous week. Receipts of Wheat have declined, those of Barley have increased 50 per cent., and of Oats 300 per cent., though still insignificant. Potatoes have come forward somewhat more freely from the interior, while receipts of Onions have doubled. Those of Bran, Middlings and Hay have increased, while those of Wine have doubled.

We summarize receipts of Bey Produce to date for the week closed, as 50,201 quarter sacks of Flour; 108,923 cantals of Wheat; 22,488 do of Barley; 622 do of Oats; 237 do of Rye; 33 do of Corn; 2,100 do of Poatoes; 378 do of Onions; 627 do of Beans; 1,100 do of Bran; 513 do of Middlings; 1,590 tons of Hay; 85 do of Straw; 923 Hides; 310 bales of Wool; 25,840 gallons of Winc; 520 do of Brandy, and 125 barrels of Beet Sugar.

Receipts of Wheat at Oakland Wharf have aggregated 12,400 centals, or 62 car loads—a very small quantity.

Receipts of Domestic Produce from Coast Ports have aggregated 4,995 centals of Wheat; 1,167 do of Barley; 938 do of Oats; 4,377 do of Corn; 4,344 do of Potatoes; 67 hales of Wool; 194 Hides; 9 centals of Canary Seed; 516 do of Mustard Seed, and 90 do of Flax Seed.

From Oregon the' "Oriflamme" has bronght us 552 bxes and 91 kegs of Apples, 3,501 quarter, and 732 half-sacks, and 400 gunnies of Flour; 1,504 sacks of Oats; 454 do of Onions; 162 Hides, and 95 cases of Salmon, besides other articles of Domestic Produce.

Barley.

Barley remains almost unchanged from last week, but large quantities are coming forward. Another ship has been loaded for export. The market is weak, receipts from all sources aggregeting 23,668 centals. We note sales of 1,100 sacks of Coast feed at $1.15, 2.000 do of Brew at Bantas for $1.17½, 1,200 do light Bay feed at $1.21, 750 do of Bay and Coast feed at $1.22½, 750 do at $1.25, 1,000 do of Coast Brew at $1.30, 300 do Brew at $1.35 and 1,500 do of Choice Bay Brew at $1.42½.

Flour.

Flour, with large receipts from the interior, remains unchanged. Exports have aggregated 9,174 barrels, 350 half sacks and 18,343 quarter sacks to China, Manilla, Japen and Queenstown. The first large shipment of the season to Europe took place to Queenstown by the "Acapulco," and consisted of 5,637 barrels.

Hay.

A great deal of Hay came in last week, much of it of an inferior quality. Several sales took place at from $15 to $23 per ton.

Hops.

Hops have not improved in tone, and there are no sales to record.

Oats.

Oats are firm at quotations given in the table. We received last week 1,504 sacks of Oregon, almost the only kind now in the market.

Potatoes.

Although receipts of Pototoes have not aggregated much more than one-third of those of last week, the market has become much weaker. We note sales of 200 sacks of Bodega, at 75 cents; 900 do of Petaluma, at from 60 to 75 cents, and 1,450 do of Humboldt, at from 90 cents to $1.05.

Wheat.

Owing to the large arrivals from all quarters, the Wheat market in Liverpool has still further declined, being now as telegraphed to the Associated Press and Merchants' Exchange, $2 73 to $2.79, a fall of five cents from last week's Liverpool quotations. Freights remain nominally at the same figure as last week, but they are weak. Last week's receipts of Wheat amounted to 126,318 centals a considerable falling off from those of previous week. We note sales of 450 sks of ahrunk, at $1.70; 600 do of common and inferior, at $1.75; 5,300 do of good ahipping, at $1.80; 4,000 do of shipping and milling, at $1.82½; and 23,200 do, at $1.85.

Exports have been light, including per "Siberia," to Queenstown, 38,563 cantals; per "Cameo," to Liverpool, 26,501 do; per "Simia," to Queenstown, 35,127 do; per "Annie Frost," to Queenstown, 35,230 do; and per "Laura and Gertrude," to Queenstown, 32,330 do; making a total of 7 cargoes of 175,543 centals, valued at $239,142.

Wool.

The receipts of new season wool is just beginning. That which is now coming in is not in very good condition. There will be a great deal of short, heavy wool this year, which will not command over 15c or 16c per pound. It has lately been lower in New York than it has been for the past three years. Sales of 21,000lbs of Fall clip at private rates have been made during the week.

GENERAL MERCHANDISE.

Our imports last week have been very large, not less than seventeen vessels with cargoes of various kinds of goods having arrived from other than Pacific Coast ports. Of these, 6 have been from New York, with the usual description of cargo; 4 have arrived from Great Britain with cargoes of Chemicals, Iron, Cement, Bricks, Caudles, Oilman's Stores, Beer and Earthenware; one has arrived from Rio Janerio with Iron, Raila, Soaps, Chemicals, Bricks and Wine, the cargo of a condemned French ship; 1 has arrived from Manilla with 29,380 hags of Sugar; and the hallance from various other ports. Our exports have been carried in 14 vesseis, and consist of Wheat and Flour to Great Britain, Barley to Australia and New Zealand, Domestic Products, Groceries, etc, to Mexico, British Columbia, Manilla, China and Japan. There has been little change in the markets.

DOMESTIC PRODUCE.

WEDNESDAY M., April 2, 1873.

BEANS.			
Beans, sm'l white	4¾	@	—
do, butter	4½	@	—
do, large, do	5	@	—
do, hayo	3½	@	—
do, pink	4	@	—
do, pea	5	@	—
BROOM CORN.			
Per ton	$40	@	120
DAIRY PRODUCE.			
Butter, Cal. fresh	25	@	26
do, ordin'y roll	25	@	26
do, choice	27½	@	30
do, new firkin	28	@	30
do, packed	—	@	—
do, New York	—	@	—
Cheese, Cal new	14	@	15
do, Eastern	15	@	19
Eggs, Cal. fresh	—	@	27½
do, Oregon	2.¼	@	—
do, Eastern	—	@	—
FEED.			
Bran per ton	19	@	19—
Middlings	30 00	@	—
Hay	18 00	@	2 50
Straw	9 00	@	10—
Oil cake meal	30 00	@	—
Corn Meal	31 00	@	10—
FLOUR.			
Alviso Mills, bbl.	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Comme'l Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
SantaClara Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venus, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard, Sac'o	4 50	@	5 75
FRESH MEAT.			
Beef, fr quality	—	@	12
do, second do	—	@	7½
do, third do	—	@	4½
Veal	—	@	12½
Mutton	—	@	8
Pork, undressed	—	@	8
do, dressed	12½	@	—
GRAIN, ETC.			
Wheat Cal. coast	65	@	1 80
do, shipping	1 80	@	—
do, milling	1 80	@	1 85
do, Oregon	—	@	1 85
Barley, Dark'O'st	17½	@	22½
do, Light	1 25	@	1 35
do, Brewing	—	@	1 40
Oats, Coast	3 15	@	—
do, Light	2 35	@	—
Corn, White	1 25	@	—
do, Yellow	1 25	@	1 30
Buckwheat	1 75	@	—
Rye	2 25	@	—
HOPS.			
California, 1871, lb	—	@	—
do 1872	50	@	—
Eastern, 1872, lb	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	40	@	—
Honey, choice	10	@	22½
Los Ang. Honey	25	@	30
Onions	—	@	4
Flaxeed	3	@	—
anary do	4	@	5
Mustard do, white	1½	@	2
do, brown	2	@	3
Peas, Chili	25	@	—
Alfalfa	35	@	—
Ky, Blue Grass	50	@	—
Timothy	35	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	4	@	6
Pecan nuts	16	@	18
Hickory do	10	@	—
Brazil do	16	@	—
Coc'anuts, ₱100	9 00	@	—
Almonds hrd shc	10	@	12½
do, soft	20	@	25
POTATOES.			
Sweet, per lb	—	@	—
Humboldt	90	@	1 10
Monterey	75	@	1 00
Tomales	60	@	80
POULTRY & GAME.			
Live Turkeys lb	22	@	24
Hens, per doz	9 00	@	10 00
Roostere	9 00	@	10 00
Chickens	7 00	@	8 00
Ducks, tame, doz	10—	@	14—
Geese, per pair	3 00	@	3 50
Hare, per doz	2 50	@	4 00
Snipe, Eng., doz	2 00	@	2 25
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	11	@	11½
Eastern do	10½	@	11
do sugared	13	@	—
Cal. Hams	12½	@	13
Eastern do	15½	@	16
Cal. Smoked Beef	12	@	—
WOOL, ETC.			
Choice Nor'n, fall	15	@	16
do spring	18	@	20
Seedy fall	12½	@	—
Burry	10	@	11
Hides, dry	19	@	19½
do wet salted	9	@	—
Tallow	7	@	7 50

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	16	@	—
Flour Sacks ½s	16¼	@	—
" ¼s	8½	@	9¼
Stand. Gunnies	17	@	17½
" Wool Sacks	—	@	70
" Berley do	16	@	—
Hessian 40-in. gds	—	@	12
do 60	17	@	17½
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	3 00	@	3 25
do Table do	4 00	@	—
Jems & Jellies	4 —	@	4 25
Pickles ½ gl	3 25	@	3 75
COAL—Jobbing.			
Australian	14 50	@	—
Coose & Bel. Bay	9 00	@	11 00
Seattle	11 00	@	—
Cumberl'd, cks	26 00	@	—
do bulk	22 50	@	—
Chile	—	@	—
Lehigh	22 00	@	—
Liverpool	22 00	@	—
West Hertley	17 00	@	—
Scotch	17 00	@	—
Screnton	17 00	@	—
Vancouver's Isl	12 50	@	—
Charcoal, ₱ bk	1 00	@	—
COFFEE.			
Coeta Rica per lb	18½	@	—
Guatemala	17½	@	—
Java	22	@	23
Manilla	17½	@	—
Ground in cs	27½	@	—
Chicory	8	@	—
FISH.			
Pac. Dry Cod, new bundles, ₱ lb	—	@	8½
Eastern Cod	8¾	@	9
Salmon in hhls	7 50	@	8 00
do ½ hbls	4 50	@	5 00
do 2½ lb cans	—	@	—
do 2lb cans	—	@	—
do 1lb cans	—	@	—
Pick. Cod, bbls	—	@	—
do ½ bbls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, hx	—	@	50
Mack'l, No. 1, ½bls	8 50	@	11 00
" Extra	—	@	14 00
" in kits	2 25	@	3 00
" mess	—	@	4 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size	5¾	@	9 —
OILS.			
Pacific Glue Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No 1	1 35	@	1 40
do do No. 2	1 25	@	1 30
Cocoa Nut	10	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	40	@	45
Polar, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Oleophine	40	@	—
Devoe's Bril't	44	@	46
Long Island	42	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	42	@	—
PAINTS.			
Stand. Wh. Lead	—	@	12½
Whitening	—	@	2½
Chalk	—	@	2½
Paris White	—	@	3
Ochre	—	@	3½
Venetien Red	—	@	3
Red Leed	—	@	11½
Litharge	—	@	11
RICE.			
China No. 1, ₱ lb	6½	@	6¾
do 2, do.	6	@	6¼
Japan	6¼	@	—
Petna	6½	@	7
Hawaiian	—	@	9
SALT.			
Cal. Bev, per ton	5 00	@	15—
Cermen Island	14 00	@	30—
Liverpool fine	24	@	—
do coerse	19 00	@	20—
SOAP.			
Castile, ₱ lb	12	@	12½
Local brands	5½	@	7
SPICES.			
Allspice, per lb	—	@	18
Cloves	27½	@	—
Cassia	30	@	—
Nutmeg	1 00	@	—
Whole Pepper	22	@	—
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	25	@	30
do Mace	1 50	@	1 75
do Coffee	25	@	—
SUGAR, ETC.			
Cal. Cube per lb	12¾	@	—
Circle A crushed	12¾	@	—
do granulated	11¾	@	12
Golden C	10	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls	52½	@	—
do in ½ hls	55	@	—
do in kegs	60	@	—
TEA.			
Oolong, Canton	19	@	25
do Amoy	23	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpowder, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered hxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb hxs	45	@	90
do pl'n hx, 4½ lb	35	@	65
do ¼ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Coun. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut chewing, buc'ts, ₱ lb	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

FRUIT MARKET.

Fresh Fruit of all kinds is very scarce this week in the wholesale market. The supplies from San Diego and Tahiti are overdue, but are expected to-day.

FRUIT MARKET.			
Tahati, Or. ₱ 1000	—	@	—
Cal. do	40	— @	50 —
Limes, ₱ M	5	— @	8 —
Cal. Lemons, 1000	40	— @	40 —
Bananas, ₱ bunch	3	— @	5 —
Pineapples, ₱ doz	—	@	8 —
Apples, eat'g, bx	1 50	@	2 50
" Cooking	1 25	@	1 75
Pears, Eating	2 50	@	—
" Cooking	—	@	1 50
Pomegran's, ₱ 100	—	@	—
Grapes, Mission	—	@	—
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	7	@	8
Pears, ₱ lb	6	@	8
Peaches, ₱ lb	10	@	12½
Apricots, ₱ lb	—	@	—
Plums, ₱ lb	6	@	8
Pitted, do ₱ lb	18	@	20
Raisins, ₱ box	3	@	10
Black Figs, ₱ lb	5	@	8
White, do	10	@	15
VEGETABLES.			
Cabbage, ₱ dz	50	@	1 00
Garlic, ₱ lb	3	@	4
Green Peas	3½	@	4
Green Corn ₱ doz	—	@	—
Marrowfat Squash per ton	5 00	@	6 00
Artichokes, ₱ lb	2	@	3
Tomatoes, L. A.	—	@	15
String Beans, ₱ lb	—	@	—
Lima Beans	8	@	7
Peppers dry	20	@	25
Okra	30	@	33

LUMBER MARKET.

CARGO PRICES OF REDWOOD.			
Rough, ₱ M	$20	00	
Rough refuse, ₱ M	16	00	
Rough clear, ₱ M	32	50	
Rough clear refuse, M	22	50	
Rustic, ₱ M	35	00	
Rustic, refuse, ₱ M	24	00	
Surfaced, ₱ M	32	50	
Surfaced refuse, ₱ M	22	50	
Flooring, ₱ M	30	00	
Flooring refuse, ₱ M	20	00	
Beaded flooring, ₱ M	32	50	
Beaded floor, refuse, M	22	50	
Half-inch Siding M	22	50	
Half-inch siding, ref. M	16	00	
Half-inch, Surfaced, M	25	00	
Half-inch Surf. ref., M	18	00	
Half inch Battens, M	22	50	
Pickets, rough, ₱ M	14	00	
Pickets, rough, p'nted	16	00	
Pickets, fancy, p'nted	22	50	
Shingles, ₱ M	3	00	
PUGET SOUND PINE —Retail Price.			
Rough, ₱ M	$25	00	
Flooring and Step, ₱ M	37	50	
Flooring, narrow, ₱ M	40	00	
Flooring, 2d quality, M	30	00	
Laths, ₱ M	4	00	
Furring, ₱ lineal ft		1c	
Rough, ₱ M	$25	00	
Rough refuse, ₱ M	20	00	
REDWOOD—Retail.			
Rough Pickets, ₱ M	18	00	
Rough Pickets, p'd M	20	00	
Fancy Pickets, ₱ M	30	00	
Siding, ₱ M	27	50	
Tongued and Grooved, surfaced, ₱ M	40	00	
Do do refuse, ₱ M	27	50	
Half-inch surfaced, M	40	00	
Rustic, ₱ M	42	50	
Battens, ₱ lineal foot		1	
Shingles ₱ M	3	50	

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, April 2, 1873.

The price of sole leather continues the same. French Calf Skins still have an upward tendency, with prospects of a further advance. Owing to the low price of currency East, tanners cannot ship. Leather is therefore low; but there have been some heavy shipments made to Japan, which in a measure help to compensate this.

City Tanned Leather, ₱ lb			26@29
Santa Cruz Leather, ₱ lb			26@29
Country Leather, ₱ lb			25@28
Stockton Leather, ₱ lb			24@29
Jodot, 8 Kil., per doz	$50	@	54 00
Jodot, 11 to 19 Kil., per doz	66	00@	85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55	00@	70 00
Lemoine, 16 to 18 Kil., ₱ doz	75	00@	77 50
Levin, 12 and 13 Kil., per doz	63	00@	70 00
Cornellian, 12 to 16 Ko	57	00@	67 00
Cornellian Females, 12 to 13	60	00@	64 00
Cornellian Females, 14 to 16 Kil	66	00@	72 00
Cgeran Calf, ₱ doz	54	00@	
Simon, 18 Kil., ₱ doz	60	00@	62 00
Simon, 20 Kil. ₱ doz	65	00@	67 00
Simon, 24 Kil. ₱ doz	72	00@	74 00
Robert Calf, 7 and 9 Kil	35	00@	40 00
French Kips, ₱ lb	1	00@	1 30
California Kip, ₱ doz	50	00 to	80 00
French Sheep, all colors, ₱ doz	8	00@	15 00
Eastern Calf for Backs, ₱ lb	1	10@	1 25
Sheep Roane for Topping, all colors, ₱ doz	9	00@	13 00
Sheep Roans for Linings, ₱ doz	5	50@	10 50
California Russett Sheep Linings	1	75@	5 50
Best Jodot Calf Boot Legs, ₱ pair	5	25	
Good French Calf Boot Legs, ₱ pair	4	50@	5 00
French Calf Boot Legs, ₱ pair	4	00	
Harness Leather, ₱ lb		30@	37½
Fair Bridle Leather, ₱ doz	48	00@	72 00
Skirting Leather, ₱ lb		34@	37½
Welt Leather, ₱ doz	30	00@	50 00
Buff Leather, ₱ foot		21@	25
Wax Sids Leather, ₱ foot		20@	
Eastern Wax Leather		26	

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule, from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, April 2, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton	$60	00 @	— —
White Pig, ₱ ton	60	00 @	— —
Refined Bar, bed assortment, ₱ lb	—	— @	— 06
Refined Bar, good assortment, ₱ lb	—	— @	— 08½
Boiler, No. 1 to 4	—	05½ @	— 06
Plete, No. 5 to 9	—	06½ @	— 07
Sheet, No. 10 to 13	—	07½ @	— —
Sheet, No. 14 to 20	—	08 @	— 08½
Sheet, No. 24 to 27	—	08 @	— 09
Horse Shoes, per keg	9	00 @	
Nail Rod		10½ @	
Norway Iron		9	
Rolled Iron		6½	
Other Irons for Blacksmiths, Miners, etc.		6½ @	9¼
COPPER.—			
Breziers	—	35 @	— 38
Copper Tin'd	—	50 @	— —
O. Nie's Pat	—	55 @	— —
Sheathing, ₱ lb	—	— @	— 29
Sheathing, Yellow	—	28 @	— 29
Sheathing, Old Yellow	—	— @	— 12½
Composition Nails	—	29	— 30
Composition Bolts	—	29	— 30
TIN PLATES.—			
Plates, Charcoal, 1X ₱ box	14	50 @	15 —
Plates, 1 C Charcoal	13	50	14 —
Roefing Plates	13	00	13 50
Banca Tin, Slabs, ₱ lb	—	40	— 42½
STEEL.—English Cast, ₱ lb	—	20	— 25
Drill		20	— —
Flat Bar		22	— —
Plough Points		16	— 17
Russia (for mould boards)		17	— 18
ZINC		9¼	— 10
Zinc, Sheet	—	9	— 10
NAILS—Assorted sizes	—	5½ @	— 9

San Francisco Retail Market Rates.

WEDNESDAY NOON, April 2, 1873

FRUITS, VEGETABLES, ETC.

All Oregon eggs es in the market, but very few even of them. By the hox they are from $2 to $2.50. Strawberries do now come in plentifully. Mushrooms are out of the market. Cucumbers are out of the market to-dey, but there will be some in to-morrow. Cabbages are in good supply.

Apples, pr lb	8	@	12½	Carrots, ₱ doz	—	@	25
Pears, per lb	5	@	12½	Celery, ₱ doz	1 00	@	—
Apricots, lb	50	@	87½	Cucumbers, ea	25	@	—
Pine Apples, each	50	@	1 00	Tomatoes, ₱ lb	25	@	—
Bananas, ₱ doz	50	@	1 00	Green Peas	—	@	—
Canteleups	—	@	—	String Beans	20	@	—
Watermelons	—	@	—	Crass, ₱ doz bnn	—	@	25
Italian Chestnts	—	@	—	Dried Herbs, lb	25	@	—
Cal. Walnuts, lb	20	@	—	Garlic	8	@	—
Cranberries, ₱ g	—	@	1 00	Green Corn, doz	—	@	—
Strawberries, lb	50	@	—	Lettuce, ₱ doz	25	@	35
Raspberries, lb	—	@	—	Mushrooms, ₱ lb	—	@	—
Gooseberries	—	@	—	Horseradish, ₱ lb	—	@	25
Cherries, ₱ lb	—	@	—	Okra, dried, ₱ lb	50	@	—
Oranges, ₱ doz	75	@	1 00	do fresh, ₱ lb	—	@	—
Limes, per doz	—	@	50	Pumpkins, ₱ lb	3	@	4
Figs, dried Cal	—	@	25	Parsnips, doz	—	@	25
Figs, Smyrna, lb	—	@	—	Parsley	—	@	25
Asparagus, lb	8	@	—	Pickles, ₱ gal	—	@	1 00
Artichokes, doz	—	@	75	Radishes, doz	22	@	—
Brussel's sprts	—	@	—	Summer Squash	—	@	—
Beets, ₱ doz	25	@	—	Marrowfat, do	3	@	4
Potatoes, New ₱ lb	—	@	6	Hubbard, do	3	@	4
Potatoes, sweet	—	@	3	Dry Lima, shi	—	@	10
Broccoli, ₱ po	12½	@	—	Spinage, ₱ hskt	8	@	—
Cauliflower	12½	@	25	Salsify, ₱ hunch	10	@	—
Cabbage, ₱ doz	75	@	1 00	Turnips, ₱ doz	—	@	25
				Rhubarb	12½	@	—

POULTRY, GAME, FISH, MEATS, ETC.

There is a very little poultry in the market this week; there is not much demand, hut prices are high. There are very few fish in the market to-day, save Smelts, Rock fish and Tomcod. There are no Smelts or Sales in the market. Salmon Trout are $1 to $1.50 each, and acarce, none being in the market this morning.

Chickens, apiecel	00	@	1 25	Whittaker's	18	@	20
Turkeys, ₱ lb	—	@	30	Johnson's Or	—	@	—
Mal. & Canvas, bk, pr	—	@	—	Flounder, ₱ lb	15	@	18
Tame, do	1 25	@	1 37½	Salmon, ₱ lb	15	@	—
Teal, ₱ doz	—	@	—	Smoked, new, *	25	@	—
Geese, wild, pair	50	@	75	Pickled, ₱ lb	6	@	—
Tame, ₱ pair	5 00	@	6 00	Rock Cod, ₱ lb	—	@	15
Snipe, ₱ doz	2 50	@	2 75	Cod Fish, dry, lb	—	@	12½
Quails, ₱ doz	—	@	—	Perch, s water, lb	12½	@	—
Pigeons, dom. do	50	@	—	Fresh water do	15	@	—
Wild, do	—	@	—	Lake Big. Trout	—	@	—
Hares, each	50	@	—	Smelts, large ₱ lb	8	@	—
Rabbits, tame	75	@	—	Small do	10	@	12½
Wild, do, ₱ dz	2 00	@	—	Silver Smelts	—	@	—
Beef, tend, ₱ lb	20	@	—	Soles, ₱ lb	—	@	—
Corned, ₱ lb

Stock Notices.

H. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

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GREAT SALE OF

Hambletonian Trotting Horses

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THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
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Pure Blooded French Merino Rams and Ewes,

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Also a few well-bred young Bulls of the Durham blood. 12v5-3m

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I have 30 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

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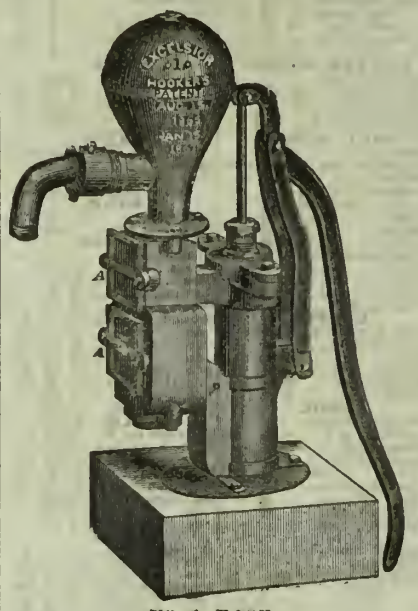


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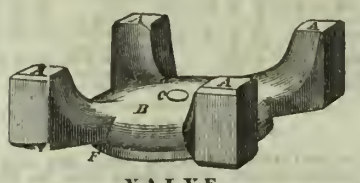
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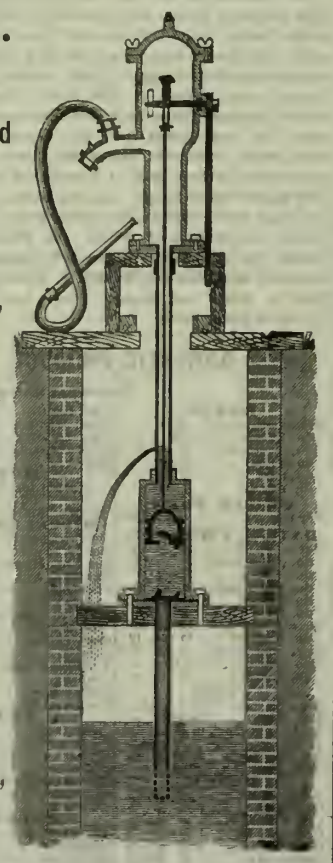
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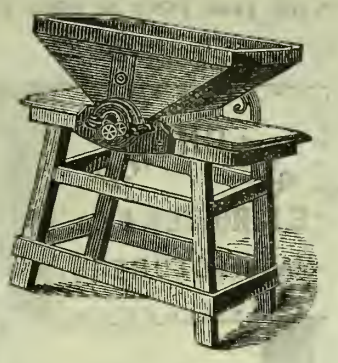
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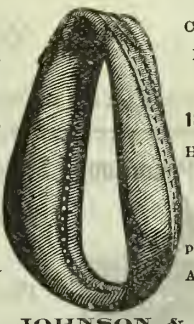
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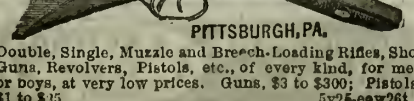
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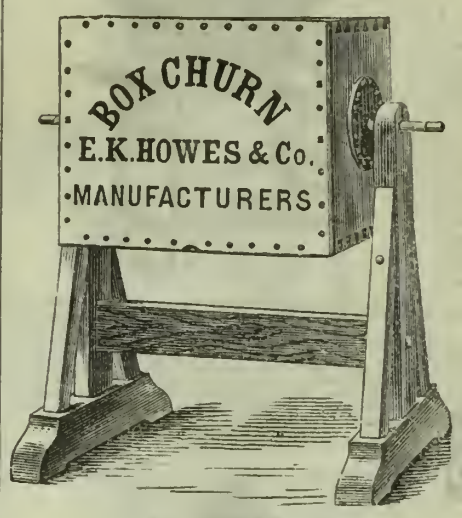
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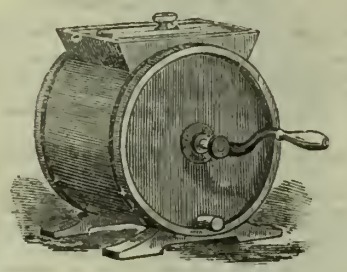
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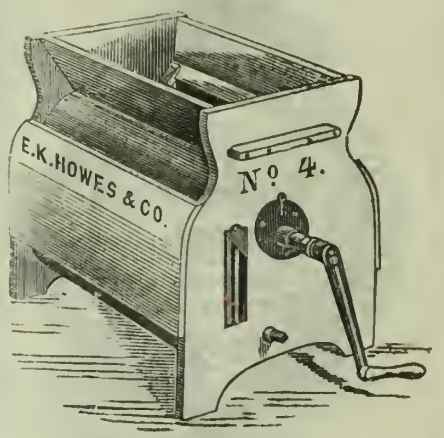


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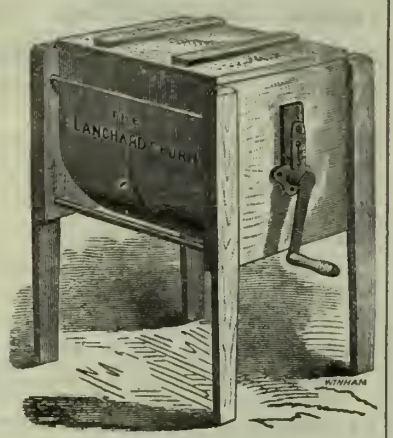


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Mangel Wurtzel,	Long Orange,
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All Imported Seeds.

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WITH YOUR COMMON STOCK.

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And all other diseases to which the Horse is subject, together with a complete description of the natural history, physiology, pathology and general management of the Horse in health and disease. It tells HOW TO TRAIN HIM to various gaits, how to prepare him for the chase, or for hard work, etc. Illustrated with numerous engravings. PRICE, FIVE DOLLARS. It will save its cost many times over in the course of a year. The book is having an immense sale.

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A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of basket. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into paper bags. SWAN & CO. are ready to make 20,000 per day.

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Lewis & Pander, Dealers in Stoves, Ranges, Tinware, and all kinds of Kitchen Utensils. The best and the cheapest. No. 32 Geary st., between Kearny and Dupont, S. F.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, APRIL 12, 1873. [Number 15.

Description of Light and Dark Brahmas.

The Brahmas certainly stand at the head of the feathered tribe. English breeders scout the claim of any other fowl to equality. They are excellent layers, (unless over fed) good sitters and mothers, extremely hardy, and bear confinement well. Certainly no other breed combines size, beauty, table qualities, productiveness and docility in such an eminent degree. Except plumage there is no choice between the Light and Dark when equally well bred. In each we find the cock with very strong and curved beak. Comb, pea, small, low in front, firm on the head, without falling over to either side, distinctly divided so as to look like three small combs joined together in the lower part and back, the largest in the middle, each parts lightly and evenly serrated. Any cock without such a comb is not a first-class bird.

Head, small and slender in profile, but broad, with a prominent and bright eye; deaf-ear, large and pendant; wattles, small, well rounded on lower edge. After the comb, look at deaf-ear and wattles, to find the former hanging as low as the latter; a distinctive mark.

The appearance of the neck, back, wings, tails and its coverts, thighs, fluff and legs, also carriage, are fully shown in the engravings. A description would add nothing which would help the general reader to form a better idea of the bird. The hen has a similar beak, a pea-comb, much the same head and eye, deaf-ear and wattles, carriage low in comparison with the cock, a deep, round, broad, prominent breast, a small tail, almost buried in the abundant, soft rump feathers, and pleuty of fluff.

All Brahmas have a bright red comb, face, deaf-ears and wattles, and their legs are feathered to the end of the toe.

Color of Dark Brahma Cock.

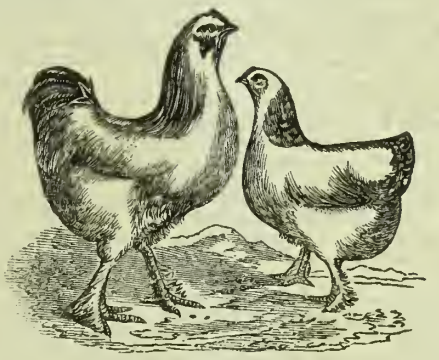
Neck-hackle and saddle, silvery white, striped with black; breast, underpart of body and thighs, black, or slightly mottled with white; back, shoulder coverts and wing-bow, silvery white; upper and lower wing coverts,* metallic green black, forming a wide, distinct bar across the wing; tail, black, the lesser coverts edged with white; legs, scales yellow, the feathers black, mottled with white.

The Plumage of the Hen,

Except the neck, which is silvery white, striped with black, and the head grey, consists of a dingy white, minutely penciled with dark steel grey, so close as almost to cover the ground color, and reaching well up the front of the breast.

Color of Light Brahma Cock.

Beak, yellow with a dark stripe; plumage of head, breast, underpart of body, thighs, wing-bow and coverts, white; the back, coverts of shoulder and saddle, the same, or having a light creamy tinge; neck, white, with a distinct black stripe down the center of each feather; wing primaries, black, or nearly so; secondaries, white on outside web, black on inside web. When the wing is folded, only a very narrow strip of black is seen, but when expanded it shows much black among the flight feathers. Tail, black; the coverts, glossy green black, the lesser coverts silvered on the edge; legs, scales bright yellow, feathers white or slightly mottled with black.



LIGHT BRAHMAS.

The hen has the neck, wings and legs almost the same as the cock; the tail black, the two highest feathers edged with white, all the rest of the plumage, including thighs and fluff, should be white. Of course the coloring varies in shade, some birds showing very much darker in the neck and even in the wings than others. I produce evenly marked birds by breeding a dark cock to light hens, and *vice versa*, always remembering that the male has more influence in the plumage and, selecting accordingly.

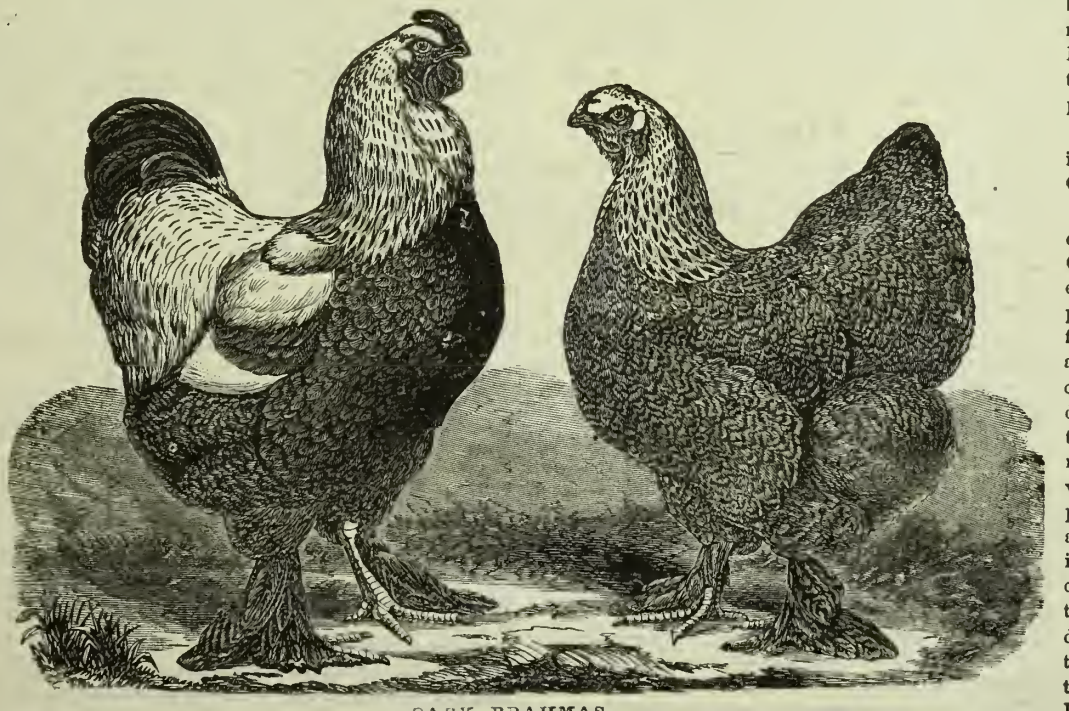
There is not much claim to originality in these descriptions, much of which must be a repetition of the standard, but I have endeavored to make it plain and easy, so that a reader of the PRESS can, with the aid of engravings, form a correct idea. Some dealers may assure customers that this or that point makes no difference, because they have birds to sell lacking in such points. But your readers should know an inferior fowl and if they are content to purchase such, dear at any price, it will not be because they have not the means of judging.

M. EYRE, JR.

Napa, Cal., April 5, 1873.

For the use of the spirited portraits of Dark and Light Brahmas illustrating this article, we are indebted to Mr. Geo. B. Bayley, of Oakland, who has kindly placed at our disposal all of his cuts for that purpose.

*It is impossible to give a description without employing such terms; but any one sufficiently interested in poultry to read this should have a poultry book, wherein can be found a diagram of a fowl and explanations of terms used in this article. I have already recommended Lewis' work. I would advise those raising any fine breed of chickens to take the *Poultry World*, the best of poultry magazines, all of which are cheap.



DARK BRAHMAS.

The Future of Our Tule Lands.

To the reclaimed tule and overflowed lands, we look forward for a more diversified and profitable agriculture than is possible on our valley lands, entirely dependent for moisture on the annual rains. The domestic grasses—timothy, clover, blue grass and alfalfa—flourish on the reclaimed lands of the lower San Joaquin and Sacramento to a greater extent than on any portion of the Atlantic States. In a few years, these tide lands will become as famous as the Mohawk Valley, or the blue grass region of Kentucky for dairy purposes and pasturage. Sweet butter and juicy beef, at all seasons, from perennial fields of blue grass within a few hours water communication of our principal cities, will be a consummation not far in the future, and one that our markets much need. When we justly boast of our enormous wheat crops, with a reserve capacity of many times the present production; of our great promise in silk and cotton; the abundance and perfection of fruit; the assured success of the vine, as well as being foremost in wool, we might reasonably consider the measure of our resources well under way of being developed.

We are pleased to learn, however, that experiments, during the past two years, in the cultivation of ramie, has induced one of our enterprising citizens, Mr. George Roberts, to commence its cultivation on a large scale, on Twitchell Island, with full confidence in its success. It is claimed that the tule lands are peculiarly adapted to this plant, which is semi-aquatic, and a native of the moist, rich land of Java. It is perennial, and after the first year needs no cultivation; so completely tropical in its growth, that it takes undisputed possession of the field. One planting will do for all time, and will yield from three to five thousand pounds of fibre per acre, annually, at two cuttings. The fibre is the firmest and strongest of any known textiles, being twice the strength of Belgian flax, and so fine and glossy that it might be mistaken, when properly prepared, for raw silk. It is extensively used in England and France in manufacturing fine dress goods, generally mixed with wool or silk. The commercial value of the fibre, when roughly prepared, is, as we are informed, from three to four hundred dollars per ton. When the fibre is thoroughly cleansed of all woody and resinous substances, and ready for spinning and manufacture into fine goods, it is worth two or three times as much.

Its uses are as varied as cotton or flax. Some satisfactory experiments were made in its cultivation during the past few years in Louisiana; but the lack of proper machinery to separate the fibre, and the general demoralization of all enterprises there, has discouraged planting it on a large scale. We have already called attention to the fact that a citizen of San Francisco has invented a simple machine, that by actual test, has succeeded in separating the fibre at a trifling expense. It is treated immediately after cutting, and does not require the rotting process.

Mr. Roberts is also experimenting in the cultivation of Jute, China Grass and Japan Hemp.

Jute is also a water plant, and one of the staple products of India. Over three million bales are annually exported from Calcutta. The largest production and best articles are from Bengal. Less than a quarter of a century since, its manufacture was commenced, in a small way, in Dundee, Scotland. Over one hundred thousand tons of the raw material are now annually used there. The cultivation of Jute will give a new impetus to the manufacture of burlaps, and reduce the great expense of sacking our wheat crop. There is a duty of forty per cent. on burlaps and thirty per cent. on Jute. It is confidently claimed that the reclaimed tule lands will produce from three to four thousand pounds per acre. It matures in from three to four months, and will not be injured by a moderate overflow. It can be planted as late as June. It is an annual, and is sown in drills or broadcast like wheat, and at about the same cost per acre. After cutting, the stalks are placed in water for ten or fifteen days, when the fibre is readily separated, and when dried and baled is ready for market.

We look forward to the result of these experiments with great interest, and hope to be able to chronicle, within a few months, the positive demonstration of a new field of industry and wealth for California enterprise.

W. B. PRATT, of Calistoga, it is said, has grapes which he put in wheat chaff last fall and kept dry in a cool place all winter, which are now as plump and well flavored as when plucked from the vine.

STRAWBERRIES.—Nearly eighteen hundred pounds of strawberries were marketed in San Francisco on Tuesday last, selling at 20 and 25 cents a pound.

CORRESPONDENCE.

Mountain Country of Los Angeles County.

EDITORS PRESS:—Having lately taken a sojourn of a week in the mountains north of Los Angeles, occupying the time in careful examination of the resources, both present and prospective, it may be of interest to the readers of the RURAL PRESS to have the results embodied as they can be but imperfectly in a written form.

Passing nearly due north up the Los Angeles River from the city to the Los Berdogas—say twelve miles—the base of the main range is reached.

Up to a recent date no one has made any attempts at penetrating this range for any purpose, and even now the deer and bear hold undisturbed possession.

Capt. Wm. Moore, now city engineer, has spent more time and money than any other one person in exploration of these mountains. At his instance and suggestion, a company was formed for cutting a wagon road direct to Soledad, by this route. Six miles of this road has been built, from the foot of the mountain; from the end of the grade a trail has been cut through from the summit and past the pine timber region to Soledad.

The trail is not passable for animals and barely passable for man, for in some places it is hewn out of the perpendicular face of the granite, and is barely a foot wide in the narrowest places, making it necessary to use great caution and to have steady nerves to traverse: for a slight inclination out of balance would precipitate the traveler hundreds of feet down among the rocks.

Leaving the animal we rode at the end of the grade, the trail was traversed, and also the cañons intersecting it, for 15 miles. Just as good timber as the State produces, grows in these mountains, and in quantities to warrant the construction of a road 30 miles long at a cost of probably not less than $30,000; 8 to $10,000 have been expended thus far, and good work has been done. The grade is such as to admit of a narrow gauge railway if required.

The water found in the first high range is the purest yet tested in this county, and as pure as any in the State; it was deliciously cool and as transparent as crystal. Such days of toil were followed by only such nights as repay the toiler for all the fatigue.

Entirely alone except the grizzlies which persisted in a reconnoisance of our arrangements nightly, a week of uninterrupted labor and pleasure was ours.

Oh how I wish the denizens of the cities and towns who never know the enjoyment of pure air and water, could all realize the inestimable privilege it is to live in such mountain places as can be found all over the State.

The citizens of Los Angeles claim that there is no point in this State that has superior claims, as to healthfulness, than this county can put forth and sustain, and the writer is inclined to admit the fact.

Now comes the points to be made in turning the products of these mountains to account The lowest pass where the trail crosses the summit is nearly 3,000 feet above the sea. The waters rise in some instances within 500 feet of the top, and fall, in ten miles, 500 feet at least. But we will assume that 400 feet is all that can be obtained for any considerable amount of water: gathered together now at the foot of the lawn there is over 400 inches, miners' measure—that with 400 feet fall, makes an amount of power to drive all the machinery now run in San Francisco; and this is untouched; also a number of other streams of much greater magnitude, debouching from this range on all sides, from the San Francisco Pass to the Cajou.

Here too is the finest bee pasture in the State. flowering shrubs, trees and plants cover the whole face of the mountains that are not bare perpendicular rocks. The honey dew is known to be in abundance for how else could the immense apiaries of Clark and others have continued to produce honey after all flowering had ceased—hundreds of thousands of swarms of bees can be profitably sustained, where now there are none.

Where deer and bear can subsist, other animals can live, although there are few domestic animals except the goat that would kindly take the feed from the declivities hereabouts.

The climate, water and fuel, so abundant here now, will be eventually grasped after and gasped for by those who would prefer to pass their days of toil in other than those inhospitable and unhealthy climes, where now the most of the labor of the civilized people is done. And, then, so near, where all or nearly all the material upon which labor subsists and is occupied is or can be obtained at the lowest rates. Think of the steamer freights that now swell the taxes to almost an unbearable rate upon the manufactured articles that are brought here that might better be made here.

How else can this beautiful southern land ever hope to be free—if not by that freedom worked out on the spindle, loom, anvil, lathe and plow?

To this end and for the purpose of a more perfect demonstration of the uses of the elements of true greatness laying untouched at our side, have we taken the initiatory steps to found a Sanitary Hotel and Industrial College in Los Angeles. F. M. S.

April 1st, 1873.

Chinese Labor.

EDITORS PRESS:—The periodical howl against Chinamen has commenced. Pixley and Winn lift up their voices in behalf of the down trodden American; and the Roman Father asks, with trepidation, "White man or Chinaman! Which?"

Now Mr. RURAL, I donbt if these friends(?) of the working classes, ever put in an honest day of manual labor. I feel sure that they do not understand the true interests of the people. at large. What are the facts in respect to labor in California?

1st. Every man who wishes and knows how to work has all he can do.

2d. We are, to-day, paying at least one-third more for white labor on farms than is paid in the older States.

3d. We are sending to Indiana and Illinois for school house desks, wagons, windmills and many other articles, because the mechanics there make them so much cheaper than here We send to New York for ready made clothing, boots and shoes and a hundred other things for the same reason.

Yet we have many of the Heathen Chinee. Suppose we banish our 60,000 Celestials What will be the result? Will the white laborer be any better off? "Surely" says Lawyer P., "the white man will then perform the work now done by the Chinaman and receive double wages for it." "And only work eight hours per day," says W., "and have time for intellectual improvement and be gods like us," hem!

Well. then, let the horse disease come and sweep away our horses. It will be a blessing. The white men will have all the goods to carry about the streets. They will have the wheat to pack on their shoulders out of the fields, where they have pounded it out with flails. We will see W. and P. carrying tons of tea from the Indian Dock to Front street; or cutting down our San Joaquin harvest fields, with the old-fashioned reaping hook, beating out millions of sacks of wheat with a flail and cleaning it from a tin pan in the wind, at six dollars per day, of eight hours.

The other eight hours of the day they will spend writing up, for the *Chronicle* and *Call*, the triumphs of white labor. Let us rid ourselves of these horses. They are performing the labor which white men might perform. *White men or horses, Which?* Away with the horses and let us have a Paradise for white laborers. FARMER.

A Lady's Inquiries.

EDS. PRESS:—Please state in your paper what will remove that disagreeable taste and smell from new pine vessels, also how to wash blue calico without its fading. Still another, what will prevent Dysentery in young chickens, and oblige, NEW SUBSCRIBER.

Saratoga, March 28.

Pine is almost entirely unfit for culinary uses, except for wash tubs. Nothing but repeated application of boiling hot water, continued soaking and long use, will entirely remove the peculiar odor of this wood.

To set the color of blue calico, mix a beef's gall and two or three hands full of salt with sufficient water to give the calico a good. thorough rinsing. Try a sample before submitting the whole to the test, for it depends much upon the material used in giving the cloth its color.

Simple dysentery in chickens can be checked by giving them pulverized chalk mixed with a little boiled rice and milk; or mix alum with their drinking water. so that you can by tasting, just perceive its presence in the water, and let the food be entirely dry for a day or two. The disease is caused in the first instance generally by feeding them with cold and too wet food.

Indian Corn in England.

EDITOR PRESS:—I have been told that Indian Corn or Maize is not cultivated in England—will you say if such be the fact and if so, oblige by informing a subscriber the reason; as the article is used in England and Ireland, though in small quantities and is imported into that country from the United States.

LAKE COUNTY.

Indian Corn or Maize is not grown as a field crop in England or Ireland, simply because the climate will not admit of it; it is too cold.

In the north of France even, it is only seen and grown as a curiosity as a hot or green house plant. We have seen considerable fields of corn, however, near Lyons and other places in the south of France, upon the rich alluvium of the rivers, and large quantities are grown in Northern Italy.

Healdsburg.

EDITORS RURAL PRESS:—In your paper dated Feb. 8th, I find an article on Healdsburg, written by "C." I am not a newspaper reporter, neither am I a farmer, and yet I take the liberty of writing this article to you.

I am a resident of H., and the interest I feel in its good name shall be my apology for this note, and if you deem it worthy, please give it a place in your excellent paper. He says: "Many a man has gone there attracted by its natural advantages and been driven away by seeing how little man has done for the place The houses are much scattered, and there are very few good buildings for a town of the size. This is by no means the worst of it, for taste, and refinement may be shown about the humblest cottage. The general want of these qualities is the feature of the place which most impresses itself upon a stranger." Again "Is it to be wondered that the class of men who make the best citizens hesitate to settle in such a place?"

It seems to me that any person reading the above, and never having been here would certainly think us all (except our editor) a lazy set of heathens—Come and see.

Is it not strange that we have two churches with grained seats, carpeted floors, frosted glass and organs, and another with an organ, but not as yet much furnished, and several others more or less comfortable. Our public school-house was built at a cost of $8,000 and stands on a lot facing three streets, so you see the play ground occupies three-fourths of a block; it is enclosed by a nice high picket fence finished in such a way as to be durable. In the school are five teachers; they open in the morning by singing and music on the piano.

The Plaza is fenced at a cost of $1 per foot, and painted one coat at a cost of 8 cents per foot; there are eighteen deciduous oaks on the Plaza; next year it will be set with evergreen. and ornamental trees, flowering shrubs, etc. "C." complains because the houses are so much scattered. I was always foolish enough to think this one of the pleasant features of the town; why not have room enough to sit under our own "vine and fig tree?" Who wants to hear every baby that cries, and what all their neighbors say? As a rule the lots are 66 feet front, and many persons own two such lots. one filled with fruit trees, and the other occupied by house, flowers, etc. There are exceptions to this; some having only one lot, others several.

This town has already been noted for it's vine clad trellises, its climbing roses and its beautiful flowers, with varied hues and sweet perfume I know of many ladies who send to "Vick" and others, every year for flower seeds and bulbous roots. The nursery spoken of has been doing a flourishing business for five years, and two nursery men near Petaluma sell many loads of trees, etc., here every winter.

The houses are as fine as the owners can build and pay for; what more could an honest man ask, many dwellings costing from $1,000 to $5,000. Our town is in its "teens," and we are not rich, we need men of capital to build a woolen factory and paper mill, there is plenty of wool for the former and straw and (I guess) rags for the latter. Our water is splendid and soft. Our wood is $4 per cord for black oak, and white oak $3.50. The more I read the article of Feb. 8th the worse it seems to me; I must say, I think it very unjust. I wonder if "C." ever planted a tree, or set out a flower?

Doubtless we have our share of scum; it finds into every town, and I think the worst of it finds its way into saloons, especially behind the bar, where an excuse for a man deals out liquid poison. When will the voters of our fair land arise in their strength, and prohibit this nefarious business? My theme is not exhausted. but time and space fail me to say more. I should have written sooner, but household duties and flowers have occupied my attention Hoping my letter will not weary your patience I remain, S.

We are always pleased to receive just such plain sensible talk as the foregoing and we hope that Mrs. S. will continue to inform us of matters in and around Healdsburg, as they appear to her.

Santa Barbara.

One of our readers C. L. orders his paper continued another year, because, he "cannot get along without it; that it is exactly what the farmer and stock grower needs"

We think him sound on the subject of the RURAL and probably is equally so when he says, under date of March 24th, that Lower California at that season of the year is perhaps the most beautiful country in the world. with its miles on miles of rich pastures intermingled with flowers and a climate weather too hot or too cold. just warm enough to make everything grow finely: no flies, fleas or musquitoes to speak of, just the place to take real comfort in.

A great deal of the grain is 24 and 30 inches high: pumpkins and early corn are up and growing nicely; turnips as large as a tea saucer and all other vegetables in abundence; the fact is if you want to see Italian skies and climate come to Santa Barbara; though the climate and country are equally good down as far as Los Angeles.

Riverside, Southern California.

ENS. PRESS:—Your correspondent, H. P., of Spring Hill, Kansas, in the PRESS of the 15th inst, desires information in regard to fruit culture in California, and wished to know if there "is a place in California where all of the following fruit and nut trees thrive and bear well, to wit: apple, pear, peach, plum, cherry, quince, almond, English walnut, olive, fig and grape," and you request fruit-growers to define what their particular locality will produce.

San Bernardino county will produce the Pear, Peach, Plum, Quince, Almond, Olive, English Walnut, and Grape in perfection. The apple tree grows well, and bears well, but the fruit is not so highly flavored as in colder sections. The cherry is uncertain. But to make up for the defects of the apple and cherry, the Orange, Lemon, Lime and Pomegranite do as well as in any portion of California.

There are thousands of acres of unoccupied lands in this county of the best quality, for fruit culture. But the most desirable place for the culture of all the above named fruits is the Riverside lands.

This place though young, has already proved a success, beyond the expectations of the most sanguine. Even your correspondent, F. M. Shaw, who visited us, a few weeks ago, was compelled in honor, to give us a little credit, notwithstanding the hit he gave us as he passed about a year ago. The climate here is unsurpassed for healthfulness, and for drying raisins, figs, prunes, and other fruits.

The soil is a red sandy clay, or what is known as the red bench land. This character of soil is known throughout the State, as being the very best for fruit culture. Land here can be had on reasonable terms, and plenty of water for irrigation, an item not to be overlooked, in settling in any of the southern counties of California. P. S. R.

Farmers' Wives.

EDITORS RURAL PRESS:—I think good temper a good thing, but I believe it to be possible to have too much of a good thing, and I think any farmer's wife who was not roused to anger by an article in your last issue, would be altogether too good tempered. Your correspondent, "E T. H.," says: "It is rare among farmers' wives, where I am acquainted, to see a woman with a collar, or frill, around her throat. yet how much it adds to her neatness. Do not appear with rents in your skirts, or gathers torn, or your hair undressed."

Now, Mr. Editor, I am a farmer's wife and a farmer's daughter, and a large part of my life has been passed among farmers. I have been in a great many farmers' houses, at various hours of the day, and the one or two farmers' wives that I found "collarless," with "gathers ripped," and "dresses dirty" and hair unkempt, were the exceptions, and as lightly esteemed among their neighbors as a sloven would be anywhere.

There are other points in your correspondent's letter that speaks of things showing so low an idea of farmers' style of living, that I will not say anything, lest I say too much.

In conclusion, I will only say that it may be that the farmers' wives dress in that style in Fresno, but they certainly do not in ALAMEDA.

How to Raise Carrots with Small Expense.

EDITORS PRESS:—The chief expense of raising carrots is hoeing out the weeds. This may be saved by the following mode of planting. The ground should be plowed deep and pulverized with the harrow. When the weeds have started, destroy them with the harrow, and continue this process until the rains are over: plant deep with a drill and roll the ground.

Should rain fall, and the weeds start, it is cheaper to harrow and re-plant than to attempt otherwise to kill the weeds. It will not do to plant thus late on freshly plowed land, it will dry out, and the seed fail to sprout. I have planted as late as the first of May with good success. W. W. B.

RAPID GROWTH.—The agricultural counties are gaining population with greater rapidity than is generally supposed. Merced may be cited as an instance. The first sale of lots in the town of that name took place in February, 1872. Now the place contains nearly a thousand inhabitants. In a fair vote it took the county seat away from Snelling; has one of the finest country hotels in the State. is extensively set out with trees and shrubbery, and is monthly to the number of its dwellings and warehouses, and in most other respects exhibits all the evidence of a permanent and prosperous future.—*Call.*

LAND OFFICE ORDER.—The comissioner-General of the Land Office on the 1st inst. sent instruction to the Register and Receiver to carry into effect the Act approved March 31, 1873, providing for the joint entry of agricultural land to two or more pre-emption settlers prior to a survey of the same. A legal sub-division may elect one of their number to make an entry and contract for a private conveyance back to the company pre-empting, when the patents are received.

GILROY is the seat of the latest quicksilver discoveries, three "chimneys" having been found recently.

Home and Farm.

Wayside Chat.

[BY MARY MOUNTAIN.]

To appreciate the full delight of traveling it is only necessary that one should spend several years in the backwoods, far away from the screech of the locomotive and all the rush and clamor of the busy world.

To hear Alex declare with eager impatience that he had "forgotten how a stage feels," and then to ride gaily to Watsonville, three stages in line, opposition whips urging the fast horses, oppositiou mud-wagous bouncing us up and down till we saw stars in the most unexpected places, and learned exactly "how a stage feels"—this was a pretty good beginning of the long-talked-of journey.

It was a real comfort to learn that it would take six horses to pull us through Watsonville mud to the railroad stations; and whenever the hubs of the wheels and the legs of the horses sunk out of sight, I remembered with pride and joy that Santa Cruz mud was not quite so deep as that; although all winter we have growled our grumpiest, and bitterly believed we could never brag much more about our lovely Santa Cruz.

But indeed we can; for this mud is a few feet deeper and "it smells to heaven."

The bushy little man who fortified his nose with cigar smoke was still dissatisfied, and grumbled that "the air is worse than a pig-pen."

"What yon talkin' about?" said the new man who had just clambered in, heavy with mud but light of heart, and ready with his good word. "What you talkin' about? This aint Watsonville nohow. This is the new town Patherro. They haint got all ther improvements done yit."

"Railroad cump'ny otter plank it" piped a small voice, cheery as a spring robin.

"Railroad cump'ny! Ketch 'em doin sech a thing as that! They don't care fer nuthin but makin' lots o'money; startin' up new towns jist ter spite the old uns."

"Look out for your babies! If you drop 'em now they're gone sure!" shouted somebody from the driver's seat as we floundered deeper than ever, and the cars came screaming along the track as if laughing at our ridiculous plight.

From the mud-wagon to the spacious cheerful car is a pleasaut change, and the children asked, "Are the cars always so nice, and the seats so soft? Won't we have a grand time!"

Grand time indeed as we settle the lunch basket carefully and ourselves cosily with senses alert for every bright, new pleasure.

Just for the looking we have changing landscapes glorious with sunshine and all springtime loveliness.

When the eyes are tired, here is the interesting oddity of contact with the serious, comical, indifferent traveling public.

Here is the tired mother, whose tired baby cries till everybody wishes,—and sure enough baby goes to sleep at last.

Here is the foolish and fashionable mother whose naughty boy needs a spanking and don't get it; but gets instead an enormous quantity of candy and coaxing.

Here is the big pompous man with the big white hat, and a tongue that wags like triumphant perpetual motion.

The man who blinks and listens is a curious study; and so are the other men who come up and are introduced to Judge Buzfuz.

They all dine merrily at the 15 minute station, and I am delighted to see judges, lawyers and clients plying their honest knifeblades with as much gusto as though Dame Grundy had never declared that forks alone must enter the genteel mouth.

Forks will do when there's plenty of time and you can afford to lose a bite now and then; but at the 15 minute station Dame G. herself might recklessly conclude that it's knives or nothing.

All the women and children eat lunch quietly in the cars, sitting apart,—no chance for jollity or swapping goodies, because we are indifferent to each other as becometh strangers.

How I would like to move about freely and ask questions as the men do.

There is such constant suggestion of questions as we go through this beautiful country, full—no, not half full of farms, farm-houses and embryo villages.

We pass long stretches that look well, only desolate and unused.

I pluck up courage and speak to an elderly person, and then to a youngerly person; but don't happen to hit the intelligent and reliable citizen who can tell me anything and everything I want to know.

Judge Buzfuz has his court of admiring listeners not far away; but his voice is strictly within bounds, and no crumbs can be gathered from that abundant table.

So a lone lorn woman can only use her eyes, and silently rejoice when she sees a well-built barn; a tidy, almost handsome farm-house, and occasional signs of flower culture and general gardening among the country people.

The fields are not in such a state of soak as ours at Santa Cruz, and farming operations seem more advanced.

By and by we have our first glimpse of beautiful San José, and look eagerly for the fine buildings we have heard about. As we go slowly past a very grand one indeed, a fellow passenger hears our guessing and says, "Yes, that is our State Normal School." I thank him heartily for this bit of information, but he helps us no more; perhaps he is also a stranger to the place.

The station is lively with a well-dressed, wide-awake crowd; and to watch the eager movement, the greetings, the partings—to scan the new faces that enter the car, and listen to the chat of those who have merry companions—all this is as good as a play, and not without points of dramatic interest if we look with our eyes open. Mine are very wide open and the drama almost tragical when I see my trunk thrown into a carriage and whirled rapidly away. Alack-a-day!

"Each pleasure hath its poison too,
And every sweet its snare!"

Of course nothing can be done till we reach San Francisco. I look to see if my check is safe, and settle again to my studies of travel. But things are not as interesting as they were; nobody cares for anybody.

Arrived in San Francisco; my chief anxiety is to see the baggage master, and what a fine looking fellow he is as he pitches out my own "truly" trunk with as much indifference as though I had not lost it at San José, and had the fidgets all the way up. How lucky that I said nothing about it; but the other woman's trunk was like mine as two peas.

The chief interest of San Francisco for RURAL readers centres at the haunts of our favorite "Eds." and now having seen exactly what they are like do you think it is easy to tell all about them with a pen?

Fifteen years ago I went to Yosemite, and we picked our way along by blazed trees, and were among the first to use up all the superlatives of the English language, and then stand silent and insignificant amid the mighty works of God. Have always been wishing to write up that journey; but the impression is too profound and I don't like to meddle with it. After another decade perhaps the softened outlines may be touched and the wonderful experience reproduced.

Just so with this visit to my "Eds." The grandeur and significance of their work—its harmonious action and far-reaching influence, have given me a *realizing* sensation; and I want to keep it awhile to see what it is like.

This is selfish; and when I think of "Sally of the Plain," and all the other good sister farmers who would like to enter the *Sanctum Sanctorum*, and talk face to face with the Oracles, who there preside, I am tempted to outdo Jenkins himself in the gushing fervor of my descriptions. But let us have compassion on defenceless "Eds." even though we know they can endure more indiscriminate praise and blame than any other known class of animate beings.

The last day I went out early and alone to finish the shopping and all the errands. Not understanding the short cuts, I traveled in circles, lost much time, and found the day waning with cold winds, threatening skies; but some things must be waited for; so I turned in a palatial book-store, where literature and learning are grandly massed, impressing the unaccustomed soul most profoundly.

Taking the first chair and a book that was near I tried to absorb my share of whatever might be afloat in this atmosphere of condensed intellect. By and by the bright and beautiful ladies all went away and I became suddenly conscious of the suspicious scrutiny of a head clerk who flitted uneasily about and rolled great eyes at me. Too tired to care, I went on filching good bits from Jean Ingelow's last book; but finally rose to explain and to take my leave.

The faithful clerk moved rapidly to the door and held the handle firmly while he counted the volumes near which I had sat. Could he really believe I had filled my innocent satchel with books?

When I saw he was satisfied, I told him I had been resting and enjoying a glimpse of his (?) magnificent establishment. Then what a smile and a bow gave he, and the crystal door was opened with a flourish. Leaving the enchanted region of books to encounter the hurrying crowd, I felt the full force of the depressing gloom that comes to the stranger in a great city, and the bustling street seemed far more lonely than the solitary home I had left among the Santa Cruz hills.

FORCE OF THE WIND.—A singular occurrence took place at a point on the Jersey shore, nearly opposite New York, a few days since, strongly illustrative of the force exerted by the wind. While a large number of men were at work upon a ship on the stocks a gust of wind suddenly lifted the open house which was employed to roof over the work and carried it entirely away. It was 250 feet long, 80 wide and 80 feet high. Singularly enough no one was injured by the sudden removal.

EFFECTS OF SULPHUR ON PLASTERING.—We find in the *Builder*, a note on the effect of sulphurous gases emitted from the coal upon plastering, in which it is claimed that the hair in the ordinary plaster becomes the means of disintegrating if unprotected by a covering of a character to resist the gas emitted by the coal, which contains more or less sulphur.

PICRATE OF LEAD.—It has been found that silk goods containing picrate of lead frequently take fire in railway transit. Investigation has shown that the fire is due to the picrate of lead, which, under such conditions, ignites with very little friction.

Miscellaneous.

SINGULAR CAUSE OF FIRE.—The works of the Rubber Cloth Company, at Naugatuck, Conn., were destroyed by fire several weeks ago under the following singular circumstances: The building an old one of wood, was 100 feet or more in length. The cloth is prepared by treatment with alcohol and linseed oil, and, during the operation, is passed over wooden rollers and extended along, for fifty feet or more, into a smaller vulcanizing chamber some thirty feet in length, where it is hung in folds from the ceiling to be dried and heated. The heating is done by steam pipes. Electrical sparks had been noticed in passing the cloth along over the rollers. On the morning in question, which was exceedingly cold, the sparks had been observed to crack louder than usual. A snow storm was in progress at the time. The workman, who was engaged in hanging the folds of cloth in the vulcanizing chamber states that suddenly there seemed to come from his hands a sheet of electric fire, there was an explosion, the place was instantly in flames, and himself and others had to run for their lives. The building and contents were soon destroyed. The theory is that that the fumes of alcohol and oil formed an explosive gas in the apartment, which the electrical sparks ignited, just as gas ordinarily is fired by electricity.—*Scientific American.*

LIGHT.—According to the theory generally received at present, the whole universe is an immeasureable sea of highly attenuated matter, imperceptible to the senses, in which the heavenly bodies move with scarcely any impediment. The fluid, which is called ether, fills the whole space—fills the intervals between the heavenly bodies, as well as the pores or interstices between the atoms of a substance. The smallest particles of this subtle matter are in constant vibratory motion; when this motion is communicated to the retina of the eye, it produces, if the impression on the nerves be sufficiently strong, a sensation which we call light. Every substance, therefore, which sets the ether in powerful vibration, is luminous; strong vibrations are perceived as intense light, and weak vibrations as faint light, both of them proceed from the luminous object at the extraordinary speed of 186,000 miles in a second, and they necessarily diminish in strength in proportion as they spread themselves over a greater space. Light is not, therefore, a separate substance, but only the vibration of a substance, which, according to its various forms of motion, generates light, heat, or electricity.

INCOMBUSTIBLE AND INDESTRUCTIBLE WOOD.—Quite too little attention is paid to the preparation of woods for construction purposes so that it may be rendered comparatively incombustible and indestructible to ordinary sources of attack by rot, insects, etc. By employing some of the many preparations, already known, wooden dwellings may by made almost as safe from fire as those constructed of brick or stone, and as little liable to decay as though they were made of iron. The time will soon come when these desirable qualities will be added to ordinary lumber, for such a small addition to its first cost as to place such prepared wood within the means of any person who can build a house or wharf.

In connection herewith we refer to still another invention in this direction, by one Macomber, of London, who is said to have devised a plan for rendering wood both incombustible and indestructible by insects or decay, by a single operation. He takes lumber in its green state, and having first, by hydraulic or steam pressure, or otherwise, expelled the sap, replaces it by a chemical composition of his own invention which he keeps secret, and which is to destroy the inflammability of the material. Not only this, but the liquid is to act as a preservative in other ways, preventing the wood so treated, rotting from the attacks of worms or insects.

MEASURING THE LIGHT OF THE STARS—IMPORTANT INVENTION.—The photometer has recently been quite successfully applied to astronomy in measuring the light of the heavenly bodies. Of course the instrument so used is quite different from that employed to compare the relative intensity of flames here on earth. The astronomical photometer, invented by Tolner, is based on the polarization of light. By attracting such a polarizing photometer to a telescope, he has been enabled to determine the comparative luminosity of divers heavenly bodies with greater accuracy than had previously been possible.

The special importance of this discovery or invention arises from the fact that, the observations on the comparative luminosities of different stars will now be so accurate as to furnish reliable data on which future astronomers will be able to determine what changes have taken place in course of time; changes which are sometimes very great and of the utmost importance to the extension of our knowledge of the nature of the heavenly bodies. As a standard of comparison, he uses the light of a lamp shining through a pin-hole; and in order to be independent of the perhaps variable light of this lamp which may differ on different nights, he compares two stars with the lamp, and only notices the difference between the stars.

A SINGULAR INVESTIGATION.—Most of our readers are acquainted with those singular little pieces of glass called "Prince Ruperts Drops" or "Dutch Tears," elongated drops of glass, with a slender stem at one end, which, when broken while the other end is held firmly between the thumb and forefinger, the whole mass instantly crumbles into fine grains, producing by the concussion, a stinging sensation in the hand holding it. Dr. De Luynes has recently communicated to the French Academy of Sciences that, on investigation, instead of finding the glass when broken in irregular particles, like ordinary glass, he found that each particle was in the form of a small cone.

By enclosing the drops in plaster of Paris, he succeeded in breaking them without allowing any of the fragments to change their position. He then found that each particle is a little cone, with its apex always turned towards the point where the force causing the rupture had been applied. The little cones are partly enclosed one within the other, and are remarkably regular in their arrangement, and a similar regularity of rupture is observed in glass rods which break spontaneously in consequence of their not being sufficiently annealed. The rupture may be accompanied by an elevation of temperature of about 70 deg Fahrenheit, and often by a flash of light. Small things frequently furnish a clue to the explanation of great phenomena, and M. Elie de Beaumont thinks that something analogous to what takes place in the little Rupert's drops is constantly going on in the interior of our earth.

HEAT OF THE SUN.—There are few things in which physicists so much differ as in their estimation of the temperature of the sun. Some hold that it is not greater than that of the electric arc, (whatever that may be), others double that heat. Father Secchi estimates it at 2,000,000° Fahr., and Ericsson at 6,000,000. Herschel gives the following curious idea with regard to the heat of that luminary. Suppose a rod of ice of sufficient length, but 45 miles in diameter, was projected toward the sun at the inconceivable velocity of ten millions of miles per minute, and under such circumstances as could concentrate the entire heating power of the sun upon the end of that rod, (representing a disk of 45 miles diameter), the advancing rod of ice would never reach the sun, because its approaching point would be melted away as fast as it came!

MATCHES WITHOUT SULPHUR, OR CHLORATE OF POTASH.—It has long been a desideratum to secure a match which could be readily ignited without the production of the unpleasant fumes of sulphur, or the dangerous explosive spark due to the nitrate of potash. And it is now reported that a Frenchman, named Escach, has patented such a match, which can be ignited by rubbing on any rough surface, and which does not become damp when exposed to the air for a long time. The splints are first soaked in a hot solution of some fatty body, and then dipped in a paste of which the following are the constituents: phosphorus, 7 parts; gum, 7 do.; nitrate of lead, 40; powdered glass, 5; water, 10.

COAL CUTTING MACHINERY.—The improvements in coal cutting machinery are such as to bid fair to work a most important revolution in coal mining. It is claimed that they have a new machine at the Helton colliery, in Durham, worked by compressed air, by which, it is said, 60,000 colliers will be enabled to produce the same amount of coal as the 300,000 now employed. Of course we should allow something for the distance which that report has traveled to reach the Pacific Coast; but the general testimony is that machinery will soon be made to do all the "colling" in coal mines, which form a large portion of the labor, and in very narrow seams, we may say, the principal portion. The saving thereby made in the waste of the coal is also a very important item.

CAST IRON PRODUCT OF THE WORLD.—The annual consumption of iron has reached an enormous figure and is still rapidly increasing. A careful estimate of the product of cast iron for 1871 is given in tons as follows:

Great Britain	6,500,000
United States	1,912 000
France	1,350,000
Germany	1,250,000
Belgium	896,000
Austria	450,000
Russia	330,000
Sweden and Norway	280,000
All other countries	347,000
Total	13,315,000

From the above it will be seen that the annual product of Great Britain reaches within a fraction of the total product of all the rest of the world.

BRONZE.—The doom of brouze, as a material for rifled guns, says the London *Daily News*, has been sealed. The manufactnre of seven-pounders in that metal for mountain and boat service has now been given up, and orders have been issued for the construction of steel 7-pounders instead. The failure of bronze has been a great disappointment to its advocates, who only a few years ago were full of confidence in the perfection of their favorite material.

IN AID OF SCIENCE.—Cyrus W. Feld has notified Prof. Henry of the Smithsonian Institute, that all announcements of important astronomical observations or discoveries will be received or transmitted by the Atlantic cable free of charge.

Farmers in Council.

San Jose Farmers' Club.

The Club met Sat. 29th, President Casey, presiding.

Mr. Hobson, from the Committee on Labor Exchange, reported that the agent at the Farmers' Stalls would attend to this business, and establish an exchange at the Market where farmers and laborers can have their wants in this respect supplied.

The Secretary read a communication from Kohler & McDougal of San Francisco, who proposed to make grain sacks at one cent apiece—farmers to furnish the burlap cloth. By this means the farmers would obtain sacks from four to five cents cheaper than otherwise.

Mr. Holloway said that he had heard of a similar proposition from other parties, the sacks to be manufactured in San José. He would prefer giving the business to parties at home.

On motion, the communication was referred to the Committee on Sacks.

The question selected for discussion next Saturday is: "Resolved, that all of our taxes should be paid in currency, and that all the business of the county should be done upon the same basis."

Mr. Holloway wanted to know what is the most economical feed and crop that can be raised in this valley.

Mr. Dubois said that would depend upon the kind of land.

Mr. Holloway thought that if a man had two or three hundred acres of land on which he could raise three or four tons of hay to the acre, that would be best.

Mr. Dubois thought if the land would produce carrots it would be best to raise them.

Mr. Holloway—You can make more gross dollars I grant you, but is it so economical in the long run?

A Lady Speaks.

Mrs. Carrie F. Young being present was called upon to address the Club, which she did in a short speech, giving an account of the tropical fruit crops in the Southern counties. She said that if the farmers had any land where ice would not freeze more than an eighth of an inch in thickness, they could grow limes, lemons and oranges with success. In colder positions than this the crop would not be certain without protection to the trees. She gave many valuable particulars in regard to the details of the culture of this fruit. She said that orange trees in the propogating bed ten months from the seed reach a hight of two feet, and at two years old were eight feet high and stocked in proportion. This was in the Southern counties, but with the same care like results could be attained here. The bearing trees are all seedlings; no grafting is done. In regard to the almond and English walnut, she said she had seen no trees that had fruited satisfactorily to their owners, but they expected better results in future. She noticed that in California the mothers and daughters had taken the lead in the orange culture, and to them more particularly was due its present development.

The question for the regular debate was, "Resolved, That the Defendant in all cases at Law should have the power to compel the complainant to referee."

Mr. Erkson said the question hardly admits of debate. The proposition was self evident. He knew of no State which made a reference obligatory, but it was one of the rules laid down in Scripture. He thought a compulsory law of this kind should be enacted in California.

Mr. Hobson said that the Society of Friends had adopted this rule two hundred years ago. Among them all questions must be referred before an action at law is commenced, hence there is very little lawing going on in that Society.

Mr. Woodhams said that he was in favor of such a law, as the matter stood now. It was in reality a trial by jury; was nothing more than a reference to twelve men, and it would be better to have this done without all the rigmarole of a proceeding at law. He suggested that the members of the Club should adopt a rule similar to that of the Quakers.

Mr. Holloway said that under the present law it was all plain sailing where both parties are willing and anxious to compromise. But what he wanted was some law that would protect a defendant even when the plaintiff is willing to compromise. When we are forced into a lawsuit, we want the power to *compel* the plaintiff to referee, and thus save the vexatious litigation which is the main object sought in a majority of suits at law. He said that about three per cent. of the entire population did all the litigation, and yet they paid no more taxes for this expense than those who never had a lawsuit in their lives. We build fine Court-houses and christen them in a language and with a name that the common people cannot understand, and they call this republicanism.

Mr. Erkson said the details of such a law would involve more difficulties than would be seen at the first glance. The party to whom the reference is made should know the rules of evidence so that the rights of neither plaintiff nor defendant should be prejudiced. He thought, however, these rules could be prescribed by the law, and thus the system could be made practicable. He thought the Club should, by resolution, declare itself in favor of such a law.

Mr. Berglaud said he never yet saw a witness that he could not cross-question for himself as well as any lawyer. He said that the examination of witnesses by lawyers tendered to cover up fully as much truth as it developed.

Mr. Holloway said he wanted no rules of testimony to govern him in his action as judge or referee in a case. He said that with lawyers the older they could get their precedents the better and the more impudent their cant. He proposed that the board of referees should be masters of the situation and not be bowed down by rules of testimony. Let them decide for themselves, not go back to musty books for rules.

Mr. Dubois said he considered the question one entirely beyond the reach of the Club. He said the machinery of the judiciary was the worst complicated of all our institutions. If we were compelled to referee, who would be judge of admissibility of testimony or points of law. He considered the results of such a compulsory reference would be like shuffling a pack of cards. The title to our property is founded on the law, not on the opinion of three men not lawyers; and if it was, I wouldn't like to own much property.

On motion, the resolution was adopted.

The Secretary was instructed to report the action of this Club on this question to other clubs of the State and request their co-operation.—Adjourned.

Mercury.

Farmers' Club of San Gabriel Valley.

The farmers of San Gabriel Valley held their meeting at W. L. Jones' Hotel, El Monte, on the 22d March. About sixty were present, and great interest was manifested.

The object of the association is to promote and protect the individual and collective interests of its members, and of the agricultural interests of the State generally; the collection and dissemination of useful information touching the art and science of agriculture, and the promotion of closer social relations among its members and their families.

Any person may become a member on being proposed, and on paying the initiation fee of one dollar. The annual payment is also one dollar.

Regular meetings are to be held at El Monte, at 1 o'clock P. M., on the first Saturday in each month.

The permanent officers elected were: Gen. Geo. Stoneman, of San Gabriel. President; Vice Presidents—Col. Winston of San Gabriel; Asa Ellis, of El Monte, and Wm. W. Maxey, of Azusa.

Secretaries—Geo. H. Peck, of El Monte; John S. Gordon, of Azusa.

Treasurer—F. P. F. Temple of El Monte.

The chairman of standing committees are:

Wines and fruits—Gen. Stoneman.

Tropical fruits—Rev. H. H. Messenger.

Horses—M. F. Quinn, of El Monte.

Cattle—Albert Rowland, of La Puente.

Dairy products—A. H. Hoyt, of El Monte.

Hogs and bacon—Dr. Wm. Gellar, of El Monte.

Sheep and wool—Joseph Workman, of La Puente.

Poultry and eggs—Col. L. H. Marshall, of Azusa.

Bees and honey—John S. Gordon, of Azusa.

Farming—John C. Hannon, of El Monte.

Farming implements—R. C. Floyd, of El Monte.

Tobacco and cotton—Stephen Penfold, of El Monte.

Flax and castor beans—Geo. H. Peck.

Water and irrigation—General Stoneman.

On motion of Judge Gordon, it was

Resolved, That the Farmers' Club of San Gabriel Valley does heartily endorse the objects of the Farmers' Union of California, Gen. John Bidwell, President, and that it will cooperate therewith, and other Clubs of Los Angeles county.

The meeting then adjourned, to meet at same place at 1 o'clock P. M., on Saturday the 5th of April.—*Los Angeles Star.*

Merced Farmers' Club.

The Club met March 20th, President Jolly in the chair. On motion, a Committee of three was appointed by the President to enquire into the feasibility of incorporation. The Committee consisted of the following members: R. S. Clay, M. D. Atwater, and W. W. Gray. The Club then balloted for the election of delegates to attend the meeting of the "State Farmers' Union," to be held in San Francisco on April 9th, R. S. Clay, H. B. Jolly, and W. W. Gray were duly elected as delegates.

The order of the day was then called up: "What is the best method to be adopted by this Club to procure the highest market price for grain?" The President was requested to lead off in the discussion, which he did in a few earnest and pointed remarks. Vice-President Gray was called to the chair. The President said that the great consideration is, how shall the Farmers combine so as to secure a fair price for their grain? He urged the farmers to have more confidence in each other, and work together for the common good.

The President's remarks were listened to with close attention, and were well recived. Mr. Fowler thought the first thing necessary was a better and more thorough organization. He thought that the farmers should dispose of their own grain direct to shippers. Mr. Gray remarked that he had been in the grain business for some years, and that he had made fifty cents per ton on wheat with scarcely seeing it, and without weighing or handling, or being to scarcely any expense whatever.

Mr. Clay thought that the farmers would have to organize on a more substantial basis, and have a bank or corporation through which to act. On motion, the same subject was continued for discussion at the next regular meeting. The Club then adjourned.—*Merced Tribune.*

Stanislaus Farmers' Club.

The Stanislaus County Central Farmers' club met at the Court house, Saturday, March 29th, R. R. Warder in the chair. The Special Committee of five appointed at the previous meeting, reported that they had succeeded in getting subscribed $210,000 to the capital stock of the proposed new bank, and recommended that the share-holders meet at that place immediately after the adjournment of the club.

Mr. Walthall, Secretary of the club, stated that at the suggestion of Mr. Gallup, Secretary of the Branch Township club of this county, he had, through letter, solicited of the C. P. Railroad, reduced rates of passage for the delegates elected to attend the Farmers' Union Convention, to be held at San Francisco on the 9th of April. The reply to that letter, from Mr. Goodman, General Passenger and Ticket Ag't., was read, and on motion it was ordered to be spread in full on the minutes of the club, and to be published in the Stanislaus *News*. The letter is as follows:

[No 629]

CENTRAL PACIFIC R. R. AND LINES
OPERATED BY C. P. R. R.
OFFICE GEN. PASSENGER & TICKET AG'T.

L. B. WALTHALL, Esq., Sec. Stanislaus Farmers' Club, Modesto, Cal.

DEAR SIR:—Your favor of March 25th, 1873, is duly received. In answer thereto we have to state that owing to many causes our managers have found it necessary to instruct that no reduced or special rates be given for any purpose this season. We must, therefore, most respectfully give a negative reply to your application for certain concessions from regular rates, for or on account of State Farmers' Union, to be held at San Francisco, April 9th.

Very respectfully,
T. H. GOODMAN,
General Passenger and Ticket Agent.

After the reading of other letters from various importers and manufacturers of sacks, the club adjourned to meet again Saturday, April 5th, at 1 o'clock.—*Stanislaus News.*

Meeting of April 5th.

J. D. Spencer, Jas. M. Henry, J. M. Henderson, G. B. Douglass and C. J. Cressey spoke of the State Farmers' Union, and urged co-operation with other clubs of the State.

J. M. Henderson offered a resolution to instruct the delegates of this club to the State Farmers' Union, to report a code of By-Laws for the government of an incorporation having for its object shipping, freighting, buying, selling or leasing grain, produce, stocks, sacks, vessels or real estate. Adopted. Moved, that, as we have increased in number since the election of delegates to State Farmers Union, we proceed to elect three additional ones, carried; and J. S. Bentley, G. B. Douglass, and W. H. Davis were so elected. F. C. St. Clair resigning as delegate, Mr. T. D. Harp was elected to fill vacancy; adjourned.

L. B. WALTHALL, Sec.

Farmers' Club of Grand Island.

This club held its regular meeting on the 2d inst. Wm. Ogden in the Chair. Wm. Ogden and W. A. Pollard were appointed delegates to the State Farmers' Club. The following was adopted:

Resolved, That in view of the fact that the *Colusa Sun*, in its last issue, contained an article commending our organization to the favorable notice of farmers, the club return a vote of thanks for said notice, and request the *Sun* to favor us with suggestions.

It was recommended that the State Club discuss the matter of procuring sacks, and see if arrangements can be made for procuring them at reduced rates, compared to last year.

The Committee appointed by the State Farmers' Club, to correspond with importers, reported that they had received propositions to furnish sacks to clubs at less than fifteen cents—which is certainly an inducement for farmers to co operate with our association. This is only one of the many advantages to be derived from our organization. This club meets every Wednesday evening, at Bridgeport.

The suggestion of the *Sun*, that a club be formed in Colusa, meets with our hearty endorsement. J. C. WILKINS, Secretary.

Colusa Sun.

Sonoma County Farmers' Club.

At a meeting of the Club on Saturday March 29th, Vice President Whitaker presided. The amendment to the section of the constitution in regard to membership, previously proposed, was adopted. It provides that in addition to the fee of one dollar required on joining, each member shall hereafter pay to the Treasurer seventy-five cents per quarter, or twenty-five cents per month.

A letter was read from the Secretary of the State Farmers' Union calling attention to the meeting to be held in San Francisco, April 9th, and requesting the Club to send delegates. The Club numbering sixty enrolled members, under the Constitution of the State Union, were found to be entitled to seven delegates, who were elected as follows: S. T. Coulter, James Fulton, James Pugh, W. H. Rector, President Holmes, John Adams and R. A. Thompson.

A communication was read from the Stanislaus Club enclosing a petition to Congress to repeal the duty on sack material. A resolution was passed authorizing the Secretary to attach the names of members of the Club to the petition.—*Sonoma Democrat.*

Salem, (Oregon) Farmers' Club.

Met at Legislative Hall, Salem, on March 15th, 1873.

The resolution discussed was the following: "Resolved that the present means of transportation do not meet the requirements of Western Oregon."

Mr. Minto read an essay upon the affirmative.

Mr. John P. Cole thought the means for the carrying trade were sufficient. The way to reduce the price of freight was to raise less grain, for we were destroying our soil, and would make ourselves poor by such a course. Farmers should encourage home manufactures, and grind their own wheat. Flour, wood, bacon, etc., should alone be exported.

The production of the State would not warrant rival lines in the carrying trade. Small flat bottomed boats, with small engines, should be run up the lesser streams, and carry freight to the main river, and then taken direct to Astoria or some other port on the Columbia, where large ships could load free from so much expense and time.

He was decidedly in favor of the farmers living among themselves as much as possible, and importing as few articles as necessity required. At the present time a farmer could hardly live. There was very little to be made farming. Farmers were too extravagant; many, if they made one dollar, would spend two. Farmers should keep out of debt; then no body could take advantage of them. In this way better prices could be obtained for farm products.

He thought the Willamette river ample for all transportation. The Ossge river, a creek compared with the Willamette, was so improved by wing-dams and other improvements that it did the carrying for a large population.

Mr. T. L. Davidson thought the railroad should be extended to Astoria; then there would be a fair competition in prices for freight by railroad and river; and as we had a railroad and were obliged to support it, we could support one to Astoria better than the little we had.

The causes of our hard times were attributable to various circumstances. The drain of the railroad, increase of taxes, too much importation, and the mines contributing almost nothing, were the principal causes of hard times. Our exports were chiefly wheat and wool, and for a series of years must be so.

He would differ with the gentlemen about raising wheat. Being a new country, we must raise something to export to obtain money enough to meet our importations, and not having manufactories enough for home production and home consumption, we must raise wheat and wool, or cease altogether to import articles we do not manufacture; and this being the case, the country must stand still or go down.

The main question to the Oregon farmer is to get a fair price for his produce. To do this, means must be used to ship our produce cheaper—to stop this shaving process of so many middlemen. Six middle-men are too many; two or three are enough. If moneyed men are willing to reciprocate with farmers in making fair profits, then there need be no clashing; but if moneyed power seeks to make more clear profit off the farmer than the farmer can make off the land, it only takes time to bring about a reform. The farmer really holds the key to all wealth, and by using the same judgement that speculators do, can help himself as well.

The club adjourned to meet at the Courthouse in Salem on the third Saturday in April.—*Willamette Farmer.*

San Joaquin Farmers' Club.

The Club met April 5th, Captain Thomas E. Ketchum, President, in the chair. Mr. Paulsell suggested that the subject of irrigation be taken up at the next meeting, and made a motion to that effect, which motion was carried.

A combined header and threaher was exhibited and its peculiar merits explained.

The matter of sending delegates to the State Farmers' Union was considered, and Mr. Paulsell nominated Mr. Phelps and Hon. Samuel Meyers as said delegates. Mr. Phelps nominated Mr. Beecher. Mr. Meyers addressed the club at some length on the propriety of sending delegates to the Union at all, and although he did not think it would amount to much, it might be well under the circumstances to have the club represented. Messrs. Phelps and Meyers declined to accept the nomination, and Mr. George W. Sperry was nominated. On motion Messrs. Beecher and Sperry were elected delegates to repreaent the club at the State Farmers' Union, at San Francisco, on the 9th of April.

Captain Ketchum stated to the club that he had been credibly informed that sacks could be made at half a cent apiece, and possibly it

would be well for farmers to purchase the material and make their own sacks.

Mr. Panlsell addressed the club at length, nrging the members to join the co-operative society in order the more effectually to protect themselves.

It was moved and seconded that the President of the club. Captain Ketchum, be authorized to wait upon Dr. Holden and arrange with him in disposing of pictures, etc., procured and placed in the hall of the old club. The motion was unanimously carried.—*Independent.*

Sutter County Farmers' Club.

Club met at Yuba City, Saturday, March 29th, Vice-President Chandler in the Chair. Secretary read proposition of Messrs. Kohler & McDougal of San Francisco, also a similar one from John T. Allment of Marysville, to manufacture grain sacks for the farmers of Sutter county at very low rates, enabling members of the Clnb to secnre sacks from three to five cents apiece cheaper than they otherwise would. On motion of Mr. Ohleyer the communications were placed on file and the subject matter deferred until after the Committee appointed to attend the State Union have time to report.

Articles of incorportion as amended were read and on motion adopted.

It appearing from the books of the Treasurer that the Club now nnmbers ninety-nine members, and as we are entitled to one delegate for every ten members and each fraction of ten exceeding five, we would be entitled to ten delegates, as there was only seven elected at a former meeting, on motion of Mr. Brophy the number was increased to ten by electing Henry Elmer, John McIllmoil and T. B. Hull, delegates.

The order voted at a former meeting to cover dues to the State Union was increased to $24 76, to correspond with the increased membership. Secretary gave notice that a meeting of the Directors of the Union would be called immediately after the adjournment of the Club.

Club adjonrned to Saturday, April 12.—*Sutter Banner.*

Agricultural Notes.

ALAMEDA.

Transcript, April 2: A Monster Mare.—California not only produces the biggest vegetables and humau babies on record but also the very largest and finest blooded stock of any State iu the Union. Yesterday admiring crowds inspected the magnificent proportions of a draft mare, which was on exhibition at Broadway Wharf. The animal was foaled at Lafayette, Contra Costa county, and is now five years of age. Her owner sent the brute to Warren & Tinkam, Broadway livery stable, she having been sold to Messrs. Brittan & Holbrook of San Francisco. She was taken over to the city by Mr. Tinkam on the steamer "Louise." This huge creature measures from the end of her nose to the end of her hind quarters nine feet and four inches and around the belly eight feet. She is eighteen hands high and weighs sixteen hundred and seventy pounds. She is valued at four hundred dollars.

The Crops.—I heard from Livermore, San Ramon and Amador valleys yesterday. It is said that the crops never looked better thau they do at the present time. A shower of rain would help some, but there is no suffering for the want of it. So says my informant, and he is a gentleman who is interested in the grain business and a very good judge of those matters. Robler.

BUTTE.

Enterprise, April 4: Rain.—On Wednesday we had a nice spring shower. Its beneficial results are already perceivable. Grain, grass and tree have received a new impulse, and so spring into life and progress that their growth is almost hourly observable.

Colusa.—From Charley Miller, who has just returned from a visit to our sister county, Colusa, we learn that the crops of that section are looking remarkably well and much in advance of our own. The people are all happy and enjoying themselves. Fetes and parties are daily entertainments and every outward appearance would indicate comfort, happiness and prosperity.

CALAVERAS COUNTY.

Citizen, April 5: April Showers.—After waiting several weeks, Dame Nature kindly consented to favor us with, what we greatly needed, a shower or two of rain. The grass in this section of the country was beginning to turn yellow, and fears were entertained that the crops would suffer in consequence of the drying wind and continued dry weather. However, these fears are now dissipated, and since the rain, Nature's *smiling* face is welcome.

CONTRA COSTA.

Ledger, April 5: The Crop.—The wheat crop in this vicinity is on the whole looking fine, though there are some pieces of late sown grain which will not mature without more rain. The light shower on Wednesday did but little good as a cold westerly wind succeeded it. Fears are expressed by many that unless more rain falls soon, the yield will not be nearly as large as has been anticipated, though there is much of the grain that will mature if no rain falls. It is not unusual to have copious showers in April and frequently in May, therefore with the present condition of the grain, which is not yet suffering, we see no particular cause for expressions of doubt or serious apprehensions of a failure of crops. Present indications are that the yield will be the largest ever known in this valley, though it is not to be supposed that every acre sown will be equally good.

HUMBOLDT.

Times, March 29: The past winter, taken as a whole, has been favorable to the farmers All those who had land to clear took advantage of the fine weather, and will be able to increase the amount of their crops this spring. Early sown grain looks finely, and from the present outlook everything promises a favorable season.

Hesperian Lodge of Good Templars in this place is in a very flourishing condition. Its membership now numbers eighty, and there is scarcely a week passes but there are from one to three members added to the list. The officers and members of the Lodge deserve great praise for their untiring efforts in the good cause, and their labors are being rewarded with much success.

Warm Weather.—For the greater portion of the week we have been favored with as pleasant weather as could be desired. Wednesday was, perhaps, the warmest day of the week, the mercury in the thermometer standing at 72 degrees in the shade, on the south side of the street, from 10 A. M., to half-past 3 P. M. Such weather will make the hearts of farmers glad.

LAKE.

Bee, April 5: Rain.—The fine, dry weather of the past month, if it continued much longer, would doubtless have proved injurious to growing crops throughout the State. Fortunately a change has occurred and a little rain has fallen this week. Sunday last was cloudy, with light showers. Wednesday more rain fell. A little longer continuance of such weather will be very beneficial to agricultural interests.

Fish for Clear Lake.—The experiment to stock Clear Lake with white fish from Lake Erie is under way. Two hundred and fifty thousand of the white fish eggs have arrived in good condition, and now are in process of hatching at the hatching house provided for them by the State, on Kelsey Creek. Large quantities of eggs of various kinds of fish are yet to be brought from the East, among them black bass, silver eels, Schuylkill catfish, perch, lobster and shad. The catfish will be placed in Clear Lake.

SONOMA.

Flag, April 3: Crops.—A drive through Dry Creek and Russian River Valley, above Healdsburg, a few days since, convinced us that these valleys would, this year, produce good crops, or at least, that the indications were as good as could be expected. There were evidence on every hand, however, that the soil has been weakened by successive grain crops, and too little attention paid to manuring. After awhile people will see the necessity of taking better care of their land. Nature has done all it can for this section of the State, but land, like human beings, needs rest.

Rain Fall near Gualala.—Thomas Porter, who owns a ranch about eight miles from the Coast, east of Gualala, hands us the rainfall as kept by him last season. Notwithstanding it shows nearly double the rain fall at this point, he assures us that his figures are accurate. The fall of water since October, summed up by months, is as follows:

Months.	Inches.
October	.37
November	5.13
December	10 6
January	4.89
February	8.57
March (including the 16th)	2.63
Total	32.15

Argus, April 5: Damaged by Frost.—We are informed that the frosts on Wednesday, Thursday and Friday nights, did serious damage to the vineyards in Sonoma Valley. The fruit was considerably advanced, and it is stated that in some localities it is so much injured that it is feared the crop will be a failure, while the vineyards have suffered to a greater or less extent. We are in hopes that the reports of the damages are exaggerated.

Frost.—We are informed by Road Overseer Barnes, of Vallejo Township, that a severe frost visited that dominion this morning. The grass was in places frozen stiff.

Butter.—No other county in the State produces half as much butter as Marin, and no county except Marin produces half as much as Sonoma. The two together produce more than all the other counties in the State. The present season has thus far been uncommonly favorable for this business. The first rains brought grass forward early in the winter, and feed has been good for the past two months.

MARIN.

Journal, April 3: The mild and equable climate enjoyed in San Rafael has the effect to attract many of those who are compelled by ill health to select favorable influences, and others who are so favored that they can choose a tarrying place wherever they list. In San Francisco, the regular summer winds have set in, and they will blow every day, with very little variation in force, until the approach of another rainy season, or winter. One hour from those wind swept streets lies the sheltered little retreat of San Rafael, with the protecting hights of Tamalpais between it and the sea, and a still nearer circle of flower-crowned hills holding the little town in their loving embrace. Here let us say, *en passant* that we are not absolutely free from breezes during the two first months of spring. Some people coming here, having been told that the air was always still, have felt disappointed. We believe the truth is, we are absolutely protected from the prevalent trade winds of summer, and these we feel in spring are greatly modified by our sheltered situation, and persons coming here not expecting complete immunity would never feel inconvenienced from the winds experienced.

NAPA.

Register, April 4: Alfalfa.—Rev. Geo. Clifford, has on his place adjoining town, one acre of alfalfa. It was sowed about the 10th of April, 1872—30 lbs. of seed to the acre. The ground is a sandy loam, and was overflowed during the flood of a year ago, the water remaining on it only a few hours. It was plowed twice and harrowed well preparatory to sowing.

The grass grew last summer about 15 inches high and was eaten down close by cows. This season one cow was fed from it; then another cow, and a sow with four pigs, the grass being cut for them; and still about half the acre has been cut for hay, making over a ton. Mr. C. thinks those who experiment with alfalfa, make a great mistake in not sowing thick enough.

April 5: Damaging Frost.—From all parts of the valley we learn that the nipping frost of Thursday and Friday nights, has done a great deal of damage to the fruit. Peaches, grapes and almonds, suffer more from its blighting effect.

St. Helena.—Ain't this terrible weather? Such cold, frosty nights, and disagreeable, windy days are not just to my liking, but I suppose I'll have to "accept the situation," and make the best of it. The late frosts have greatly damaged the fruits up this way, and our grape and fruit growers wear very long faces in consequence.

The Frost.—Reports still come to us of the extent of the damage done by the frost of Friday night. Mr. T. B. McClure and W. H. Baxter, who live a couple of miles southeast of town on the foothills, report their grapes and early fruit seriously damaged. Mr. Trubody, five miles up the valley, thinks his grapes not much injured because they had not been pruned; but his peaches are killed. High and low land seems to have fared alike.

NEVADA.

Republican, April 5: The Comer Fishery.—Mr. Frazier came down from Comer & Co.'s fishery this forenoon. Mr. F. has had charge of the fishery the past Winter. We learn from him that the fish of all grades have done finely during the Winter and but very few have died—probably not five per cent. The number of fish at the fishery are estimated and classified as follows: 1,000 five years old, weight from three to four pounds each; 20,000 two and a half years old, average weight one and one-fourth pounds; 100,000 twenty months old, average weight one-fourth pound; 250,000 nine months old. Total number at the fishery, 371,000. The owners of the fishery have met with such good success that they have considerably enlarged their hatching house and intend to secure spawn enough this coming Summer to hatch 1,000,000 fish.

Transcript, April 5: More Storms.—For two nights past the weather has been cold and frosty, and it is probable that the peach trees which are all in bloom have been injured by the frost. The days have been stormy. Yesterday the weather was a medley of rain, hail and snow, enough of the latter falling in the afternoon to cover the roofs of the houses.

PLACER.

Herald, April 5: Sample of Alfalfa.—Last week James Gotier, who resides on Bear river some eight miles northwest of here, brought us a single root and bunch of alfalfa, taken when it was just one year old. There were 111 distinct stalks from the same root, at a point five inches from the ground, and the root was 2¼ inches in circumference. The main branches had reached 22 inches in hight, and the root reached down part of the way to China. True, this stalk stood a little apart, near a ditch, and is not exactly a fair sample of the lot, which contains near an acre of splendid alfalfa. Last year the field was irrigated three times and yielded three crops, and now stands finely, though the hares and rabbits, after getting a taste of it, seem determined to eat nothing else, there being a hundred in the field at times. They destroyed much of it when young. Mr. Gotier is satisfied of its great value for hay and pasturage in this section of country.

SAN JOAQUIN.

Independent, April 3: Large Vineyard.—The vineyard now being planted by the Natoma Water and Mining Company, at Alder creek, near Folsom, Sacramento county, is to contain 150 acres, and will contain 70,000 vines — all of foreign varieties, principally White Muscat and Flame Tokay. The vines were all rooted at Taylor's Nursery, last season. They are being planted at the rate of 7,000 per day, eight feet apart. Between every twenty rows a roadway is left. The vineyard is alongside the Sacramento Valley Railroad, and extends about a mile in length, and is so situated that it can all be irrigated from a large reservoir at the upper end. The company have also planted 1,000 pear trees of choice varieties, and next season intend to plant 16,000 plum trees on a tract of land now being prepared near Willow creek.

Argus, April 5: Rain.—The country is now beginning to need rain very much, and the prospect for a copious supply at this writing quite flattering — the clouds hanging thickly overhead and a brisk breeze blowing. With a good rain within the next few days, an unusually large crop of grain throughout the valley will be ensured; but a continuance of dry weather throughout the month of April and crops will fall far below a paying standard in quantity.

SANTA BARBARA.

Press, April 5: Beautifully Green.—The hills and valleys, and even the mountain sides in many places to the summit are clad in a fine robe of the softest green. It rests the eye and does one good to gaze upon the sleeping hills and cañoned mountains through such an atmosphere as they are bathed in this first day of April, 1873.

Want Rain.—There is a very general demand for more rain. No crops are suffering yet, but in a week or two more the barley crop will be injured without additional rain.

SANTA CRUZ.

Pajaronian, April 3: Farming all over the Valley and among the foothills is progressing finely. Several fields of grain we noticed during a trip to Corralitos on Tuesday, is high enough to be formed into waves by the wind, and the land now being cultivated for summer crops looks finely. Trees, shrubbery and flowers beautify every farm and homestead, and in fact the whole valley is one beautiful mass of verdure, seldom ever witnessed before. We defy the Coast to produce a valley equal to the Pajaro in beauty of appearance, or which has a more flattering appearance of enormous crops of all kinds. Surely those who own land in this section may feel perfectly at ease regarding the future and their worldly propects generally.

Oranges.—We noticed a week or two ago, several splendid large oranges in the Central Hotel on green branches on which the leaves had not yet faded. They were brought from Campo Saco by Mrs. Syme. They were raised at the above place, and from the specimens mentioned, we should judge that extensive orchards will ere long be set out.

SUTTER.

Banner, April 5: The Frost.—Yesterday, the 2d of April, the wind blew fresh from the southeast, with strong indications of the rain that is beginning to be needed in this vicinity, and about four o'clock a few drops commenced falling, when the wind veered suddenly to the west, producing a shower of a few minutes duration, and drove the clouds rapidly toward the Sierra Nevadas; after which the sun shone clear and bright.

Such sudden changes at this time of the year are usually accompanied by lightning and thunder, but there was on this occasion no manifestations of electric disturbance. During the shower the temperature commenced falling, and continued to go down until towards morning it reached freezing. This morning, April 3d, the ground was literally covered with frost, and ice one-eighth of an inch in thickness had been produced on water in shallow vessels in exposed situations.

At sunrise all vegetation was literally bending under the weight of the frost and there seemed no hope that any plant that could possibly be injured by frost would survive the rising sun a single hour. What the effects of this frost may be on fruits other than grapes it is too soon to tell (10 o'clock April 3d); but the grape crop is seriously injured, the Mission variety perhaps less than any of those varieties known as "foreign." This calamity will give vine-growers an opportunity of testing or rather studying the comparative powers of recuperation existing in the varieties of grapes grown in the various parts of the State visited by the frost.

SANTA CLARA.

Advocate, April 5: Weather.—On Wednesday evening we were treated to a slight April shower, not sufficient rain falling, however, to be of any material benefit. A heavy frost followed the rain, and Thursday morning was clear and very chilly. Threatening clouds hovered over during the day, and a cool wind prevailed. On Friday we had several brisk showers during the day, which will materially assist the growing crops and benefit vegetation generally. The tops of the hills east of the city were capped with snow, and the atmosphere had a decidedly wintry feeling.

Gilroy.—Near the southern boundary of the county, thirty miles distant from San José, on the line of the Southern Pacific Railroad, is located the flourishing city of Gilroy, a place of nearly three thousand inhabitants. Gilroy was an unimportant village until the completion of the railroad to this point, when it sprung up as by magic, and shortly assumed a position in the county second only to that of San José. It is situated in the heart of a magnificent farming country, and possesses all the elements of growth and permanent prosperity.

YUBA.

Appeal, April 2: Grain Suffering.—Late sown grain is suffering for want of rain. The ground is rapidly drying and pinching out the tender blades of wheat and barley. Some of the farmers are moving to put rollers at work —to roll their fields and break the crust. Summer-fallowed grain, however, looks splendidly.

April 5: Another Severe Frost.—The orchards and vineyards adjoining the bottom lands of the Yuba and Feather rivers, suffered more or less damage by frost on Friday morning. Early grapes are reported to have suffered most, though it is hoped that the crop has not been totally destroyed. Other fruits have been bitten, but slightly. Another frost probably occurred this morning.

OREGON.

Oregonian, April 5: Further farming operations up the valley are suspended, and some of

[Continued on Page 236.]

The Prall Steam Pump.

In these days of progress, speed and invention, machinery must take the place of hand-power, wherever such a thing is possible, and we are continually replacing one piece of machinery with another, if the slightest improvement is manifest. This is especially the case with pumps, of which there are probably more varieties and modifications than in any other class of machinery, with the exception, perhaps, of washing machines. In each of these inventions we try to simplify as much as possible the complications of previous articles. With simplicity of construction we attain not only that desirable object, cheapness, but gain space, reduce friction and lessen the liability of the machine getting out of order. One of the late inventions in the line of steam-pumps, which shows a wonderful simplicity of construction and operation is called the Prall Automatic Steam-Condensing, Vacuum and Force Pump, a cut of which is shown on this page. We recently saw this pump in operation at the Pacific Iron Works on First street in this city, where it can be seen by those interested.

The cylinders are made of metal, lined with wood. Into the upper end of each of these cylinders a small steam pipe is led from the boiler, the pipe being opened and closed by a simple two way valve, shown where the covering is broken away in the accompanying cut. A flat plate is placed opposite the mouth of the steam-pipe in the top of the cylinders to deflect and diffuse the steam as it enters. To the bottom of the cylinders is connected a single suction-pipe. Simple check-valves are placed on both the suction and discharge-pipes to prevent a reflow of the water passing upward. The valve-chambers are constructed with face-plates, which admit of ready detachment, so as to admit of removing and replacing the valves. A small injection-pipe communicates from one cylinder to the other, through the valve chest and throws a jet of water into the steam as soon as it has driven the water out of the cylinder. A vacuum is thus formed which draws the water from the suction-pipe and again fills the cylinder.

The automatic movement of the steam-valve, which admits and shuts off steam at the proper moment, is produced by means of a diaphragm of rubber, or of thin elastic metal, and connected with the valve by a simple rod (shown in the cut). This diaphragm is placed between two disks, which are slightly dished on their inner sides to admit of a play or movement of the center of the diaphragm between them, equal to the extent of movement required in the valve. This diaphragm is connected to the cylinders by water channels moved by alternate pressure on each side, thus admitting steam to one cylinder by downward movement and to the other by upward. An air-valve is placed in the upper part of each cylinder, admitting a little air into the top of the cylinder whenever a vacuum is formed.

In the operation of pumps thus constructed the pressure of the water in the cylinder when filled, bearing against the diaphragm, will press it up against its upper plate. The movement communicated through the rod to the upper valve is sufficient to open the valve wide. If steam be now admitted through the steam pipe, it will pass through the valve at the upper end and entering the cylinder will be diffused by the plate placed under the opening, into a stratum of air upon the water. The stratum of air serves to prevent all agitation of the water by the steam when it enters, so that it will spread itself quietly and evenly over the entire surface and operate directly and as effectively as if upon the piston of an ordinary steam pump. The very thin film of air being instantly heated at the first contact of the steam, all further condensation of the latter is entirely prevented and the full pressure of the steam is brought to bear upon the water, to force it out of the pump through the discharge-pipe, noiselessly, and without friction, to any desired hight, in proportion to its initial pressure. When, however, the steam, in expelling the water from the cylinder, follows it into the discharge-pipe, it is partially condensed, and the pressure on the under side of the diaphragm is so far reduced as to cause the latter to move and close the steam valve, whilst sufficient water is simultaneously withdrawn from the injection-pipe to complete the entire condensation of the steam, and produce a vacuum which will cause the cylinder to promptly fill from the suction-pipe. As soon as the cylinder is filled, the diaphragm will again move under the pressure thereon, steam will again be admitted, and the operation of the pump thus repeated. One cylinder is being filled while the other is being emptied, so the flow is continuous, and no intermittent action is apparent.

In one of the simplest adaptations of the pump for operating with steam at a pressure of from one to five pounds, the delivery-pipes are arranged entirely beneath the pumping cylinder, so that the water may discharge by gravity alone, or with slight additional aid. The condensation of steam admitted at this low pressure will produce a vacuum which will cause the pump to fill, even when placed at a hight of 30 feet above the water, by means of atmospheric pressure, the admission of steam being sufficient to cause a rapid discharge of the water thus elevated. Very small pumps made to operate in this manner with a low pressure of steam are constructed specially for agricultural purposes, to be used by farmers and stock-raisers, in connection with the boilers and caldrons employed for steaming food for cattle, etc., thus enabling them with but a comparatively slight expenditure of fuel to raise all the water required for stock or irrigation.

As a mining pump it has a great advantage from the fact that there is no exhaust steam, the steam being condensed in the cylinders after it performs its work, so one of the great inconveniences of pumps in mines is removed. As there are no pistons, piston rods, stuffing-boxes, levers, cams, cranks or fly wheels it requires no lubrication, and is not liable to be affected by mud, sand or grit of any kind passing through it. With no moving parts, other than the valves, it is not likely to need repair, and as the water flows quickly in and out of the cylinder, it is noiseless in operation. The one we saw at work ran beautifully, there being no intermit-



tent action whatever. The simplicity of its construction and fewness of its parts are greatly in its favor, as it can be sold cheaply.

The pump requires a cubic foot of steam under a given boiler pressure to displace and elevate a cubic foot of water to a hight due that pressure, and every foot of steam does double duty—by exerting a pressure to force the water out of the cylinder and by creating through its condensation a vacuum, the pressure of the atmosphere is utilized in filling the cylinders. It only requires a pressure of from one to two pounds of steam to raise the water to an extreme hight of 30 feet, and for every foot of elevation above this point one-half pound of additional pressure is necessary. The pump is a model of simplicity in itself and it will repay any one interested in such things to go to the Pacific Iron Works and examine its operation. There is little doubt but that it will be extensively used in mining operations for the reasons above mentioned, and as it does not require an engineer to run it, being automatic, it can be applied in many places where steam-pumps have not before been used. Small sized pumps of this pattern are made for independent boiler feeders, and will operate to feed boilers automatically, slowly or rapidly at any pressure.

It is also adapted to raising large quantities of water for irrigating crops. By thus utilizing the condensing power of the steam, there can be no process by which water can be elevated at so little expense.

A company has been organized to manufacture this pump, with the following Board of Trustees: Ira P. Rankin, A. G. Stiles, R. F. Knox, Eugene N. Riotte and A. P. Brayton. The special manufacturing agency is at the Pacific Iron Works.

In Baker City, Oregon, everybody is a spiritual medium, and a stranger cannot go into a house without being knocked by flying tables and chairs, and being interviewed by the ghost of his grandmother.

A Lecture on Beet Sugar.

[Continued from last week.]

Delivered before the Oakland Farming, Horticultural and Industrial Club, March 28th, 1873, by PROF. A. F. W. PARTZ.

By whatever means the juice may have been obtained from the beets, the sugar it contains is always associated with a greater or smaller amount of substances which must be separated, as they would hinder its crystallization; and here chemistry enters into the operations. But some of those substances cannot be gotten rid of by chemical action, and from these the *sugar* has to be separated; they are made to remain in the syrup.

The first operation, to which the juice is subjected, is that known as "defecation." It is performed in deep circular pans each of which is provided with a steam jacket or steam coil and with a siphon-tube entering its side and terminating at the center of its rounded bottom. In these pans the juice is rapidly heated to from 180 to 185° F., in consequence of which the albumen coagulates. Milk of lime freshly made from very pure material is then poured into the juice and the mass is well stirred while the temperature is slowly raised until ebullition has ensued and the juice begins to rise, when the steam is shut off. The mass has now separated into a cohesive grey sheet of scum and clear juice, in which the sugar has become chemically combined with lime. The organic acids and phosphoric acid have entered into insoluble combinations; magnesia and the oxides of iron and manganese have become separated from the acids to which they were allied and been rendered insoluble, and a strong smell of ammonia reveals the decomposition of nitrogenous compounds. The juice is now drawn off through the siphon-tube before mentioned and passed into an upright cylinder resembling a steam boiler, which is called "monte-jus," and serves as a force pump. When the cylinder is filled with juice, steam is let into it at the top whereby the juice is forced from the bottom through a pipe into an apparatus situated at an elevated point of the establishment and in which the process of carbonation is next to be performed.

Meanwhile the scum remaining in the defecation pans is conveyed to an ingenious machine called a "filter-press," an explanation of which would be impossible without the aid of drawings, and even with their aid it would be difficult to make its operation understood. The machine itself requires to be inspected. Suffice it here to say that by its means the not inconsiderable quantity of juice mechanically retained in the scum is most thoroughly separated.

Returning to the juice forced from the "monte-jus," up into the carbonation vessel, it is to be remembered that the sugar it contains is chemically combined with lime, and the chief object of the following operation is to dissolve that combination. The object is accomplished by means of carbonic acid which, in forming an insoluble salt with the lime, sets the sugar free. The vessel in which the process is carried on, is furnished with a steam jacket or coil for heating, and a little above its bottom is placed a coiled pipe with a row of small perforations on its lower side. Through this pipe carbonic acid is forced into the juice, after the latter has been heated to boiling. The juice soon becomes cloudy on account of the formation of carbonate of lime, and scum rises to the surface. After saturation has taken place, the juice is once again boiled up and skimmed, and is then drawn off into a reservoir for settling. The carbonic acid used in this process is obtained from both the burning of coal and the heating thereby of limestone in a furnace especially designed for that purpose. The juice, though greatly improved, still contains a certain amount of lime in solution, besides salts of potash and soda, and other foreign matters. It is therefore subjected to a further purification by being passed through bone-coal filters. Bone-coal consists mainly of phosphate of lime; it farther contains carbonate of lime and 10 per cent. of carbon. The chemical effects which it is capable of producing, and among which is that of bleaching, are chiefly due to what is called action by contact. The filters are upright cylindrical vessels of sheet iron, from 16 to 20 feet high and from 3 to 4 feet in diameter, and several of them are placed in a row. They are filled with coarsely granulated bone-coal, which rests upon a perforated false bottom covered with cloth. There are two manholes, one on top and the other near the bottom; through the former the bone-coal is introduced and through the latter it is taken out when it is exhausted and requires to be revivified by fermentation, washing, and "roasting." At the bottom there is a discharge pipe, and below the upper manhole enters a pipe with such outer connections that through it either juice, steam or water may be let in. Provision is also made that from one filter the juice can be directly transferred to another filter. Prior to the introduction of juice, steam is forced through the bone-coal for the double purpose of removing air and other gasses from the pores of the coal and of heating the filter.

After filtration the juice is conveyed to an evaporator, which is heated by steam and connected with an air pump, whereby the atmospheric pressure is removed, while the vapors are absorbed by a condenser, so that the evaporation is effected at a temperature of about 165° F. When the juice has become concentrated to 28°—30° Baumè, it is again passed through the coal filter for a final purification and is then ready for the vacuum pan.

This apparatus, which has a capacity of from 5 to 10 tons, is a hollow sphere, having a steam pipe coiled in its lower half and often also a steam jacket underneath. On top it has a dome or short column from which a large pipe leads to a condenser, and this is made to communicate with a vacuum pump. The apparatus is provided with eye-holes covered with thick plates of glass, through which the operator can observe what is going on within. It is also furnished with a barometer and a thermometer, and has a peculiar attachment, by which the attendant is enabled to take out samples, without letting in air. In its bottom the apparatus has a valve operated by a lever for discharging its contents. After a vacuum has been produced, the juice is drawn in through a suction-pipe. The concentration of the juice in the vacuum-pan is an operation which requires great experience and the closest attention. It is now usually conducted in such a manner that the juice is not merely concentrated to the point of crystallization at cooling, but the greater portion of the sugar is, so to say, boiled into crystals, and it is surprising to what perfection this process has been brought. A competent operator can cause the sugar to form into crystals of almost any desired size, from that of an eighth of an inch downward. His greatest watchfulness is required near the termination of the process, for through a slight neglect the whole mass in the vacuum-pan may then suddenly solidify, and in that case there is no other help than to take the pan apart and go at the sugar with a chisel. When the boiling is completed, the bottom valve is opened and the saccharine mass let out, while air, and finally some steam are gradually admitted into the pan. The mass is of a brownish color and a mushy consistency, being a magma of sugar crystals and syrup. It is run into sheet-iron boxes provided with handles and holding as much as two men can carry. In these boxes it is left until the sugar still remaining dissolved in the syrup has also crystallized. The boxes, which now contain a semi-solid, pasty mass, are emptied upon a platform and the mass is broken up. It is then passed into a mashing machine, in which it is worked with syrup into a soft mush. This is now run into centrifugal machines, somewhat smaller in size than those used for the beet-nulp. In watching the operation you can see the dark brown color of the mush speedily become lighter, and upon the application of a spray of water, which removes the rest of the syrup without giving the sugar time to dissolve, the inner circumference of the machine soon assumes a white appearance. The workman now stops the machine and with a wooden scoop takes out the sugar, which is in a flocky, granular state, resembling freshly-fallen snow, and is ready for the market.

If it is intended to obtain the sugar in the form of loaves, the magma from the vacuum pan, instead of being run into boxes, is run into conical forms called "titters," which have tap-holes at their tips, from which, after complete crystallization has taken place, the syrup is allowed to drain off. The last portion of the syrup, which would otherwise be retained, leaving the sugar of a brown color, is removed by means of a concentrated solution of white sugar, called "washing-liquor," of which from time to time a certain quantity is poured upon the sugar in each "titter." In passing through the sugar it displaces the syrup, and its loosening uncolored from the tap-hole shows that the sugar has become white. The latter, which has now also become pretty firm, is taken from the "titters" and transferred to a kiln for drying. During the drainage, the "titters" must be kept in an even temperature of about 110° F. The whole operation, till the loaves are ready, lasts about two weeks.

The syrup which has been thrown off by centrifugal machines and which has drained from "titters" is refiltered and reboiled and made to furnish another lot of sugar of inferior grade. The syrup obtained from this is again refiltered and reboiled, furnishing third grade sugar, and the same process is still repeated once or twice until all the sugar that can be had has been secured. The syrup which finally remains, contains all those salts that could not be removed by lime and bone-coal, and being unfit for domestic use, it goes to a distillery to be converted into alcohol.

From what I have said it will be seen, that the making of beet sugar is no business for industrial pretenders or persons of superficial attainments, but that it demands men, thoroughly acquainted with all its numerous details and whose practical experience is based upon a sound foundation of theoretical knowledge.

The manufacture of beet sugar has had its third year's experience on this coast, and has proved a success. There is no reason to doubt that it will become one of the leading industries of this country, if our lawmakers will not allow themselves to be influenced by a powerful lobby, in the interest of refiners, to abolish or materially reduce the present tariff on colonial sugars. Such a measure would be a death-blow to the beet sugar enterprise—not because beet sugar can not compete with cane sugar, for in Europe it has been shown that it can, but because the young industry must first gain the necessary strength to be able to compete, and that strength it could not gain if it were crushed in its infancy. Were it not that Congress dare not disregard the cane sugar interest of Louisiana and the other Gulf States, it would be rather doubtful what might happen, for aside from possible corruptive influences, the confusion of ideas about protection and prohibition, which so often prevails in congressional debates on questions of national economy, gives little assurance against mischievous enactments.

A nation is strong, and prosperous, and independent, in proportion as it is able to supply its necessities from its own resources. Sugar has long ceased to be a mere article of luxury; it has become one of the necessaries of civilized life. Its consumption per capita is to some extent an index to civilization. The United States import 450 000 tons of sugar per annum, for which are paid about $80,000,000 to foreign countries, with which we have no adequate exchanges. Most of that money goes to Cuba. Our partial dependence on that little isle for a commodity like sugar might be quite severely felt if the emancipation of the Cuban slaves, an event perhaps near at hand, should be followed by similar results as the abolition of slavery upon the island of Jamaica, where the production of sugar suddenly decreased to 20 per cent. of what it had been. And might we not as well be independent of such contingencies? Might those $80,000,000 not as well be kept and made productive among our people? The quantity of sugar now imported could be obtained from 375,000 acres of our land, at the moderate estimate of a yield of 15 tons of beets per acre, and of 8 per cent. of their weight of sugar. For establishing the factories in which the beets from 375,000 acres could be worked, a smaller sum of money would be required than that now yearly sent for sugar out of the country. An industrial revolution like the one indicated can of course not be expected to be accomplished in a few years, but since the experience of Europe is our gain, it is reasonable to assume, that what was done there in 50 years might here be done in 20. May it be done.

Useful Information.

Transition Signs.

This style of sign is not very common, but it makes a very neat and showy advertisement for all branches of business, if made in good style. The way to make them is, first get the sign board made the dimensions required, with a projecting band or moulding around it, say about one and a half inches deep from the face of the board to the outside edge of the band or moulding; then cut into the band or moulding around the board, from the top to the bottom edges, grooves the width of a hand-saw, one inch apart; then insert strips of tin one inch wide, and long enough to reach from the top to the bottom of the sign board, including the band; thus covering the face of the board. When all are neatly fitted, take them all out, laying them down flat, with the edges close together, and paint on them any work, figure, or design required. Let them remain until perfectly dry, then turn them all over, keeping them in the same order as before, turning them over from right to left. Paint the surface of the board with any letters, picture, or designs required. Then paint on the strips of tin, on the reverse side from that previously painted, still another word, or design, and when dry, slide the strips of tin in the same order in which they lay, into the grooves on the sign. The sign is now completed, and has a very magical effect to those passing by, changing from one word or design to another, and makes the very best, cheapest, and most attractive sign that can be got up. It is not expensive, and only requires a little ingenuity to construct one.—*Cabinet Maker.*

A Cheap Paint.—We have not much faith in any of the so-called cheap paints recommended for outbuildings. Common whitewash with yellow ochre, or some other mineral substance for giving the required color, may in some instances prevent the decay of wood, and add something to the appearance of the buildings upon which it is used; but white lead and linseed-oil make the cheapest and best paint in the end, although costing a little more at the beginning.

But as a subscriber asks for a recipe for making a cheap paint for outbuildings, we comply with his request by giving one that has considerable popularity among gardeners:

Pulverize charcoal in any quantity desired, add a little litharge as a drier, mix with raw linseed-oil, adding a little boiled oil when applied. This will make a black paint, but by adding yellow ochre, a peculiar shade of green may be produced. Other mineral substances may be added if desirable.

Testing Gold Used in Gilding.—P. Gnyot proposes for this purpose the use of a solution of chloride of gold or a solution of nitrate of silver. Neither affects at all the genuine gilding, but imitations, when touched with the former solution, show a brown spot, and with the latter, a gray spot. The gilt designs of wall papers are examined by Guyot with chloride of sulphur. One drop of this salt, placed on imitation gold paper, produces a dark brown rim, which does not appear when gold has been used. Thin gold leaves, if placed with chloride of sulphur in closed bottles and well shaken, show no change, but alloys of base metals gradually blacken. If the gold is placed in hermetically closed bottles under a slight aerostatic pressure, it will disappear in a short time and combine with the chlorine to form chloride of gold.

An Unpleasant Suggestion—A Possible Calamity.—The New York *World* asks: In case of a fire stretching suddenly across Manhattan Island, and then sweeping rapidly toward the Battery, what would become of the people south of where the conflagration originated? Where would they go? How would they get away? Could a sufficient number of steam-boats approach near enough to such a fire to rescue them all? If not, the tragedy of the Fifth Avenue Hotel, fearful as it was, would be but a feeble illustration of a spectacle which the most distant parts of the civilized world would not cease for centuries to remember with horror.

A Rock Crystal Watch.—One of the curiosities of the Vienna Exhibition will be a watch made entirely of rock crystal. Many years since, a workman in a French manufactory decided to make a watch, every part of which, the main-spring alone excepted, should be of rock crystal, and after thirty years labor accomplished his task. All the pieces of the watch are fastened by rock crystal screws, and the escapement is most intricate. His widow would never part with it; but when she died, the treasure fell into the hands of a French watchmaker, who intends to exhibit it as a sample of French workmanship, pricing it at $2,000.

To Delay the "Setting" of Plaster of Paris.—In many cases the rapid consolidation of plaster of Paris is a serious inconvenience, but it is said in a French journal that this difficulty in its employment may be remedied by the addition of from two to four per cent. of the root of marsh mallow, finely powdered. With this treatment the plaster, it is stated, will not set for an hour at least.

Carpet Manufacture in Philadelphia.—The carpet interest in Philadelphia has reached enormous proportions, and is still rapidly increasing. There are about 250 manufactories, which employ, on an average, about 50 operatives each. The number of looms is estimated at 8 000, from which 800 000 yards of ingrain, damask, Venetian, two and three-ply carpets are turned out weekly. The number of yards manufactured annually has averaged 41,-600.000. The amount of capital invested is $3,000,000. The carpets made here have gained the widest and highest celebrity for fine, wearable texture and handsome designs.

A Happy Thought.—Willis Williams, of Islesboro, Me., was recently out on the ice hunting seagulls, when an accidental discharge of his fowling piece wounded him so badly in the thigh that he could not walk. He smeared the dog's face with blood and told him to go home, which the sagacious animal did, and by signs and the blood alarmed the family, who followed him to the place where the young man was lying. The hint may be worth remembering by our friends of the Nimrod persuasion.

Making Paper Stick to Whitewashed Walls.—Making a sizing of common glue and water, of the consistency of linseed oil, and apply with whitewash or other brush to the wall, taking care to go over every part, and especially top and bottom. Apply the paper in the ordinary way.

Stanford Eclipsed.—It is estimated that nearly one-third of the railroads of the United States are under the control of a few individuals in one corporation, called the Pennsylvania Railroad Company, of which Thomas Scott is king.

Good Health.

Hints in Regard to the Eye.

The sculptor Crawford was accustomed all his life time to read lying down. To this, very largely, the physicians attribute the loss of his eye. Very soon a cancer formed in the other, which caused his death.

The great historian Prescott lost his eye-sight when a student by a bit of bread thrown in sport by a fellow-student at the table. A pair of scissors or a fork thrown in sport or anger, has caused the loss of an eye, which the wealth of the world can not replace. A friend who was very ambitious to finish a set of linen for her brothers, spent almost a winter in the stitching, sitting up often late at night over the work, in which she took great delight. The result was, the nerve of the eye was so injured that she was obliged wholly to give up sewing, knitting and reading, under penalty of becoming perfectly blind.

A young lady, who lived but ten miles by train from school, used to spend the time in studying a certain lesson while she was riding down in the morning. The result was a severe affection of the eyes, which disabled her from study for a long time. It is always hurtful to the eyes to read in the train, though we may not see the effect so plainly when it happens only occasionally. A steady practice like this, young ladys, may produce even worse results when the system is in a bad state.

Never read by twilight, nor before eating in the morning. The little you gain in time will be doubly lost before life's sundown.

I know a young clergyman who is a remarkably well-bred man, but whose eyes are a perfect deformity. He said he ruined them by reading at night, long and intently, when he was getting his education. He seems to have no control of the lids, which twitch and move in a most grotesque manner. Don't fancy you can do what you please with your eyes, and yet have them serve you faithfully. Take good care of them as you would of gold, for gold can never replace lost eyesight.

A Remedy for Croup.

We have been interested in reading the following statement made to us by an intelligent mother. We give our readers the benefit of it, or at least give them the opportunity to test whether it has any benefit.

A remedy for croup was given me by a sister who heard it from Prof. Bronson, a physiological lecturer since deceased.

"Let a healthy person fill his lungs with pure air, then slowly breathe upon the patient's throat and chest, commencing at the point of the chin, and moving slowly down to the bottom of the wind-pipe. Repeat for a few minutes and it will give relief in cases when all other means fail."

My boy was always subject to croup; came near dying with the rattling noisy kind, at about eleven months old. I sweet him with water and ever after prevented a serious attack by watchfulness and water. But when three years old, I let him play in the brook one warm rainy day, and he took a severe cold and had a stubkind of croup, the first and last time he ever had it. In spite of all I could do he grew constantly worse until he could only gasp and breathe with his head thrown back. We thought his last moments had come, when I thought of, and tried Bronson's remedy for a minute. When I stopped he looked up and said: "Do so again, mother, do." though he could not speak when I began. You may be assured that I did so again, and I believe it saved his life.—*Laws of Life.*

A New and Dangerous Poison.—A Baltimore physician says that the new medical compound, known as "xylol," is now being largely used in that city as a means to facilitate robbery and murder. He says that a person may be rendered powerless by its use so that the burglar can go through the house and take all he wants. If necessity require it, the burglar can xylol his victim out of this world into the spirit land in an incredibly short space of time. The mode of application is by mixing it with the feathers in a pillow, and when the warmth of the head is applied to it, it gives off vapors similar in effect to the fumes of charcoal, and the person using it is found dead in the morning, which gives the monsters who apply the drug ample opportunity to possess themselves of the property of their victims, and to dispose of their remains.

He says the drug was tried upon himself some time ago by a German Jew, who invited him to sleep in his house. He escaped his foul designs, by obtainining knowledge of his intentions and manner of proceeding, by trifling circumstances, the details of which are not given. He thinks that many of the late cases of "mysterious disappearance" may reasonably be attributable to the cause.

Fat and Lean.—Meat eaters and vegetarians show in their persons the effects of the diet. The first has the most brain force and nervous energy. A mixed food of animal and vegetable rations develops the highest intellectual powers. A strictly vegetable living ordinarily gives a fair complexion, and amiability and extreme pugnacity when the vegetarian's views in regard to that one engrossing thought of his life are discussed. They are annual meeting reformers, without ever setting the river on fire. Arabs are a sober, frugal race, rather slender, not tall, conscientious and contentious on religious subjects. They largely subsist on rice, pulse, milk and keimac, something similar to whipped cream, through a vast region of an arid country where they are indigenous. They are not destitute of mutton, goats, camels and game; but they manifest no disposition to feed upon meats, as is necessary in temperate zones or in high northern latitudes. An intellectual man, one of their kindred, who rises to distinction by the grandness of his mental status, is exceedingly rare. The beer and ale drinkers expand and grow fat, but they are not much given to profound researches in science.

Arrangement of Houses.—Much in the way of good health depends on the proper arrangement of our houses—The *American Builder* says: "Do not arrange your house so as to violate God's first command. Give it many windows, and then, O housewife, keep your blinds open during the day and your curtains drawn aside. If you let the sun in freely, it may fade your carpets, but if you do not it will be sure to cause ill health to the mother and children. The sun is a good physician. He has never had due credit for his curative qualities—for the bright eyes and rosy cheeks that come from his healing bath. Do you know how puny is the growth of a potato vine along the darkened cellar wall? Such is the health of human beings living where the sun is intercepted by the window's drapery. So dark wall-paper is not only gloomy, but it is physically unwholesome. Let in the sun, for with it comes cheerfulness and strength! A dark room is an enemy of good health, good temper and good morals."

Is Inebriety on the Increase?—In a late number of the *Contemporary Review*, Herbert Spencer combats the idea that inebriety is on the increase. He describes the time when men took drugs to increase their desire for wine; when glasses were so shaped that they had to be held until emptied; when a man was reckoned as a "two-bottle man," a "three-bottle man," etc.; and when (Mr. Spencer might have added) one of the first of Scottish nobles employed a domestic whose sole duty it was to sit under the table and loosen the neck-cloths of the guests as they fell from their chairs, in order that they might not suffocate in their drunken sleep. Intoxication used to be a mark of honor. It is now a disgrace. Education has driven the evil from one class after another. It is now almost exclusively confined to the lowest. As Mr. Spencer says, the remedy for it in England is not a "Maine-law," but the introduction of the education that has banned it elsewhere.

Better than Medicine.—Dr. Hall says the best medicine in the world, more efficent in the cure of disease than all the potencies of the materia medica, are warmth, rest, cleanliness and pure air. Some persons make it a virtue to brave disease, "to keep up" as long as they can move a foot or crook a finger, and it sometimes succeeds; but in others, the powers of life are thereby so completely exhausted that the system has lost ability to recuperate, and typhoid fever sets in and carries the patient to a premature grave. Whenever walking, or work is an effort, a warm bed and cool room are the very first indispensables to a sure and speedy recovery. Instinct leads all beasts and birds to quiet-ude and rest the very moment disease or wounds assail the system.

Tobacco-Smoking.—A German physiologist has discovered that tobacco-smoking by the boys "interferes with the molecular changes coincident with the development of tissues, and makes the blood corpuscles oval and irregular at the edge." Any parent can thus ascertain if his boy smokes by merely taking out a handful of his blood corpuscles and observing their edges.

Domestic Economy.

German Prejudice Against Potatoes.

There exists in Germany a decided prejudice against potatoes, because they are composed of three-fourths water, with but ten to fifteen per cent. starch contained in indigestible cells. The French, who make a perfect science of the whole business of nourishment and cookery, rarely eat potatoes except occasionly fried for the second breakfast. They consume beans more than any other vegetables and with reason, for dried beans contain twenty-two per cent. albumen and fifty of starch, and the common lentils twenty-six per cent. of albumen and fifty-six of starch. In the monasteries of France and Italy great quantities of beans are used, especially during the Lenten season. German naturalists are now searching all over the world for a substitute for potatoes, and this is believed to have been found in China in the "dioscorea japonica," which endures the greatest cold and is more nourishing and better flavored than the potato. In the Museum of Natural History at Paris, a specimen three feet long and weighing three pounds was exhibited.

Several German writers upon races, predict that nations, far from improving, will deteriorate both in physical and mental characteristics, if potatoes become a principal article of diet. The celebrated Carl Voight says "that the nourishing potatoe does not restore the wasted tissues, but makes our proletariats physically and mentally weak!" The Holland physiologist Mulder gives the same judgment, when he declares "that the excessive use of potatoes among the poorer classes, and coffee and tea by the higher ranks, is the cause of the indolence of nations." Leidenfrost maintains that the revolutions of the last three centuries have been caused by the changed nourishment. In former days, the lowest workmen ate more flesh than now, when the cheap potato forms his principal subsistence, but gives him no muscular or nervous strength.

Roast Turkey.

Select a fine, plump, yellow skinned turkey, weighing from ten to twelve pounds. Examine it thoroughly to see that all the pin feathers are taken out; hold it over a blaze to singe any fine hairs that may remain; wash it thoroughly inside and out, and rub it over with salt. Take the gizzard, heart, and liver, put them in cold water, and let them boil until tender. When done, chop them very fine. Take stale bread, or the large Boston crackers, and grate or chop them. Add salt, pepper, and some sweet herb if liked, to the bread crumbs; after which beat two eggs with which to moisten the crumbs; add and mix thoroughly with this the chopped "inward," not forgetting to put in salt and butter. Fill the inside of the turkey with the dressing, taking care that the neck or crop is made to look plump, and sew the openings, drawing the sides tightly together. Then rub a little butter over your turkey, and lay it upon the grate of your pan. Cover the bottom of the pan with boiling water. After a half hour baste the turkey by pouring over it the gravy that has begun to form in the pan. Repeat the basting once in about fifteen minutes. In an oven of average temperature a twelve-pound turkey will require at least three hours; but every oven has its own way of baking, and the cook must be governed by it.

Roast goose is to be prepared in the same manner as the turkey. The dressing should be made of mashed potatoes, seasoned with salt, pepper and sage, or onions, if according to the taste of the family. Make giblet sauce by boiling the "inwards" until very tender, chopping them fine, and adding them to a gravy made by using the liquor in which they were boiled thickened with flour, and to which has been added one ounce of butter, and pepper and salt to suit the taste.

Dangerous Diets.—The frequent failure of the potato crop in England and Ireland is likely to bring about an epidemic of scurvy, unless the public can be better informed of the requirements of an antiscorbutic diet. The fact therefore, cannot be too widely made known, in fact, whether we are suffering under the failure of this important crop or not, that peas, pudding, harricot beans and boiled rice, which have been suggested as substitutes for potatoes, will not prevent the occurrence of scurvy. In the absence of the potato, an excellent antiscorbutic, fresh green vegetables or fruits will be requisite, or the health will fail, even though fresh meat be taken. Amongst the vegetable material which may be used, are the various forms of cabbage, lettuce, oranges, lemons, onions, mustard, cress, dandelion and sorrel. The experience of the crews of vessels on long voyages has shown, over and over again, the uselessness of the pea and bean tribe in preventing scurvy.

To Make Pop Corn Balls.—While popping your corn put some syrup on the stove, the nicer the better, and boil it down quite thick. Put your corn while hot in a dish pan, or any large vessel convenient, pour the syrup over it and stir it well with a spoon. It only needs enough to make the corn stick together. Butter your fingers and make up the balls quickly any size you wish. Lay on a plate until cool, and they are nice.

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SAN FRANCISCO:

Saturday, April 12, 1873.

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The Vineyard.

An important consideration in the management of a vineyard is, that the ground should not be disturbed after the leaves have expanded while the foliage is wet with dew or rain, as the raising of the dust at such times, closes the breathing valves of the leaves and stops respiration.

The growing of crops of grain or vegetables in young vineyards is a reprehensible practice, as it exhausts the moisture required for the vine and introduces myriads of insects, which deposit their larvæ on the vines as they remain green after the vegetables are dried up, and consequently are the natural refuge for them when driven from their first habitation.

The practice of planting live willow fences around vineyards is one that should be equally discouraged. The willow being the prolific habitation of the cut worm and numberless tribes of creeping and vineyard insects, all detrimental to the vine. On examining the leaves of willow and cottonwood trees, there may be discovered great numbers of small balls growing upon them. These balls all have more or less larvæ enclosed, or moths incubated and in progress of escape. No broad-leaved vegetation or weeds of any description should be allowed a root hold in any vineyard, either early or late in the season.

WE would call attention to an advertisement of land for sale in Lake county. A valuable tract we are told.

Irrigation Will be Extended.

Because some one told a certain public speaker—and he knew nothing about it till he was told—and he told it to the public, that fruit trees could be grown without irrigation as well in California as elsewhere, a perfect storm of "I always knew it," and "I told you so," was heard from every quarter of the State, and nearly every man who had a bearing fruit tree, seemed to have suddenly discovered that it had been grown and was productive without irrigation, hence the declaration of a contemporary, that "irrigation is worse than useless."

But it seems there is something more of irrigation, as affecting the agriculture of California or indeed of any country, than just merely pouring a bucket of water round a tree. Irrigation we admit, is not needed in localities when the soil is sufficiently moist to grow trees or field crops without it; but there are millions of acres of rich lands back from the moist alluviums of our valleys, that can only be made available to their fullest capacity of production, by a judicious and abundant irrigation.

All our great valleys, through which streams meander, will sooner or later be brought under, systems of irrigation so important to the welfare of communities, as to be governed and regulated by the laws of the land, enacted for this especial purpose. Not alone will the benefits of irrigation be felt in the plains and valleys, but along the great ranges of the foothills of the Sierras, countless acres that are now but little else than arid solitudes, from June to December, will yet be made the recipients of fertile waters from the innumerable cañons of the mountains, that instead of bearing away the soil from golden placers, will be made to contribute to the powers of vegetable production, starting into life and clothing with a living green of grass and vine and tree, the countless acres of future mountain homes.

The miner having laid down the pick, will take up the pruning knife; whilst the reiterated exclamation, "I am going home" will refer only to yonder vine-clad hill-side and its cottage of loved ones. Even *gold* when compared with the benefits which California is yet to derive from irrigation, is as dross. Capitalists are already turning their attention to this subject, as one deserving their careful consideration, quite beyond what the Spring Valley Water Company is doing towards irrigating the stomachs of San Franciscans.

Bay District Horticultural Society.

The annual spring exhibition of the Bay District Horticultural Society of California will open on Thursday, May 1st, and close on Saturday, May 10th, 1873, at Horticultural Hall, S. F., corner of Post and Stockton streets.

We learn that this exhibition will be more particularly a display of much that is beautiful and gorgeous in the floral world, numbers of our most celebrated florists and amateur culturists having signified their willingness to contribute largely from their lists of rare and choicest plants and flowers. It will doubtless prove an exhibition worthy of our unequalled climate, and a credit to those having it in charge.

Articles offered for competition according to premium lists, must be entered on or before Tuesday, April 29th, and delivered before 12 o'clock, on Thursday, May 1st. Cut flowers and bouquets, under class III and IV, — see rules and regulations—must be delivered at 12 o'clock, noon, of Saturday, May 3d.

An extensive premium list, with liberal offers of award, are made by the Society, which can hardly fail to call out a lively competition among the more noted of our numerous florists. Over one hundred dollars in prizes will be awarded to children, who will exhibit.

THE Calaveras *Chronicle* cannot recollect a time for several years when business in that section was so lively as it is at present. The revival of quartz and gravel mining has a beneficial effect on all industries.

SPECIMEN APPLES.—We have received a box of choice apples of three or four varieties from J. A. H., who received them from M. H., a ranchman and doubtless, fruit-grower, near Colfax, Cal., excellent, and evidently good keepers. Thanks.

Farmers' Union Meeting.

The State Union met in convention at 3 P. M., April 9th.

The President not being present at the moment of the assembling of delegates, President Gilman of the State University being called upon, addressed the Union with interesting and highly appropriate remarks, as connecting the University with the agricultural interests of the State.

Pres. Gilman was followed by Prof. Carr, in a few felicitous remarks. President Bidwell appearing, took the chair, and on opening the convention, addressed the delegates in an earnest and business like manner. The address was listened to with profound attention by as fine a body of men as ever meet in convention in this State, and on whom the address evidently produced a most favorable impression. We shall give the address in extenso next week.

A committee was then appointed to examine and report upon credentials of delegates present. The report was as follows:

OAKLAND FARMING, HORTICULTURAL AND INDUSTRIAL CLUB—Delegates—Mrs. J. P. Moore, Dr. E. S. Carr, Messrs. J. V. Webster, C. Bagge, C. H. Dwinelle; number of members, 47.

COLUSA COUNTY GRAND ISLAND CLUB.—Wm. Ogden; members, 14.

CONTRA COSTA COUNTY POINT OF TIMBER CLUB—J. E. W. Carey, R. G. Dean, T. Murphy, J. H. Baldwin; members, 40.

CONTRA COSTA CLUB—G. P. Loucks, J. Larkey, P. Gregory L. G. Fish, N. Jones; members, 46.

DANVILLE CLUB—R. O. Baldwin, Geo. McCamby; members, 25.

MERCED COUNTY CLUB—H. B. Jolley, R. S. Clay, W. W. Gray, M. D. Awater; members; 40.

SONOMA AND MARINE CLUB OF PETALUMA—L W. Walker, C. S. Gibson: 40.

MONTEREY COUNTY CLUB—T. S. Hawkins, R. Ruckledge, G. S. Nash, L. B. Lathrop, J. D. Fowler, M. Pomeroy; members, 60.

NAPA COUNTY CLUB—Wm. A. Fisher, D. Gridley, P. Kilburn, J. M. Thompson; members, 40.

STANISLAUS COUNTY CLUB—R. R. Warder, J. Murphy, J. R. Briggs, Theodore Turner, W. B. Wood, C. S. Cressey, L. Dickey, L. B. Walthall, J. W. A Wright, R B. Smith, T. S. Bentley, G. M Douglass, W. H. Davis, T. D. Harp, James McHenry, proxy for Theodore Turner; members, 138.

BRANCH CLUB—E. A. H. Gallup, W. C. Crow, Joseph Dominicie.

SUTTER COUNTY CLUB—W. P. Harkey, A. L. Chandler, S. E. Wilson, B. F. Walton, Geo. Obleyer, J. H. Kimbal, G. F. Starr, H. Elmer, J. McIlmoil, T. B. Hall; members, 99.

SAN JOAQUIN COUNTY CLUB—J. L. Beecher.

WEST SAN JOAQUIN CLUB—W. B. Hay.

SANTA CRUZ COUNTY CLUB—D. C. Felley, B. Cahoon, V. Humphrey.

BUTTE COUNTY CLUB—J. F. Gaggard, M. Barnes, J. F. Martin, E Hallett, J. R Bennet, F. C. Lusk, G. W. Colby, H. York, H. Bay.

SACRAMENTO COUNTY CLUB—W. S. Manlove, E. F. Aiken, C. W. Hoit, J. R. Johnston, J. H. McKune, Amos Adams, R. J. Lockell, H. M. La Rue; members, 80.

SONOMA COUNTY CLUB — H. P. Holmes, J. Fulton, W. Rector, J. Pugh, J. Adams, S. T. Coulter, R. A. Thompson; members, 65.

SOLANO COUNTY DIXON CLUB — J. C. Merrifield, H. Rahwer, I. S. Garnet, S. G. McMahan, J. M. Dudley, J. B. Bloom; members, 58.

VACAVILLE AND PLEASANT VALLEY FRUIT ASSOCIATION.—T. H. Hyatt, George K. Miller, Mrs. E. S. Carr; members, 36.

Various committees were next appointed to report business for the action of the Convention and just before our going to press adjourned to 9 o'clock to-morrow, Thursday.

Cheese and its Keeping.

We believe it is an undisputed fact that there are some persons in the world who prefer to eat "skipper" cheese in preference to the best fresh article. There is really no accounting for the taste of such persons. Like the "peas" pudding we have all read about in our nursery rhymes.

"Some like it hot,
Some like it cold,
Some like it in the pot,
Nine days old."

For our part give us fresh pudding hot, and sweet aromatic cheese, not too fresh and not too old—old cheese is apt to be strong, frequently rancid, and to persons with delicate stomachs, not fit to eat.

It has been so seldom heretofore that we could find a cheese exactly suited to our taste that it could not be considered as a part of our daily diet, but if Mr. E. T. Slight of Gilroy, can produce (as he claims to be able to do, and as the sample sent us seems to justify him in claiming) cheese perfectly sweet and palatable, no difference what length of time it may be kept, this difficulty will be entirely avoided. Mr. Slight has applied through the SCIENTIFIC PRESS Patent Agency for a patent on his process for preserving cheese, which consists in hermetically sealing each cheese in its wrapping by varnishing the wrapper after it is put on the cheese, so that the cheese can be kept an indefinite length of time without becoming strong or rancid. The sample sent to this office was put up over a year ago, yet it has the appearance and taste of a recently made cheese—we never ate better.

Camellia Japonica.

EDITORS RURAL PRESS:—Please gratify one of your subscribers, by answering through the PACIFIC RURAL, how the Camellia Japonica is best, or generally, propagated. Why they are grafted, and on what stock, and why on that stock? Of what country they are a native, and how far north they may be grown in the open air, also how many varieties of plants bear the name *Japonica*. B. G.

Auburn, April 6th, 1873.

The above letter of inquiry presents us with a good opportunity of giving a short history of the Camellia. It is named after Father Camelli the Jesuit. It is a genus of plants, of 10 or 12 species, peculiar to south Asia. They are a lofty evergreen shrub, with large beautiful flowers, varying from white to red and rose color.

The principal species is the Camellia Japonica, a native of Japan, and introduced into Europe, by Camelli in 1739. For many years it was only found in the gardens of the curious or scientific botanist. Now it is cultivated all over North America and Europe with as great ardor as the rose or dahlia. Numerous varieties have been produced, till now not less than 1,500 are known.

The Camellia is usually propogated from cuttings; because there is a single flowered variety that is esteemed as particularly hardy, at the same time that it strikes or grows readily from cuttings; and because they are strong and thrifty growers, are used to grow the more delicate varieties upon. New varieties must be raised from seed. The camellia will not stand, uninjured, severe cold, but mild frosts, or freezing does not usually destroy it.

The Age of Steel.

The remarkable progress in the manufacture of steel bids fair to be equalled by the rapid production of cast-steel castings, adapted to many uses where iron is now wholly employed. The first attempt to make a plowshare from the crucibles was a failure. This can no longer be said, for the Pittsburg Steel Works Company, of which J. G. Kittredge & Co., of this city, are agents, are now manufacturing all kinds of bevel cog-wheels, cast true to the pitch-line, showing sharper courses, and said to be in every respect equal to the best iron castings ever made.

When subjected to severe tests from hammers, which would shatter iron wheels of similar dimensions, these were unscathed. At their works they also manufacture light articles, such as six-ounce wrenches, which, when taken from the moulds, are as clean and sharp as malleable iron castings; the number and character of light castings is without limit. They guarantee the pick manufactured by them to stand more service than any thing in the market, and also pay special attention to the manufacture of steel shoes and dies for quartz crushing. From the certificates shown us from several mills where they have been tested on this Coast, they appear to give entire satisfaction. At the low prices at which these castings are furnished, they must be of benefit to the mining interest, for anything which tends to reduce the cost of reduction of ores will be in great demand on this Coast.

When the cost of freight is taken into consideration together with the saving of time in changing shoes and dies, and the length of time the steel ones wear, the difference in them will no doubt be very great. It is claimed that the steel shoes and dies have a greater crushing capacity as they always maintain a full surface.

FILLING UP.—The Visalia *Delta* speaks flatteringly of the rapid growth and population of Visalia and certain other portions of Tulare county. A number of thrifty settlers have lately located on the lower Tule River, made improvements and put in crops. The country along the line of the railroad and the lake shore is rapidly gaining in population, the settlers being, as the *Delta* says, of the better class, industrious and frugal. Tulare county is gaining more rapidly than most of the counties of the southeastern part of the State.

HORTICULTURE.

The Medlar—Mespilus Germanica—or Dutch Medlar.

This is the sort which is much cultivated in Europe for its fruit, which ripens toward the latter part of summer, and is hard until kept till fall or winter, in order to expose it to be acted upon by frost and air, when it becomes soft and edible, and although it would be considered, perhaps, peculiar in its flavor by the majority of persons, is much relished by many. It is semi-globular in shape, that is, flat at the top, and of a lightish brown color, and contains hard seeds. It has a hay-tree leaf which is not sawed on its edges. The tree never rises with an upright stalk, but sends out crooked deformed branches at a small hight from the ground; the leaves are large, entire, and downy on their under side. The flowers are very large, as is also the fruit, which is round, and approaches near to the shape of an apple. This being the largest of the species is cultivated generally in the gardens in Europe; but there is a kind with smaller fruit which is called in England the Nottingham Medlar, of a much quicker and more poignant taste than the above, and is supposed to be only a variety. All the kinds will take by budding or grafting upon each other; they can also be propogated on the quince or pear stocks, and both these will succeed upon the Medlars, so that these have a great affinity for each other, and might be with more propriety brought together under the same genus than the pear and apple, which will not take upon each other; but although the pear can be worked upon the white-thorn *(Cratægus)*, yet it is not advisable to make use of the stocks, because they generally cause the fruit to be small, and often to crack, and render their flesh stony or gritty.

Mr. Gillet of Nevada City, we hear, has some Medlar trees which have borne some fruit there. He thinks they would be more prolific on the Southern coast. We do not see why this should be, as the Medlar flourishes well in the cool climate of England. It ought to do well in almost any part of California, but the fruit is not generally very highly valued in any part of the world where it is found. It is cultivated everywhere rather more as a curiosity than for any other purpose.

The growth of the Medlar has rather a rustic appearance, having a spreading, crooked habit. On this account it may very properly be introduced where rustic scenery is an object. It blossoms much better than most other fruits, the flowers being solitary and produced at the end of the shoots, or of short side-spurs; the petals are roundish and white; the calyx is green and leafy, but as the fruit approaches maturity it withers and dies back till at last only the fleshy stubs at the base remains. The fruit is not at all fit to eat, as we have observed, when first gathered, requiring to be kept till it begins to decay, but when it becomes completely disorganized, and its green color has entirely gone, the pulp, in its incipient state of decay, has to many tastes an agreeable flavor and sub-acid. Some persons again have the fruit prepared and glazed with sugar. Tastes are different, and people who are very fond of medlars, prefer them, in their naturally mollified state, to the finest melting pears. In this state they will keep for use for several weeks, if in a dry airy situation, and there is a stoneless variety, which keeps longer than the other kinds.

Clubs and Granges.

An Eastern paper speaking of the Granges says: One-third of all the elevators and grain warehouses in the State are now owned or controlled by Granges, and no less than five million bushels of grain were shipped to Chicago on Grange account prior to December first, last.

The number of cattle and hogs shipped in the same manner is enormous, and the reports received from all these shipments show an increased profit to the farmer of from ten to forty per cent., as compared with the usage received at the hands of the average "middlemen" in times previous.

In the matter of purchasing agricultural implements direct from the manufacturers, the Grange purchasers of the State have saved the farmers, by actual computation and comparison of the price at the implement store, $365,000. For instance, one class of reapers ranging as No. 1, retailing at $240, was sold to the Grange, in fours or more, at $140—a clean "save" of $100 on each machine.

Flower Studies.

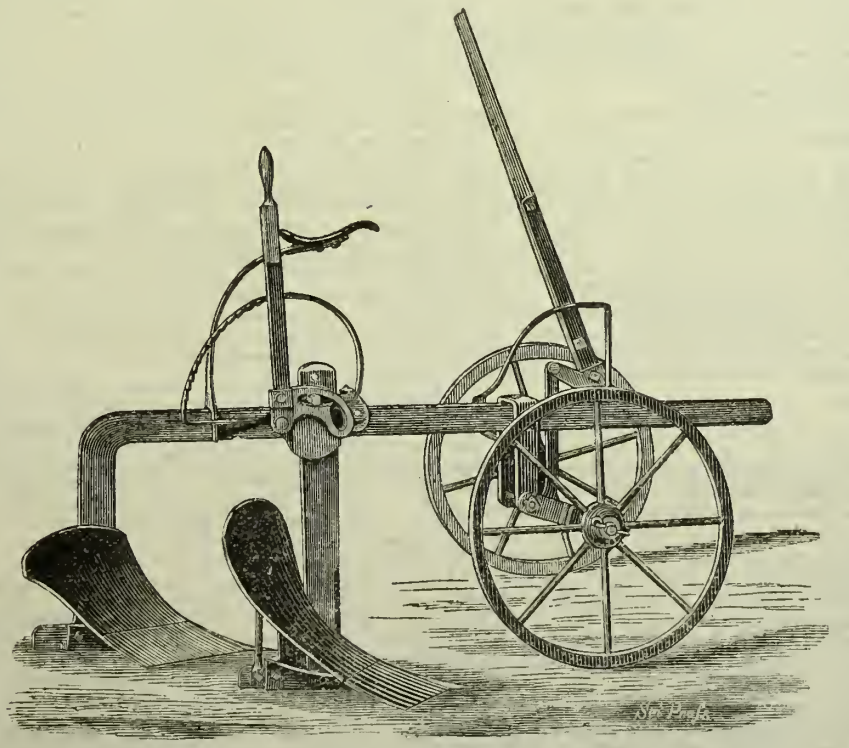
[Written for the PRESS by MRS. E. S. CARR.]

The attention of nurserymen and florists has been directed of late to the many beautiful shrubs which belong to the Flora of California. One of these, rarely found in gardens, is just passing out of bloom, the *Garrya*—so named by David Douglass, in compliment to a distinguished officer of the Hudson Bay Company. It was regarded as the greatest curiosity sent home by the great botanist and explorer, and the structure of the flower is so unlike anything else in the vegetble world that it forms a natural order all by itself. From a shrub of medium size, somewhat straggling in its growth, with ovate or roundish leathery leaves, there depends early in January long strings of pale silver green blossoms; looking precisely like strings of lilac or jessamine flowers upon a blade of grass. It looks as though nature had made it in some mood of play, and the form had become fixed without her intention. More curious than beautiful, once seen, it will never be forgotten. (See Illustration.)



THE GARRYA.

Highest on the list of flowering shrubs we place Manzanita, lovely in name as in form and foliage. There are several species, and all are desirable additions to ornamental grounds. The evergreen leaves and richly colored stems remind one by a subtle association of the aboriginal inhabitants, who used their berries as food and the wood for many purposes in their simple arts. Manzanita is a social shrub, and enjoys having companions of her name and lineage within speaking distance, as you will see if you ever visit the petrified forest near Calistoga, over the ruins of which a family circle of Manzanita trees, of all sizes and ages, but with garments cut by an exact pattern, appear to have convened to study out the mystery. On the summits of the Sierra Nevada, where the vegetation is dwarfed by the cold, miniature trees of the Manzanita closely resemble the vegetable monstrosities which the Chinese and Japanese create by artificial methods.



MYERS & GUMMOW'S GANG SUBSOIL PLOWS.

Along the cañons the currant gooseberry (*Ribes Sanguineum*) hangs pale, pink tassels upon delicate willowy stems, and the Moose Wood (*Dirca palustris*) is covered with leaves of freshest green. Its blossoms, tiny yellow bells on leafless boughs, have just faded. This plant shows well the advantages of our climate, for it is now budding in the Alleghanies, and two months hence will open on the edge of the Maine woods.

High up in the chapparal of the foothills the earliest of the *Ceanothus* family is opening its tiny chalices, and filling the air with fragrance of lilac and birch, or, as some will have it, of the best green tea. Its racemes of countless flowers, so purely, delicately blue, as to seem more like a deeper atmosphere than anything else, cover the nakedness of rugged spiry branches, and change the chapparal into a haze of lovely color, lasting for many weeks. No single genus gives such beauty to the drapery of the hill as the Ceanothus. Varying from purple to pure white, and in season until past midsummer, inhabiting the deep woods and more open spaces, it is our constant, changeless friend. To complete the catalogue of its virtues, let us say that it takes kindly to civilization.

One of our most desirable shrubs is the evergreen cherry (*Cerasus illicifolia*). The leaf is more polished than the English Holly, more delicately carved at the edges, and the habit of the plant quite as massive and compact. It is the best hedge plant for our climate, though of slow growth, for the gophers and squirrels understand its medical properties, and wisely let it alone. A hedge of this cherry, growing on Mr. Wheeler's farm, near San Mateo, is the most perfect we have ever seen. It is twelve feet in hight, about fifteen years old, and perfectly impenetrable to man or beast. At San Lorenzo it may be seen at the Llewellyn place in great luxuriance.

The *Amelanchier*, commonly called "Shad bush," or June Berry, is distributed through the entire country, from ocean to ocean. It deserves cultivation from its graceful, drooping habit and early bloom, though less valued by us than it is by our friends in the Eastern States, as a harbinger of spring.—*Illustrated Press for March.*

Gang Subsoil Plows.

Herewith we present an illustration of Myers & Gummow's gang subsoil plow, an implement quite unique in form, and said to be admirably adapted to the purposes for which it was invented. The inventors and patentee of these plows, are practical, energetic and thorough mechanics, and fully understanding the real want of the agriculturist in this department, brought out this plow, for which they claim the following new and distinctive features:

FIRST—That the plows can be used as an ordinary two gang plow, or with one plow and the sub-soiler.

SECOND—If used in the latter manner, the sub-soiler follows in the previously made furrow—not behind the ordinary plow, and they claim a decided improvement in this, inasmuch as the off animal always walks in a hard furrow.

THIRD—They claim a decided improvement over any axletree now in use, in strength and ease of raising and lowering the plows.

FOURTH—These gangs are made of all iron, except the pole, and are consequently very strong and durable. They can be set so as to plow any desired depth to eighteen inches.

This plow was awarded two premiums at the State Agricultural Fair at Sacramento, Cal., in 1872, and one premium at each of the Fairs held at Marysville and at Chico, California, same year.

FREIGHT OVERLAND.—According to the report of J. C. Stubbs, Assistant Freight Agent of the Central Pacific Railroad 2,200,812 pounds of freight were sent East in February, making a total for January and February of 5,950,112. Among the items for February was 50,940 pounds of quicksilver.

THE HOMESTEAD LAW.—The new homestead law passed by the 1st session of the last Congress in the Senate, and on the last day of the 2d session in the House, was lost by being on the bottom of the pile and not being acted upon by the President in the time allowed.

FOUR warehouses at Harrisburg, Oregon, have a storage capacity of 175,000 bushels of grain. They contain at present about 25,000 bushels.



Neighbor Gray's Farmin'.

"Good morning, morning, Neighbor Gray,
It's uncommon pleasant weather,
I thought I'd call as I went to town,
And we'd have a talk together.
Your crops—how are they getting on?
—I s'posed you'd be a-mowing,
But I see as I look at your lower lot
You aint quite finished hoeing."

"No, Neighbor Green, I hev bad luck,
I plod from year to year,
But can't contrive to make ends meet.—
There's somethin' wrong, that's clear.
The weevils they eat up my wheat;
My corn don't seem to grow;
And I'm 'fraid the black potato rot
Will spoil that crop, you know.

I own four hundred acres, strong,
Of pasture, wood, and hay,
But it's mighty tough, hard up-hill work,
And farmin' doesn't pay.
I've tried a-raisin' oats and rye,
Broom-corn, tobacco, flax,
But I git behind hand every year,
Can't even pay my tax.

"Can't git a hand to help me hoe
A day, for love nor money,
Boys, now-a-days, am 'fraid of work,
I do declare it's funny.
My Pat just cut his finger off,
A splittin' up a rail,
And Bridget don't dare milk the cows,
For fear they'll kick the pail."

"My sons, John, Jim and Israel,
Left me two years ago,
To run a grist mill way out West
In Michigan,—St Joe.
My girls,—well Jane, she's married now,
And Ester, and Medora
Hev gone to try and keep a school
In a place they call Sonora.

"My wife, she's kind o'tired out,
And seems to like to mutter
'Bout bakin' days and washin' days
And makin' cheese and butter.
She almost frets my patience out,
'Cause I don't take the papers,
And so I send, for sake of peace,
And borrow Deacon Draper's."

"I know it's sort of stingy like,—
A meager way of livin',
To never have a cent to spare
For spendin' or for givin',
And, sometimes, when I look around,
I'm half inclined to think
I oughter hev somethin' besides
My vittles and my drink."

"There's Lawyer Brown, and Parson White,
Keep spans, fast, sleek and fat;
I've only got a one-horse team,
A shabby one at that.
Now, neighbor, since you've happen'd in
(I never mean to flatter),
But your're the man, for all the world,
To tell me what's the matter."

"Ah, Neighbor Gray, you're very kind,
And I'll tell you in a trice,
For there's one thing we're all free to give,
And that is, good advice.
Your farm's too large, your land is poor,
It keeps you in a worry,
Your grass is thin, your grain is weak,
With all your fuss and flurry."

"Long years ago a poet prayed
For 'A little farm well tilled,'
We scarce find rhymers now-a-days
In agriculture skilled.
But that's good sense, go sell your fields,
Acres! don't keep but fifty!
Then underdrain your low lands,
Your hills, dress, make them thrifty.

"Mowing machines are handy things,
And so's a good horse-rake,
The best's the cheapest in the end,
Whatever name and make.
Fix firm each shaky, reeling fence,
Prune the gnarled apple-trees,
Plant belts of cedar, spruce and pine,
To break the northwest breeze.

Give the old house a coat of paint—
It needed it before,
Then put some sweet, old-fashioned pinks
And roses by the door.
That parlor carpet, faded, worn,
Replace it with a new;
Build a bay window looking south,
To catch the pleasant view.

"Well,—next,—go buy your wife a gown,
A ribbon, and a shawl,
A few well-chosen books, and hang
Some pictures on the wall,
Then take the *Plowman, Homestead,* RURAL, *Republican, Gazette,*
And if you add *Harper's Bazaar*
Your wife will never fret.

And then call home those girls, forlorn,
Dear Esther and Medora,
Don't let them stay another day
Away in old Sonora.
But p'raps if Israel, John and Jim
Are making money so,
They'd better stay and run their mill
At present in St. Joe."

A WORD FOR THE WIFE.—There is much good sense and truth in the remark of a modern author, that no man ever prospered in this world, without the co-operation of his wife. If she unites in mutual endeavors, or rewards his labor with an endearing smile, with what confidence will he resort to his merchandise, or his farm; fly over lands, sail over seas, meet difficulty or encounter danger, if he only knows that he is not spending his strength in vain, but that his labor will be rewarded by the sweets of home. Solitude and disappointment enter the history of every man's life; and he is but half provided for his voyage who finds but an associate for his happy hours, while for his months of darkness no sympathizing partner is prepared.

Fear.

It is not the fact, that because some men are more constantly exposed to danger than others, they are, consequently, freer from fear than the generality of their kind. Warriors are not so uncommonly brave as the world gives them credit for. Let it be remembered, that, in battle they are penetrated with a prodigious fury, elated by prospects of a glorious victory, hurried on from scene to scene, till, in their fury and excitement, they become utterly forgetful of the great slaughter that is going on around them, and the imminent danger that momentarily threatens them. The strong passions and the excitement they experience, supersede and suspend fear. But, when their passions are at rest, and their ardour is not aroused, when they become calm, inactive spectators of the horrid massacres of war, we do not see, or at least, do not hear of their stifling the passion of fear to such a very great degree.

Cicero tells an anecdote of the famous Roman general, Pompey, so lauded for his valor, conceiving a dread of the enemy when in Egypt, after having been quietly looking on at a shuddering slaughter, in which he had taken no part, who, when he saw the Egyptian vessels approaching, was so overcome by fear that he pressed the rowers to make haste away, for fear of being surrounded by the enemy, and slaughtered in the cruel and butchering manner in which he had witnessed his friends and adherents perish. We, ourselves, devoutly believe that a soldier in a battle, who takes no part in the action, remains all the while in perfect anguish, without rest of mind or body, and, at length, unable to bear the agony of terror, throws himself into the engagement with a kind of fascination, convinced that death, in its actual shape, is less vexatious and insupportable than the fear of it. The effects of fear are sometimes so fatal, that as we have already said, that men have been known to die under the strong influence of it. A couple of French merchants once fought a duel in the neighborhood of Bordeaux. On the first fire, one of the parties fell, and the second immediately approached, supposing that he was mortally wounded. After a close inspection, they found that he had not sustained any injury, his antagonist's ball having glanced aside, and lodged in the trunk of a tree; but he was, nevertheless dead, having, it is conjectured, anticipated by his terror, that fate which might otherwise have escaped.

Fear is a thing natural to all of us, and necessary for the preservation of our lives. It was implanted in us, to the end that we might not run headlong upon mischief that we are not able to encounter, but use the remedy of shunning those evils which we have the ability to withstand. But fear is at the same time, one of the miseries and infelicities to which nature is subject. It is ever the concomitant of vice, folly, and obstinacy, which are invariably attended by restlessness, impatience and apprehension.—*Smiths' Magazine.*

WHAT CAN A WOMAN DO?—Behold her works of charity and benevolence scattered over all the earth's wide circumference. She can do anything she pleases, provided she has her own way; she can set the whole world by the ears, and the men at their wit's ends. Pillow her on a bed of roses, cherish her as you would a favorite plant and she becomes vain and proud and wayward—a thing of impulses and faucies. But let sickness visit her home and lay its heavy impress upon those she loves, and in a moment she is a changed being. Her whole form dilates with the pent up fires of her affections, struggling to get free; her heart becomes firm, and she is girded for the work assigned her; not a murmur escapes her lips; place her by the side of the dying and the dead and she is the same god-like being. When the fearful pestilence is raging, and strong men tremble before the sweep of its invisible power, she grows strong in her purposes of mercy, and with unflinching fortitude bares her breast and her brow alike to the pitiless elements, to the pestilential air of a hospital or the steady dew-damp of a dungeon.

ATTENTIONS AFTER MARRIAGE.—The beautiful attentions which were so pleasing before marriage are too often forgotten afterwards; the gifts cease or come only with the asking; the music dies out of the voice; everything is taken for granted, and the love that, like the silver jet of a fountain, leaped to heaven, denies its natural outlet, ceases to flow altogether. Then comes dull, heavy, hard days, with two unhappinesses tied together wishing themselves apart, and not always content with merely wishing. This is unnatural and wrong. What married life wants to give it new tone and sweetness, is more of the manner as well as spirit of courting time. Very much of the pleasure of courtship comes from the constant attentions of the parties to each other Their affection voices itself in all possible ways. Every sentence is edged with a compliment, and spoken in tender love. Every look is a confession. Every act is a new word in the exhaustless vocabulary of love. Kiss and caress are parenthetic clauses in the dialect of love, and gifts and sacrifices are the most emphatic expressions of the spirit no language can fully articulate and no devotion declare. And it is the fact that affection confesses itself continually in look and word and act, making the voice musical and the fingers poetic in their touch and doing, that makes the experience so beautiful, the only Eden many a woman has on earth. Love must have expressions or it will die. It can be kept forever beautiful and blessed as at the first by giving it constant utterance in word and act. The more it is allowed to flow out in delicate attentions and noble service, the stronger and more satisfying and more blessed it will be. The house becomes home only when love drops its heaveuly manna in fresh every day, and the true marriage vow is made not once for all at the altar, but by loving words and helpful services and delicate attentions to the end.

SYMPATHIES AND ANTIPATHIES.—The subject of sympathies and antipathies is extremely curious. Boyle fainted when he heard the splashing of water; Scaliger turned pale at the sight of water-cresses; Erasmus became feverish when he saw a fish. A curious story is told of a clergyman, that he always fainted when he heard a certain verse in Jeremiah read. Zimmermau tells us of a lady who could not endure the feeling of silk or satin, and shuddered when touching the velvety skin of a peach. Mr. Julian Young tells the story of an officer who could not endure the sound of a drum, and ultimately fell dead when compelled to hear it. There are whole families who entertain a horror of cheese; on the other hand, there was a physician, Dr. Starkie, of Edinburgh, who lost his life by subsisting almost entirely upon it. Some people have been unable to take mutton, even when administered in the microscopic form of pills. There is the case of a man falling down at the smell of mutton, as if bereft of life, and in strong convulsions. Sir James Eyre, in his well-known little book, mentions three curious instances of idiosyncracies—the case of a gentleman who could not eat a single strawberry with impunity; the case of another, whose head would become frightfully swollen if he touched the smallest particle of hare; the case of a third, who would inevitably have an attack of gout a few hours after eating fish.

THE RUSSIAN GIRL AT SCHOOL. — The suppressed sex is making its way in Russia. The father of our young friend Alexis is an enlightened ruler who comprehends the spirit of the age and is in sympathy with it. One result of his reign is that there are now as many high schools for the Russian girls as for their brothers. The teachers in these schools have all passed a university examination. The course of study includes mathematics, history, philosophy, French and German. For the golden girls of nobility there are distinct schools, carried on by ladies of noble birth, who are pensioned by the crown. In St. Petersburg and Moscow there are excellent mixed schools after our American pattern. There is talk however, of providing separate academies for the young ladies, some of their fellow students of the ruder sex having undertaken, we are sorry to hear, to ape the boorish practices lately prevalent in sundry colleges in Boston, Philadelphia and New York. But the Muscovite miss has shown good pluck, and we shouldn't be surprised if she proved fully able to hold her ground against the rowdies.—*Ex.*

DO WHAT YOU CAN.—If you cannot be a great river, bearing great vessels of blessings to the world, you can be a little spring by the wayside of life, singing merrily all day and all night, and giving a cup of cold water to every weary, thirsty one who passes by.

YOUNG FOLKS' COLUMN.

Boy Heroes---No. 2.

The Brave Drummer Boy.

Shortly before the battle of Wilson's creek, one of the first of the war for the Union, there came to Gen. Lyon's headquarters, in Missouri, a woman who had been driven out of Tennessee by the rebels, and who brought with her her only son, a lad about twelve years of age. The boy's name was Edward Lee. He wished to become a drummer boy in the Union army, and as he was very skillful in the use of the drum, he at once procured a situation. It made his mother's heart ache to leave him.

"Captain," she said, "if he is not killed"—here the feelings of a mother choked her utterance—"if he is not killed, Captain, you will bring him back won't you?"

"Yes," said the Captain, "we will bring him back. We shall be discharged in six weeks."

"After the battle of Wilson's Creek," said an officer, "I was detailed on guard duty, my post being on a high eminence overlooking the ravine where we had just engaged the enemy, and where many of the wounded were yet lying. The moon had gone down in the early part of the night. All was silent save the far-off howling of the wolf that seemed to scent he banquet we had been preparing for him. Presently I heard a drum beating the morning call in the ravine below. The sound was familiar to me. I knew it was—

"Our drummer boy from Tennessee"

"As soon as I could go to the spot, I followed the sound of the drum, and found Eddie seated upon the ground, his back leaning against the trunk of a fallen tree, while his drum was hanging upon a bush in front of him.

"As soon as he saw me he dropped his drum sticks and said—

"O, Corporal, I am so glad to see you, bring me something to drink."

"I turned to bring him some water from the brook. He did not understand my intention, and said with a hurt look.

"Don't leave me, Corporal, I can't walk."

"I soon returned with the water when I discovered that both his feet had been shot away by a cannon ball.

"He drank eagerly, and then said with a wishful look.

"You don't think I will die, do you?"

"At this moment I heard the tramp of cavalry coming down the ravine, and, before I could escape, a scout of the enemy was upon me, and I was taken prisoner. I requested the officer to take Eddie to the front, and he did so carrying him with great tenderness and care. When we reached the camp of the enemy, the little fellow was dead.

A STORY FOR CHILDREN.—A gentleman owned a fine horse, which was very fond of him, and would come from the pasture at the sound of his voice, and would follow him about like a dog. Well, at one time the horse became lame, and was obliged to stay in his stable and not be used for many weeks, and it was during this time that Mr. C. became interested to see how much the horse knew, and how kind his sympathies were. An old cat had made her nest upon the scaffold just above the horse's manger, and laid there her little family of five kittens.

She and the horse got on nicely for some days. But one morning she rolled off into the manger with her foot bleeding, and badly hurt, so that she could scarcely crawl; but she managed to leap away on three feet and got her breakfast; but when she came back she was entirely unable to get up to her kittens, and what do you suppose she did? She lay down at the horse's feet, and mewed and looked up several times, till at last the pony, seeming to understand her wants, reached down, took the cat in his teeth, and tossed her up on the scaffold to her kittens, who, I doubt not, were glad enough to see her. This, Mr. C. told me, he saw repeated moring after morning.

IN VICKSBURG there is a little black boy whose foot is 13¼ inches long and 5 inches broad.

A RAW countryman, gazing at a garden in the vicinity of Boston, in which were several marble statues, exclaimed: "Just see what a waste! Here's no less than six scare-crows in this ten-foot patch, and any one of them would keep the crows from a five acre lot!"

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent double motion, by which (simply on moving a lever at the hand of the driver, either a fast or slow speed may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,

And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

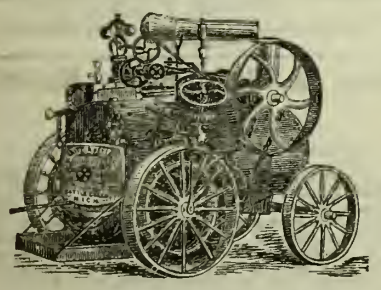
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KELLER & CO.,

43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.

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CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

HAS A DOUBLE MOTION,

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for illustrated pamphlet, and don't fail to see the ÆTNA before buying.

TREADWELL & CO.,

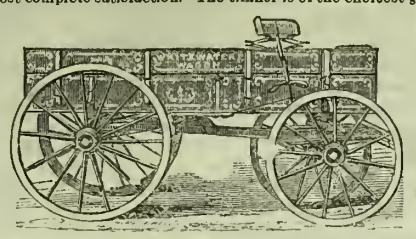
Sole Agents Pacific States, San Francisco.

Old Stand, Market, head of Front Street. f22-3m

THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test a** SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and ontside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



G. W. SWAN. OLIVER HINCKLEY.

UNION BOX FACTORY,

SWAN & CO.,

114 and 116 Spear Street, - - - - San Francisco.

GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS.	FOR FARMERS.	FOR FRUIT CANNERS.
Sugar Boxes,		Plum Boxes,
Spice Boxes,		Cherry Boxes,
Citron Boxes,		Grape Boxes,
Jelly Cans,		Orange Boxes
Pickle Cans,		Raisin Boxes,
Kerosene Cans,		Butter Chests,
Butter Caddies,		Strawberry Chests,
Lard Caddies,		Gift Packages,
Butter Chests,		Bullion Boxes,
Coin Boxes,		Coin Boxes,
Peach Baskets,		Tool Chests,
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All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

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Another Cuts Wood as Thin as any Pasteboard and Smooth as Paper.

Another Makes a Strong Corner Without a Nail.

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AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
Powder and Fuse,

HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

Orders respectfully solicited. Catalogues and prices furnished on application. 18v4-6m

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Manufacturers of and Dealers in

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MANTEL PIECES, ETC.,

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LANDS, FARMS, ETC.

Parties wanting to sell would do well to send us a description of their property.

☞ WE MAKE NO CHARGE unless we EFFECT SALES.

We have 500 Farms and over 600,000 Acres of and for Sale.

Address BRANDON & BIBBINS,
Pacific Land Exchange,
Sansome street, San Francisco.

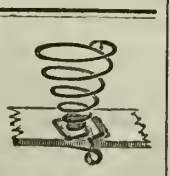
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Manufacture all sizes of

Bed and Sofa Springs,

Which they offer to the trade at reduced prices; also the celebrated **Obermann Self-Fastening Bed Spring.**



Any man can make his own Spring Bed with them by attaching them to the slats of any bedstead.

No. 147 New Montgomery Street, corner of Natoma, San Francisco. 12v5-3m

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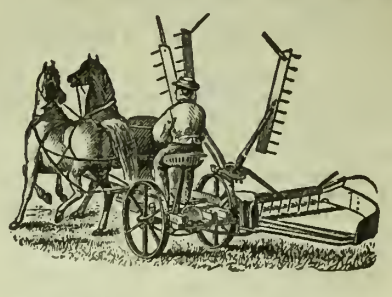
Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

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For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,
BUCKEYE REAPER,
BUCKEYE SELF-RAKE REAPERS,
HAINES' GENUINE HEADER,

VIBRATOR SEPARATOR

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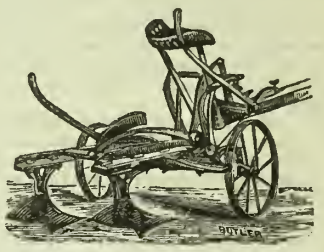
MOUNTED HORSE-POWERS,
TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,

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Ready's Patent Gang Plow.



This Plow was awarded the First Premium and Gold Medal at the great Plowing Match at the State Fair, 1872. Fifteen Gangs entered, including the Eureka, American Chief, Sweepstake, and others of notoriety. It has Wrought Iron Beams, Iron Wheels, Cast Steel Moulds and Shears. It is neat, simple, strong and durable, and warranted to run light, and lifts out of the ground easier than any other Gang known to the trade. Extras furnished and warranted to fit.

W. B. READY,
301 J street, SACRAMENTO, Cal.,
17v4-6m Sole Maker and Patentee.

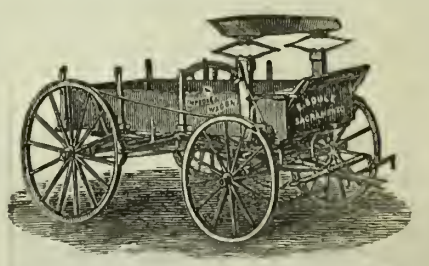
MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.



FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE

ap22-3m San Quentin, Cal.

The Celebrated Whitewater Wagons

Thimble Skein AND IRON AXLE

Sole Agents TREADWELL & Co.

It will pay any man who wants a Wagon to examine "The Whitewater." It has the reputation of being the BEST Farm Wagon ever sold in California. All sizes for sale by TREADWELL & CO., Sole Agents, San Francisco. 7v5eow

[Continued from page 229]

the early-made gardens need to be taken in ont of the wet.

A LINN county farmer laughed himself almost to death, not long ago, to see a chicken thief try to climb a fence with his knees full of buckshot.

REV. C. A. WOOLEY informs the Corvallis *Gazette* that up to last Wednesday he had received about $1,000 subscription toward liquidating the debt upon State Agricultural Farm.

THE Roseburg *Plaindealer* says: "The farmers in the northern part of the valley are sowing much more than the usual amount of grain. And if the railroad company will offer reasonable inducements for shipping, money will be plenty after harvest."

A CORRESPONDENT writing from Canyonville, says crops are looking fine in that part of the country, and that a greater acreage than usual has been sown. Stock have passed through the winter in good condition. This is especially true of sheep. The wool clip of this year will exceed that of last year in quantity, and be superior in quality. This results from the flocks being in better order and free from scab.

The Albany and Astoria Farmers' Company incorporated at Albany on the 1st. The capital stock of the Company is fixed at $50,000; shares, $25 each. The business, according to the articles of incorporation, will be to "construct, build, equip and run steamboats, barges, and all kinds of water crafts, and the same to operate upon the Willamette river, in the State of Oregon, from its mouth to the head thereof, and so far as the same is, may, or shall be, navigable with its tributaries; and also the Columbia river from its mouth to its head, or so far as the same is, may, or shall be navigable, together with its tributaries, in transporting upon same Willamette and Columbia rivers and their tributaries, and upon the high seas, up and down and upon the same, passengers, freight or other things, as is done by common carriers.

Also, to build, own, and have warehouses and all and any kind or kinds of storehouses, wharfs, docks and boat landings, and receive, store, and transport any and all kinds of grain, produce, or other things susceptible of storage and transportation, and to charge therefor in any manner not contrary to law; to purchase, take, acquire, and hold lands, moneys, or other property, real and personal, and to sell, encumber, mortgage, or convey the same, or any part thereof to the use of the corporation.

WASHINGTON.

Kslama *Beacon*, March 22: WEATHER.—The last shower was on the night of the 15th inst., since which time the weather has been clear and pleasant; but we do not report settled weather, as any half hour may overspread us with clouds and rain.

LOOK OUT FOR THE FLOOD!—All the news from the Upper Columbia announces that an unusual quantity of snow has fallen in that region; and unless there happens to be an early opening of warm spring weather, a very high freshet may be expected. We advise our friends who are now improving near the river to get ready for the contingency, and not be caught like the "foolish virgins."

THE FARMERS EXCITED.—We notice that the farmers of the Wallamet valley, Linn county particularly, have held a convention and passed resolutions to become their own grain exporters without the further agency of "middle-men." They threaten to erect a warehouse at Albany and at Astoria, in which to store their grain for shipment.

San Juan Island, which is sixteen miles in length and four in width, has a good climate—abounds in grass and limestone—each and both being a source of great wealth. The manufacturing of lime is already very profitable, and in time this island will be a source of great wealth to our country. The island has a fair population of English inhabitants, most of whom have become naturalized recently. Orcas Island in the same vicinity, is, as the former, noted for its almost endless amount of limestone.

Chance for Goat Raisers.

We have received the following communication which we give place to, because it seems to offer sufficient inducements to claim the attention of those desiring to engage in the very lucrative business of goat raising:

"We wish to sell our range and homestead, and 500 goats, and kidding just beginning. There will be by the middle of June, from 300 to 350 kids, making in all, say 800. The present herder will remain with them if desired until kidding time is over. Price in round figures, $3,200.

The property consists in detail, of 80 acres, with house suitable for family; corralls and sheds, and the possessory right to a range two and one-half miles long, and from one and one-half to two and one-half miles wide, below the snow line, on which goats do well all the year round.

The herd consists of 150 native does, 150 half breed wethers, (muttons) 200 one-half and three-quarter does from one to two years old. Of the kids this year there will doubtless be 125 three-quarter and seven-eighths blood. The herd will pay expenses after July next in mutton alone; the kids this year will be worth near $2,000. The homestead and range is worth $1,000 to a goats breeder; can drive a buggy over many parts of it. It is from its very nature secure against settlers as the homestead is the key to the occupation."

The name of the party offering an dparticulars can be had by addressing J. H., care of RURAL PRESS office, San Francisco.

Wheat Review for March.

We are slowly but surely reaching the end of the wheat season of 1872-'73—the most memorable that has ever been witnessed in California. Surely all must acknowledge that agriculture is fast taking the place of mining as the special industry of California, when we find that the value of one article alone, the wheat harvested, has been upwards of THIRTY MILLION DOLLARS, and that the exports will, before the year is at an end, equal EIGHTEEN MILLIONS. Now, the export season is drawing to a close, we may say that of the whole value as given above the farmers of the State did not receive more than NINE MILLIONS OF DOLLARS, while in Liverpool, etc., it will not bring less than TWENTY-FIVE MILLIONS. Before it reaches the masses of England another five millions will be added on, so that the English workman will pay more than three times the price for his bread that the cultivator obtains for it here. And all this passes into the hands of monopolists. No wonder that the monopolists of the world should be rich, and the masses miserably poor and wretched.

The Movement in the Market

During the month has been but little. Coast Wheat has remained stationary, varying in price from $1.60 to $1.75, though some very inferior lots have changed hands as low as $1.40. Coast Wheat, however, forms but a small portion of the wheat product coming into our markets. Shipping Wheat from the interior, with some Coast, has varied a few cents during the month. On the 1st of March it was quotable at $1.70 to $1.80, but on the 8th it rose 5 cents, and was sold at $1.75 to $1.85, at which it remained till the 27th, when it rose 2½ cents more, being quotable at $1.80 to $1.85. Thus it increased in price 7½ cents during the month, and in the face of an almost constant fall in the Liverpool markets. This has been caused by the exhaustion of the export surplus, and by the fall in freights necessitated by this exhaustion contracting the demand for wheat tonnage. In the beginning of March, Milling Wheat was quotable at $1.80, but on the 8th inst. it rose to $1.90, at which figure it remained till the 33th inst., when it commanded only $1.85, and it has since remained at this figure. It exhibits a rise of 5 cents during the month.

The English Market

Has shown a downward tendency nearly through the whole month, a consequence of the enormous daily arrivals at the port of Liverpool. At the begining of the month it was, according to Associated Press telegrams to Merchants Exchange, from $2.81 to $2 87 per cental. On the 5th it rose 1½ cents, being quoted at $2.82 to $2.80. Next day it rose 1½ cents more, ranging from $2.84 to $2.90. On the 7th it rose another cent, being $2.85 to $2.91. At this figure it remained for six days. On the 14th and 15th it was quoted at $2.80 to $2.91, since which it has continuously fallen. On the 16th it fell six cents, on the 20th, four cents, on the 29th two cents, and on the 31st two cents. At the end of the month it was then nine cents lower than at the begining, though shipping wheat had advanced 7½ cents. Thus there was left a margin less by sixteen and a half cents for shippers, but this amount came out of the freight money.

Freights,

Which were $20.05 per ton at the beginning of the month, have since fallen to $18.22, a fall of $1.83, or 9 cents per cental, but they are weak even at this, and may be expected ere long to fall to $15 or thereabouts. For several months there will be more vessels arriving seeking wheat freights, than there will be any demand for, and we may expect to have our harbor full of ships by the 1st of July next.

Receipts

During the month have been as follows: At San Francisco, from the interior and from coast ports, 518,987 centals; at Oakland, from the interior, 171,600 centals, and at Vallejo, according to shipments, 148,150 centals, making a total of 838,737 centals. If to this we add Flour receipts in this city, we have total receipts of Flour and Wheat, for March, equal to 881,959 centals. The total receipts for the past 9 months have amounted to 12,036,103 centals, leaving 2,463,897 centals less what has been used for seed, still in the hands of the farmers or stored up by exporters throughout the country. Of this 1,500,000 has been, probably, used for seed, so that there now remain only 963,897 centals to come forward. This is nearly all available for exportation, and there will be little of it left by the 1st of next November, as there was at the end of March, ships enough available for the wheat trade to carry away 549,000 centals.

Exports

During the month aggregated 29 cargoes, carrying 841,686 centals, worth $1,612,534. Our receipts and exports thus, as nearly as possible, tallied. Of this quantity 259,280 centals, or seven cargoes, were in part loaded at Oakland, and 148,150, or five cargoes, at Vallejo, leaving seventeen cargoes, of 434,256 wholly loaded at San Francisco.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 8th, 1873.

FOR WEEK ENDING MARCH 25th, 1873.*

MANUFACTURE OF BORACIC ACID.—Frederick Gutzkow, S. F., Cal.

FORMING AND GAUGING BUTTER ROLLS.—Charles H. Fancher, assignor to self and Frank A. J. Diss, S. F., Cal.

AMALGAMATOR.—Frederick Morris, S. F., Cal.

GANG PLOW.—August Kaufman, Davisville, Cal.

ROTARY STEAM ENGINE.—Wm. C. Stiles, Nevada City, Cal.

COMPOUND AND APPLIANCES FOR CURE OF ASTHMA.—Jeane-batiste Pinchard, S. F., Cal.

REISSUE.

DOUBLE FRICTION COUPLING.—Joshua Hendy, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

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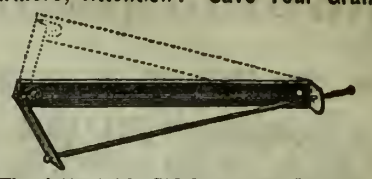
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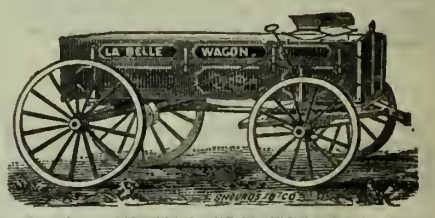
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Wheat Market Quotations Compared.

1873.	S. F.	Liverpool.		Dif.	Bet.
	SHIPPING.	TELEGRAPH REPORTS*	MAIL REPORTS†	Mail & Tel.	S. F. & Tel.
Jan 25....	1 95	3 03@3 07	.....	.....	.....
" 21....	1 95	3 03@3 07	.....	.....	.....
" 28....	1 95	— —@— —	3 03@3 23	.....	.....
" 29....	1 92½	3 00@3 03	.....	.....	.....
" 30....	1 92½	3 00@3 03	.....	.....	.....
" 31....	1 92½	2 98@3 01	3 01@3 23	12½	1.07½
Feb. 1....	1 92½	2 98@3 01	.....	.....	.....
" 3....	1 92½	2 98@3 01	.....	.....	.....
" 4....	1 92½	2 98@3 01	3 03@3 28	11	1.07
" 5....	1 92½	2 96@2 99	.....	.....	.....
" 6....	1 91¾	2 96@2 99	.....	.....	.....
" 7....	1 91¾	2 96@2 99	2 99@3 20	12	1.06¾
" 8....	1 91¾	2 96@2 99	.....	.....	.....
" 10....	1 91¾	2 96@2 99	.....	.....	.....
" 11....	1 91¾	2 92@2 97	3 01@3 29	22	1.03¾
" 12....	1 87½	2 96@2 99	.....	.....	.....
" 13....	1 86¾	2 96@2 99	.....	.....	.....
" 14....	1 89½	2 93@2 95	3 05@3 31	21½	1.06½
" 15....	1 86¾	2 93@2 95	.....	.....	.....
" 17....	1 81½	2 93@2 95	.....	.....	.....
" 18....	1 87½	2 93@2 95	3 01@3 26	19½	1.06½
" 19....	1 87½	2 93@2 95	.....	.....	.....
" 20....	1 88	2 93@2 97	.....	.....	.....
" 21....	1 83¾	2 89@— —	2 99@3 21	22½	1.15
" 22....	1 83¾	2 89@2 91	.....	.....	1.06¼
" 24....	1 82½	2 89@2 91	.....	.....	1.07½
" 25....	1 82½	2 85@2 87	.....	.....	1.03½
" 26....	1 82½	2 85@2 87	.....	.....	1.03½
" 27....	1 75	2 83@2 85	.....	.....	1.01
" 28....	1 75	2 81@2 87	.....	.....	1.09
Mar. 1....	1 75	2 81@2 87	.....	.....	1.09
" 3....	1 75	2 81@2 87	2 81@3 03	6	1 09
" 4....	1 75	2 81@2 87	.....	.....	1.09
" 5....	1 75	2 82@2 89	.....	.....	1.10½
" 6....	1 75	2 84@2 90	.....	.....	1.12
" 7....	1 75	2 85@2 91	2 99@3 05	4	1.13
" 8....	1 80	2 85@2 91	.....	.....	1.08
" 10....	1 80	2 85@2 91	.....	.....	1.08
" 11....	1 80	2 85@2 91	.....	.....	1.08
" 12....	1 80	2 85@2 91	.....	.....	1.08
" 13....	1 80	2 85@2 91	.....	.....	1.08
" 14....	1 80	2 89@2 91	.....	.....	1.10
" 15....	1 80	2 89@2 91	.....	.....	1.10
" 17....	1 80	2 81@2 87	.....	.....	1.01
" 18....	1 80	2 81@2 87	.....	.....	1.01
" 19....	1 80	2 81@2 87	.....	.....	1.01
" 20....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	.....	.....	1.01
" 22....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	.....	.....	1.01
" 25....	1 80	2 79@2 83	.....	.....	1.01
" 26....	1 80	2 79@2 83	.....	.....	1.01
" 27....	1 80	2 79@2 83	.....	.....	1.01
" 28....	1 80	2 79@2 83	.....	.....	1.01
" 29....	1 80	2 77@2 81	.....	.....	99
" 31....	1 80	2 75@2 79	.....	.....	97
Apr. 1....	1 80	2 73@2 79	.....	.....	96
" 2....	1 80	— —@— —	.....	.....	96
" 3....	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	.....	.....	91½
" 5....	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 75@2 85	.....	.....	97½
" 8....	1 82½	2 75@2 85	.....	.....	97½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—The average quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

San Francisco, April 9th, 1873.

The tone of the Produce Market this week has been a little firmer, partly induced by the reason that there is not quite a million centals yet to come forward, and partly to an

Advance in Liverpool

Of four cents per ceutal. This advance is doubtless caused by the splendid quality of the Wheat shipped hence to Liverpool. This is so good that the bad wet product of last years' Englisb barvest. Tbis large demand will nullify in great measure the depressing effect of the large Californ ia importations. Writing on this subject the *Mark Lane Express* of March 19th says:

Among the recent arrivals of foreign some of the new Californla white Wheat has appeared of rea ly splendid quality, probably weighi g naturally about 66 lbs. per bushel; and for this only 65s is demanded in the London market. While such fine specimens of foreign are exhibited we cannot expect anything beyond a very limited demand for our own damp and sprouted stocks, many of which seem only fitted for the starch maker, who has this season had ample stores at his comuand. But as the French market have continued rising, and offers have been made of Californians at Havre at the low price of 61s, we must expect a considerable diminution of our expected supplies from the south, unless prices sufficiently rally to divert these fine qualities from France. Choice French white in Paris is worth 63s, and there can be little doubt but that the Californian of the last season is fully 2s better. Time is wearing on, as we are just about half through the cereal season, and the reduction of our stocks in the country will soon begin to tell, in spite of the dragging trade we have experienced. Only last week we note a reduction in the weekly sales of 8,360 quarters, and if once the market be cleared of native produce, foreign importers will find the game in their own hands, and endeavor to make up for lost time in profitable movements.

Spring Wools

Have begun to arrive, nearly 1,000 bales being received in the city during this week, and considerable demand is opening up for them, an order for 200,000 lbs. having been received from New York. Nevertbeless the market is mucb depressed.

Receipts.

Receipts this week exhibit a decided falling off in nearly all departments of Domestic Produce. Tbose of Flour have been only a fourth of those of the previous week, of Wheat a little less, but on one day only 495 centals were received; those of Barley have fallen off one-half; of Hay do; of Wine one-fifth, and of Bran one-half. Receipts of Hides bave increased one-third, wbile tbose of Wool have more tban doubled.

We summarise receipts of Bay Produce to date as 14,273 quarter sacks of Flour; 103,343 do of Wheat; 11,942 do of Barley; 78 do of Oats; 124 do of Corn; 51 do of Buckwbeat; 47 do of Rye; 1,986 do Potatoes; 70 do of Mustard; 485 do of Bran; 37 do of Middlings; 96 do of Beans; 14 do of Flax Seed; 21 do of Peas; 90 of Onions; 600 tons of Hay; 45 do of Straw; 1,245 Hides; 38 bales of Wool; 18 do of Cotton; 19,185 gallons of Wine, and 40 of Brandy.

Receipts of Wheat at Oakland wharf bave aggregated 44,600 centals, or 223 car loads.

Receipts of Domestic Produce from Coast ports, except in the article of Wheat show a decided increase tbe aggregate being, Wheat, 105 centals; Barley, 5,088 centals; Oats, 1,264 centals; Corn, 6,385 centals; Wool,, 240 bales; Hides, 263; Potatoes, 6,068 centals; Beans, 918 do; Mustard Seed, 24 do; Wine, 4 puncbeons, 25 kegs, 16 pipes, 1 half barrel, and 20 casks; and 2 casks and 4 barrels of Brandy.

From Oregon, we have received 930 boxes of Apples; 1,884 sacks of Oats; 162 quarter, and 983 half sacks of Flour; 441 Hides; 435 sacks of Wheat; and 148 do of Onlons.

Barley.

Barley remains nearly the same. The fourth cargo to Australla cleared out to-day. Receipts have been somewbat less tban last week, aggregating 17,030 centals. We note sales of 400 bags Coast, at $1.20; 1,200 do of Coast and Bay Feed, at $1.25; 200 do of Coast Brew, at $1.27½; 1,400 do of Bay, at $1.30; 1,800 do of Bay Brew, at $1.35; and 7,200 tons of Bay Brew, at $1.37½. There are two more small cargoes to be sent to Melbourno.

Flour.

Tbere is no change in the price of Flour. Transactions bave been but small during tbe week. Exports bave been also small consisting of 20 half sacks, and 9,700 quarter sacks, of which 9,000 were destined for Nicolawski, and tbe balauce for Victoria and Mexico.

Hay.

Receipts of Hay were smaller tban tbose of last week. We note sales of 20 tons of common, at $12.50, one cargo of Wheat, at $22 per ton, and one of Tame Oat, at $18.

Oats.

Oats remain as before. There have been large receipts from Oregon and Coast ports. We note sales of 600 bags of good feed, at $2.25, and 300 do Oregon at $2.37½.

Potatoes.

Receipts still continue large, 8,054 centals having come to hand last week. The new Mission Potatoes are selling from carts at $1.80 to $2,50 per cental. We note sales of 2,200 bags of Humboldt at from $1 to $1.12½; 500 do of Bodega at 75c. to 80c; 150 do of Monterey at 80c.; and 1,000 do of Petaluma at 80c.

Wheat.

Wheat in Liverpool has gone up 4c., being now q oted hy the Associated Press Telegram to the Merchants' Exchange as $2.75 to $2.85. This is only 2c. advance o the price as telegraphed this day week, but since then it had fallen 2c. Freigbts are quoted at the same figures as last week, but no one is offering it fo them. Receipts from all parts in this city were somewhat larger than those of the previous week, being 147,943 centals. We note sales of 3,100 sacks of Good to Fair at $1.80; 10,000 do of Shipping at $1.81¼; 6,100 do of good Shipping and Milling at $1.82½, and 13,300 do of Choice at $1.85. Most of the Wheat now being shipped is taken from the warebouses.

Exports bave been somewbat larger than those of last week, including per "Times," to Cork, 23 844 centals; per "Max," to Falmouth, 13,836 do; per "River Indus," to Liverpool, 32,984 do; per "Star of Hope," to Queenstown, 39,622 do; per "Kenilworth," to Liverpool, 21,754 do; and per "Great Admiral," to Queenstown, 44,657 do. Making a total of 6 cargoes of 184,697 centals, worth $338,885.

Wool.

One of our local Wool brokers says that prices East now rule lower tban at any time this last three years. Prices here rule also low, and the future is uncertain. Sales during the week aggregate, 15,000 lbs. of new spring at 17c to 20c, 60,000 lbs. of new and old spring and fall at current rates, and 60,000 lbs of new spring at 18c to 20c.

GENERAL MERCHANDISE.

There is very little cbange to note in the markets. Paints are very slow of sals. Trade was better during tbe winter. A leading house of this city informs us that they have sold $10,000 less this season, thau they did last. In this matter the city papers bave been in the habit of quoting psint at figures much exceeding their real prices. Turpentine bas fallen 5 cents per gallon. Pig Iron is firm at rates quoted, but no sales have taken place during the last fortnight. The receipts of coast coal are very large, prices therefore rule lower. In the article of case goods, goods in large cans are scarce, as also are Blackberries. Imports have not been so heavy as those of last week. Exports have aggregated $537,502, carried in 13 vessels.

San Francisco Metal Market.

PRICES FOR INVOICES.

Wholesale prices range from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, April 9, 1873.

Iron.—			
Scotch Pig Iron, ₱ ton	$60 00	@	— —
White Pig, ₱ ton	60 00	@	— —
Refined Bar, bad assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 08½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	
Nail Rod	10½	@	
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
Copper.—			
Brazier	— 35	@	— 38
Copper Tin'd	— 50	@	— —
Old Nails	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29		— 30
Composition Bolts	— 29		— 30
Tin Plates.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50		14 —
Roofing Plates	13 00		13 50
Banca Tin, Slabs, ₱ lb	— 40		— 42½
Steel.—English Cast, ₱ lb	— 20		— 25
Drill	20		— —
Flat Bar	22		— —
Plough Points	16		— 17
Russia (for mould boards)	17		18
Zinc.	9¼		10
Zinc, Sheet	— 9		— 10
Nails—Assorted sizes	— 5½	@	— 9

DOMESTIC PRODUCE.

WEDNESDAY M., April 9, 1873.

BEANS.			
Beans sm'l wh. lb	4¼	@	—
do, butter	4¾	@	—
do, large, do	5	@	—
do, b.yo	3¼	@	3½
uo, pink	4	@	—
do, poa	5	@	—
BROOM CORN.			
Per ton	$40	@	120
DAIRY PRODUCE.			
Butter, Cal. fresh, lb	—	@	—
do, ordin'y roll	22½	@	—
do, choice	27½	@	—
do, new firkin	21½	@	—
do, pickled	28	@	—
do, New York	—	@	—
Cheese, Cal new	12	@	15
do, Eastern	17	@	—
Eggs, Cal. fresh	—	@	26
do, Oregon	—	@	—
do, Eastern	—	@	—
FEED.			
Bran per ton	17	—	@18—
Middlings	25 00	@	—
Hay	20 00	@	21 —
Straw	9 00	@	12 —
Oil cake meal	30 00	@	—
Corn Meal	31 00	@	10—
FLOUR.			
Alviso Mills, bbl	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Commer'l Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
Santa Cla a Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venus, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard, Sac	4 50	@	5 75
FRESH MEAT.			
Beef, tr quality, lb	—	@	8
do, second do	—	@	7
do, third do	5½	@	—
Veal	—	@	12½
Mutton	—	@	6½
Pork, undressed	—	@	8
do, dressed	11	@	—
GRAIN, ETC.			
Wh't Cal. c'st.cl	1 75	@	1 80
do, shipping	1 80	@	1 82½
do, milling	1 80	@	1 85
do, Oregon	—	@	1 85
Barley, Dark O'stl	17½	@	1 22½
do, Light	1 20	@	1 25
do, Brewing	—	@	1 40
Oats, Coast	2 25	@	2 40
do, Light	2 25	@	2 40
Corn, White	1 20	@	—
do, Yel ow	1 20	@	—
Buckwheat	1 50	@	—
Rye	2 —	@	—
HOPS.			
California, 1871, lb	—	@	—
do 1872	50	@	—
Eastern, 1872, lb	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	32½	@	35
Honey, choice	19	@	22½
Los Ang. Honey	25	@	30
Onions	—	@	4
Flaxseed	3	@	—
anary du	4	@	5
Mustard do, white	1½	@	2¼
do, brown	2	@	3
Alfalfa	35	@	—
Ky. Blue Grass	50	@	—
Timothy	35	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	—	@	5
Pecan nuts	16	@	18
Hickory do	10	@	—
Brazil do	16	@	—
Coc'anuts, ₱ 100	9 00	@	—
Alm'ds h'd shell	10	@	12½
do, soft	20	@	25
POTATOES.			
Sweet, per lb	—	@	—
Humboldt	1 00	@	12½
Monterey	75	@	1 00
Tomales	75	@	90
POULTRY & GAME.			
Live Turkeys, lb	23	@	25
Dressed do	24	@	25
Hens, per doz	9 00	@	10 50
Roosters	9 00	@	10 50
Chickens	4 50	@	7 00
Ducks, tame, doz	10	@	13 —
Geese, per pair	3 00	@	3 50
Hare, per doz	2 50	@	3 00
Snipe, Eng., doz	2 00	@	2 25
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	11½	@	14
Eastern do	10	@	15
do sugared	13	@	—
Cal. Hams	—	@	14
Eastern do	—	@	16
Cal. Smoked Beef	12	@	—
WOOL, ETC.			
Choice Nor'n fall	15	@	16
do spring	18	@	20
Sndy fall	—	@	—
Burry	10	@	11
Hides, dry	—	@	18½
do wet salted	9	@	—
Tallow	7	@	7 50

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	16¼	@	—
Flour Sacks ⅓s	16¾	@	—
" ¼s	8½	@	9¼
Stand. Gunnies	—	@	17½
" Wool Sacks	9	@	70
" Barley do	17	@	—
Hessian 40-in gds	—	@	12
do 60	18	@	—
CANNED GOODS.			
Ass't'd Fruits in 2½ lb cans	3 00	@	—
do Table do	3 75	@	4 —
Jams & Jellies	4 —	@	4 25
Pickles ½ gl	3 25	@	3 75
COAL—Jobbing.			
Austr lian	14 —	@	15 —
Coose & Bel. Bay	9 00	@	10 00
Seattle	11 00	@	—
Cumberl'd, cks	26 00	@	—
do bulk	22 50	@	23 —
Chile	—	@	—
Lehigh	20 00	@	—
Liverpool	14 00	@	15 —
West Hartley	14 00	@	16 —
Scotch	12 00	@	14 —
Scranton	17 00	@	—
Vancouver's Isl.	12 00	@	11 —
Charcoal, Pk	00	@	—
COFFEE.			
Costa Rica per lb	12½	@	—
Guatemala	18	@	20½
Java	22	@	23
Manilla	17	@	—
Ground in cs	27½	@	—
Chicory	8	@	—
FISH.			
Pac. Dry Cod, new cases	6	—	@7 —
Eastern Cod	8 50	@	9 —
Salmon in bbls	7 50	@	—
do ½ bbls	4 50	@	5 00
do 2½ lb cans	—	@	—
do 2lb cans	—	@	—
do 1lb cans	—	@	—
Pick. Cod, bbls	—	@	—
do ½ b ls	—	@	—
Pug. Sd. Smok'd	—	@	—
Herr'g, bxs	—	@	50
Mack'l, No. 1, ₱ bbs	8 50	@	11 00
" Extra	—	@	13 00
" in kits	2 25	@	3 00
" mess	—	@	4 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size	5¾	@	9 —
OILS.			
Pacific Glu Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No 1	1 35	@	1 40
do No 2	1 25	@	1 30
Cocoa Nut	10	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	40	@	45
Polar, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Olephine	40	@	—
Devoe's Bril't	44	@	46
Long Island	42	@	—
Eureka	42½	@	—
Downer Kerose'e	55	@	—
Gas Light Oil	42	@	—
PAINTS.			
Stand. White Lead	11½	@	12
Whiteing	—	@	2
Chalk	—	@	1
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11
China No. 1, ₱ lb	13¼	@	7
do 2, do.	6	@	6½
Japan	4½	@	7
Patna	7	@	7½
Hawaiian	8½	@	9
SALT.			
Cal. Bay, per ton	5 00	@	15 —
Carmen Island	14 00	@	30 —
Liverpool fine	24	@	—
do coarse	9 00	@	20 —
SOAP.			
Castile, ₱ lb	12	@	12½
Local brands	5½	@	7
SPICES.			
Allspice, per lb	—	@	18
Cloves	27½	@	—
Cassia	30	@	—
Nutmeg	1 00	@	—
Whole Pepper	22	@	—
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	25	@	30
do Mace	1 50	@	1 75
do Coffee	25	@	—
SUGAR, ETC.			
Cal. Cube per lb	12½	@	—
Circle A crushed	12¾	@	—
do granulated	11¾	@	12
Golden C	10	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls	52½	@	—
do in ½ bls	55	@	—
do in keys	60	@	—
TEA.			
Oolong, Canton	19	@	25
do Amoy	23	@	50
do Formosa	40	@	80
Imperial Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42½
do Pingsuey	50	@	80
do Moyune	65	@	1 25
Ying Hy., Canton	28	@	48
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 1½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Com. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut chewing, bue'ts, ₱ lb	75	@	90
Fine cut chewing, bue'ts	2 25	@	—
Banner fine cut	2 25	@	—
Eureka Calu	3 50	@	—

FRUIT MARKET.

The supply of oranges and lemons is good. Pine apples are scarce. Bananas are in plentiful supply. Apples and pears are both scarce. Dried Fruit is in plentiful supply.

FRUIT MARKET.			
Tahiti, Or, ₱ 100	1 00	@	2 00
Cal. do	35	@	60 —
Limes, ₱ M	12 50	@	5 —
Cal. Lemons, 1000	4 00	@	6 50
Bananas, ₱ bunch	3	@	4 —
Pineapples, ₱ doz	10	@	12 —
Apples, eat'g, bx	2 50	@	3 50
" Cooking	2 —	@	2 50
Pears, Eating	1 75	@	2 50
" Cooking	—	@	1 50
Pomegran's, ₱ 100	—	@	—
Grapes, Mission	—	@	—
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'x	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	6	@	8
Pears, ₱ lb	5	@	8
Peaches, ₱ lb	10	@	12½
Apricots, ₱ lb	—	@	—
Plums, ₱ lb	5	@	8
Pitted, do ₱ lb	13	@	20
Raisins, ₱ lb	8	@	12¾
Black Figs, ₱ lb	8	@	In
White, do	—	@	12½
VEGETABLES.			
Cabbage, ₱ dz	50	@	75
Garlic, ₱ lb	5	@	6
Green Peas	5	@	6
Green Corn, ₱ doz	—	@	—
Marrowfat Squash per ton	—	@	7 50
Artichokes, ₱ lb	2	@	—
Tomatoes, in A, ₱	—	@	8
String Beans, ₱ lb	—	@	—
Lima Beans	6	@	—
Peppers dry	—	@	25
Okra	35	@	40

No Life Insurance Company has a better record or more prominently popular reputation than the Connecticut Mutual Life Insurance Co. J. B. Roberts, 315 California street, San Francisco, is general agent for this Coast. Send to him for circulars and information of this reliable, first-class company.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		RETAIL PRICE.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough fencing, ₱ M	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	30 00
Rustic, ₱ M	35 00	Laths, ₱ M	4 00
Rustic refuse, ₱ M	21 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00		
Flooring refuse, ₱ M	20 00	**REDWOOD—Retail.**	
Beaded flooring, ₱ M	32 50	Rough Pickets, ₱ M	18 00
Beaded floor, refuse, M	22 50	Rough Pickets, p'd, M	20 00
Half-inch Siding M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch siding, ref. M	16 00	Siding, ₱ M	27 50
Half inch, Surfaced, M	25 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half inch Surf. ref., M	18 00	Do do refuse, ₱ M	27 50
Half inch Battens, M	22 50	Half inch surfaced, M	40 00
Pickets, rough, ₱ M	14 00	Rustic, ₱ M	42 50
Pickets, rough, p'nd	16 00	Battens, ₱ lineal foot	1
Pickets, fancy, p'nd	22 50	Shingles, ₱ M	3 50
Shingles, ₱ M	3 00		

San Francisco Retail Market Rates.

WEDNESDAY NOON, April 9, 1873

FRUITS, VEGETABLES, ETC.

Pears are nearly out. There are only a few apples left. Oranges are getting plenty. There are two or 3 loads in from Tabiti. There are plenty of California lemons. Strawberries are getting plenty. All chestnuts are nearly out of the market. Vegetables are plentiful. There are plenty of Green Peas coming in. Asparagus are rather scarce, on account of the frost.

Apples, per lb	5	@	12½	Carrots, ₱ doz	—	@	20
Pears, per lb	8	@	12½	Celery, ₱ doz	75	@	—
Apricots, lb	50	@	6¾	Cucumbers, ea	20	@	25
Pine Apples, each	50	@	1 00	Tomatoes, ₱ lb	12½	@	—
Bananas, ₱ doz	50	@	75	Green Peas	8	@	—
Canteleups	—	@	—	String Beans	20	@	—
Watermelons	—	@	—	Cress, ₱ doz bun	20	@	20
Italian Chestnuts	50	@	—	Dried Herbs, lb	25	@	35
Cal. Walnuts, lb	20	@	—	Garlic	8	@	10
Cranberries, ₱ g	—	@	1 00	Green Corn, doz	—	@	—
Strawberries, lb	30	@	35	Lettuce, ₱ doz	20	@	35
Raspberries, lb	—	@	—	Mushrooms, ₱ lb	25	@	50
Gooseberries	—	@	—	Horseradish, ₱ lb	20	@	35
Cherries, ₱ lb	—	@	—	Okra, dried, ₱ lb	50	@	—
Oranges, ₱ doz	50	@	1 00	do fresh, ₱ lb	—	@	—
Limes, per doz	—	@	—	Pumpkins, ₱ lb	2	@	—
Figs, dried Cal.	12½	@	25	Parsnips, doz	—	@	20
Figs, Smyrna	18	@	—	Parsley	15	@	20
Asparagus, lb	10	@	15	Pickles, ₱ gal	50	@	1 75
Artichokes, doz	35	@	50	Radishes, doz	20	@	—
Brussel's sprts,	—	@	—	Summer Squash	3	@	—
Beets, ₱ doz	20	@	—	Marrowfat, do	3	@	4
Potatoes, New, ₱ lb	3	@	6	Hubbard, do	2	@	3
Potatoes, sweet	2	@	3	Dry Lima, shl	8	@	10
Broccoli, ₱ pc	10	@	25	Spinage, ₱ bskt	25	@	30
Caulitlower, ₱	10	@	25	Salsify, ₱ hunch	10	@	—
Cabbage, ₱ doz	75	@	1 00	Turnips, ₱ doz	—	@	10
				Rhubarb	8	@	10

POULTRY, GAME, FISH, MEATS, ETC.

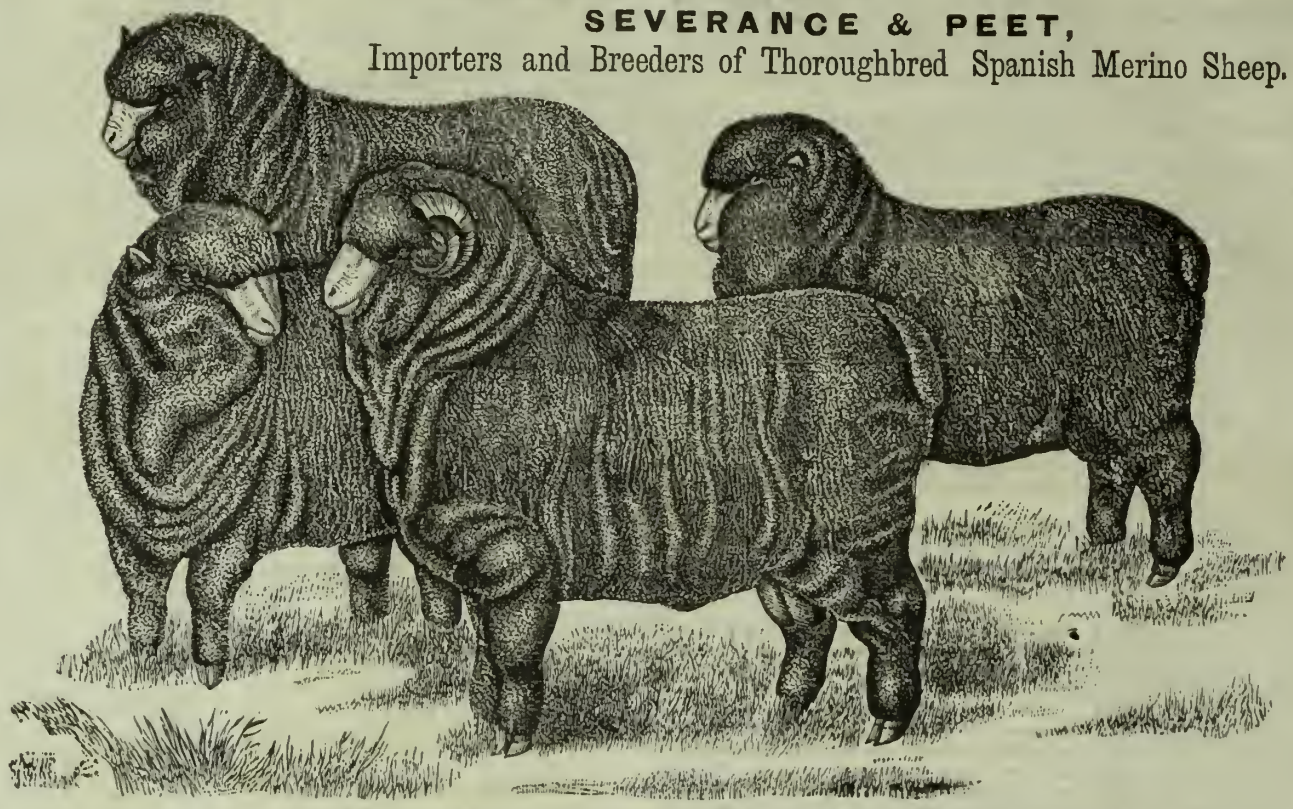
Rabbit and hare, both wild and tame, are in plentiful supply. Poultry is rather scarce and the prices high, but there is no demand. The Easter holidays, however, will inaugurate a different state of things.

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Stock Notices.

M. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.

GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remeinder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

GREAT JOINT SALE

—OF—

SHORT-HORNS

AND

COTSWOLD SHEEP,

consisting of the

ENTIRE WOODLAWN HERD

Of Wm. B. Dodge, and a large draft from the

GLEN FLORA HERD

At WAUKEGAN, ILLINOIS, on

Wednesday, April 9th, 1873.

The subscribers announce that they will hold a public sale, at WAUKEGAN, ILLS., WEDNESDAY, April 9th, 1873, of **90 Head** of highly and fashionably-bred **Short-Horn Cattle. and 100** pure-bred **Cotswold Sheep,** mostly imported, being the entire Woodlawn herd of WM. B. DODGE, and a large number of the most desirable animals from the Glen Flora herd, of the Glen Flora Stock Breeding Association.

Among the animals to be sold are

MAZURKAS,
LADY CLARKS (Miss Wileys),
JUBILEES,
MINNAS,
CONSTANCES.

Also, several other noted animals, including **Henrietta, Lady Brough, Countess of Oxford, Pattie Moore** and **Flattery 4th,** the get of the noted Minister, the prize bull Scotsman, etc.

We have no hesitation in saying that we believe this sale will comprise the largest collection of first-class stock—show animals and prize winners on both sides of the Atlantic—ever offered in this country at public sale.

Terms of Sale:

Six months time will be given on approved endorsed notes (interest at rate of six per cent. per annum). For cash in hand a discount of 5 per cent. will be allowed.

Waukegan is 35 miles north of Chicago, on Milwaukee Division of N. W. R. R. Trains leave Chicago at 8 A. M. and 9.45 A. M., and return in time for all trains leaving Chicago that evening.

Sale will commence at 10 o'clock, A. M., SHARP.

For Catalogues, giving full description, pedigrees, etc., address either of the undersigned.

WM. B. DODGE,
C. C. PARKS, Pres't.

Waukegan, Lake Co., Ills.

☞ On the day following, a public sale, from the **SLAUSONDALE HERD,** of GEO. MURRAY, Esq., will be held at Racine Junction, Wis., 25 miles north of Waukegan. mr1-eow3t

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"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS."—*Alexander.* "You get no FIGS from THISTLES"—*Old Proverb.*

I have 30 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

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From my flock of thoroughbred Sheep, of this celebrated breed, I am willing to sell a few head of both Rams and Ewes.

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These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

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El Doredo, El Dorado county,
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16 Pure Blood Bucks and Ewes.

250 Grades—all Ewes.

They are ½, ¾ and ⅞ Grades.

100 Kids, of both Sexes, Graded.

I will sell the above at low prices. Address, soon,

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12v5-1f

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Three Fine Thoroughbred Cows, and Two Young Bulls.

All superior animals. Enquire of

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Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,
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Breeders and Importers of the

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SHEEP.

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Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

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NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderbilt in three straight heats in 2.25½, 2.25¾, 2.24¼. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25¾, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Naubuc Farm, San Lorenzo, Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,
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CONSTITUTION POWDER,



FOR HEAVES, STAGGERS, FITS, COLIC, LUNG FEVER, COLDS, COUGHS,

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For Spavins, Curbs, Splint, etc. Send for circular containing reference.

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Then call at the

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1v5-2m

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m29-4t

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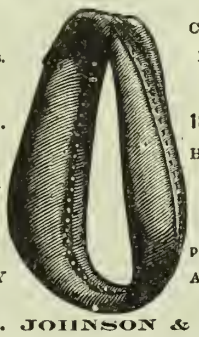
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19v5-f

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It is made of Wood, is Light, Strong and Extremely Durable.

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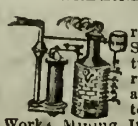
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Eggs from the Finest Imported Fowls

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Light and Dark Brahmas,
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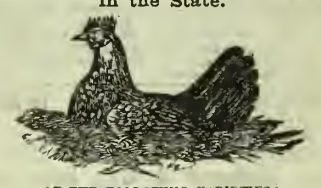
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You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat deily with the celebreted H. H. H Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

WILLIAMS & MOORE, Proprietors,
Stockton, Cal.

For sale everywhere. 12v5-3m

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Farmers, everywhere, write for your paper.

THE HORTICULTURAL SPRING EXHIBITION

OF THE

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WILL OPEN ON MAY 1st, 1873, AND CONTINUE FOR NINE DAYS,

—AT—

Horticultural Hall,

Corner of Post and Stockton Streets,.....SAN FRANCISCO.

This will be chiefly a Floral Exhibition However, all Horticultural products will be received.

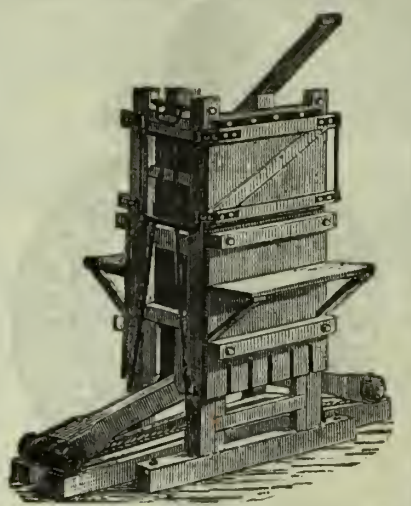
Amateurs are earnestly invited to contribute and compete for special prizes offered.

For particulars inquire of the Secretary,

F. A. MILLER,
No. 622 Clay Street, San Francisco.

ap12-4t

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable **EAGLE HAY PRESS**, the invention of J. A. Mcmillivral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of heating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 550 pounds. Reference, Maj. Rob't Beck.

We have added to this Press this season an improvement (petented) which does the stamping, dispensing with the need to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

Who are the Proprietors on the Pacific Coast, and will endeavor to have a supply constantly on hand.

12v5-2am3m-2ts

FOR SALE.

A Fine Bronze Gobbler,



28 months old; weight 32 lbs; and two Hens, weighing respectively 14 and 13½ lbs. Age, 13 months. Price, $150. Can't be beaten on this coast. Markings, etc., guaranteed.

GEO. B. BAYLEY,
15v6tf Box 659, San Francisco.

FOR SALE AT A BARGAIN.

205 ACRES OF GOOD LEVEL LAND, NEW HOUSE AND OUT BUILDINGS.

Young Orchard. Sixty acres in Grain. Good Fences and plenty of Timber. Located within one mile of a thriving town in Lake county. Price $6,500.

P. H. SUMNER,
ap12tf No. 6 Montgomery street, S. F.

Jersey Cattle.

I have now for sale, and will be in regular receipt of,

Imported and Thoroughbred Jersey Cattle,

WITH AUTHENTIC PEDIGREES.

Their reputation for Butter stands unequalled.

R. G. SNEATH,
15v5-2m Menlo Park, Cal.

New York Seed Warehouse.

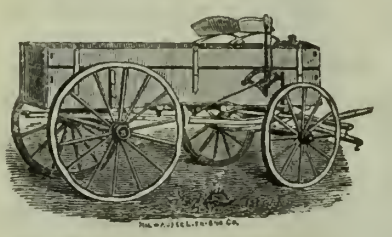
ESTABLISHED IN 1852.

R. J. TRUMBULL,
[Successor to O. L. KELLOGG]
Wholesale and Retail Dealer in



The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSKMELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v5-2m

THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,

being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,
15v5-3m Sacramento or San Francisco.

EGGS FOR HATCHING

FROM

THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

At the Sacramento State Fair.

LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons,

Pouters, Carriers, Fantails; and Madegascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to THOS. E. FINLEY, Manager,
California Stock and Poultry Association.
OFFICE—No. 113 Leidesdorff street, S. F. 5v5

DEVON STOCK FOR SALE.

A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character.



From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the ranch of J. J. FELT,
an25-3m16p Three Miles from Menlo Park.

FARMERS, ATTENTION!

Sacks! Sacks! Sacks!

All farmers wishing to secure cheap and durable Grain Sacks will find it to their interest to call on us before going elsewhere.

KOHLER, McDOUGALL & CO.,
Bag Makers, 221 Davis st., one door south of Clay,
15v5-3m San Francisco.

WANTED.

Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. CHAS. F. BECHERER & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v5-3m

SEASONABLE SEEDS

At Reduced Prices.

The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
Yellow Globe.	Long Red.

All Imported Seeds.

—ALSO—

Grass and Clover Seeds

Timothy,	English Rye Grass,
Red Top,	White Clover,
Kentucky Blue Grass,	Red Clover.

ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

GEO. F. SILVESTER,
No. 317 Washington Street,
6v2-1y16p SAN FRANCISCO.

Improve Your Poultry.

It Costs No More to Keep Good Fowls than Poor Ones!

SEND STAMP FOR ILLUSTRATED CIRCULAR



Containing a full description of all

The Best Known

And Most Improved Breeds of

POULTRY,

—TO—

GEO. B. BAYLEY,
Box 659.....San Francisco.
15v6tf

TO DAIRYMEN, OWNERS OF HORSES, AND STOCK DEALERS

We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent; and the report further says that if the "Farmers would note the differences in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and some at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

The Meal can be had of the HAY AND GRAIN DEALERS of the city, and all orders will receive prompt attention.

☞Pure raw and boiled Linseed and Castor Oil constantly on hand; also, a very superior article of Metallic Paint—the best and cheapest in market. Address

PACIFIC OIL AND LEAD WORKS,
P. O. Box, 1443, San Francisco.

Office, 3 and 5 Front Street, Works, King St., near Third.
15v5—3m

Every Horse-Owner's Cyclopedia

Is one of the most comprehensive and practical treatises upon the Horse ever published in the United States. It gives a full description and the successful mode of treating the

"EPIZOOTIC INFLUENZA"

And all other diseases to which the Horse is subject, together with a complete description of the natural history, physiology, pathology and general management of the Horse in health and disease. It tells HOW TO TRAIN HIM to various gaits, how to prepare him for the chase, or for hard work, etc. Illustrated with numerous engravings. PRICE, FIVE DOLLARS. It will save its cost many times over in the course of a year. The book is having an immense sale.

AGENTS WANTED. Apply for terms and territory to

A. ROMAN & CO.,
No. 11 Montgomery street, San Francisco.
ap5-1m

PILSBURY, WEBB & CO.,

(LATE MARSH, PILSBURY & CO.,)

HARDWARE.

—ALSO—

Agents for the best CHOPPING AX, POST AUGER, AND WRINGING MACHINE ever made. For sale cheap. Call and see.

CORNER Front and Pine streets, San Francisco.
12v5-tf

SEND this paper to your friends abroad.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, APRIL 19, 1873. [Number 16.

The Gladiolus.

This gorgeous flower grown annually from bulbs, like the dahlia, is justly entitled to rank among the favorites of the amateur culturist. Our illustration, kindly loaned us by the well-known Briggs Bros., of Rochester, N. Y., shows only the upper part of one of the flower spikes of this splendid plant, and a full-grown plant in miniature.

Of its appearance and proper mode of cultivation, we cannot do better than copy from the descriptive catalogue of the above-named celebrated florists.

"This plant produces long, brilliant spikes of showy flowers, of almost every conceivable shade of colors. The Gladiolus presents itself at once as the most desirable of our Summer Bnlbous Plants. For center and large table bouquets, where size and effect are desired, they are nnequalled. The Gladiolus should be planted from early in April till the last of June, by which conrse a snccession of bloom will be obtained. The best effect is produced when planted in groups or rows. The bulbs should be planted three inches deep, and for groups place them six to eight inches apart, of six to ten in a group; or, they may be planted in rows two feet apart, and six inches in the rows If in exposed situations, they should be tied to neat stakes, to prevent injury from strong winds. The bulbs should be taken up in the fall, cleaned, and stored where they will be safe from freezing and moisture."

M. B. Bateman, Secretary of the Ohio State Horticultural Society, and one of the Judges in the Floral Department at the Western New York Fair, writes to the *Ohio Farmer* as follows:

"The display of Gladiolus by Messrs. Briggs & Brother was the wonder and admiration of all beholders, and served to impress the multitude with a sense of the great beauty and variety of these most brilliant and popular flowers. Here were over one hundred and sixty distinct named varieties, several spikes of blossoms of each in separate vases, ranging half the length of the great tent; and then, in addition, a large table filled with hundreds of seedling varieties without names, bnt some of them as brilliant as the named ones, and showing how easily good varieties can be multiplied. All honor to the men who are doing so much to promote floricnltnre among the millions of our people, and thereby making onr rural homes more beantiful and attractive."

They will live and produce very early flowers, if left in the ground, in a climate where the ground does not freeze; but to secure a succession of bloom they mnst be taken up in the fall, and then the time of their setting ont in the spring determines their early or late flowering.

Lavender Culture.

We have a subscriber for the RURAL who is determined to give his attention to the culture of flowers for the manufacture of perfumes, in connection with his other horticultural enterprises; and among other questions, asks us if we know anything about lavender, that will be instructive to him, as he is ignorant of the cnltnre of the plant.

Lavender is much prized for the very grateful odor of its essential oil. The flowers and leaves have long been used as perfumes; the ancient Romans employed them to aromatize their baths, and to give a sweet scent to water in which they washed; hence the generic name "lavendula."

The plant may be propagated from seeds or from slips or cnttings of the roots, which in California are perennial. It thrives best in a dry soil, and can be grown as distinct plants two feet asnnder or in rows forming a hedge or border. They have a close, branchy habit of growth and produce an abnndance of flowers, which should be gathered while in perfection, cutting the spikes off close to the stem.

In a dry gravelly soil, the flowers have a more powerinl odor; while in rich garden soil, thongh making a more vigorous growth, they have far less perfume.

Farmers' Union Convention.

Our paper this week is largely occupied with the proceedings in part of the California Farmers' Union Convention, which met on the 9th inst., and continued its deliberations into the third day. The importance of this Convention and the general interest felt by the farmers of the State, as to the ultimate good that may grow out of its proceeding, is our only apology—if any were necessary—for the large space devoted to it.

One of the most important immediate results growing out of this meeting, will be found in the confidence it has inspired among men who were but strangers to each other before. Meeting upon a common ground for the purpose of lending mutual aid and support to each other, in a matter that concerns their most vital interests, has given strength, and confidence in their ability to accomplish what they may have before doubted of being able to do.

Delegates departed for their homes and their constituents, evidently with inspired confidence in the Farmers' Union, and Granges yet to be instituted, as the germ of a more auspicions train of events that at no distant day will tell for increased welfare of the farmer, and the general interests of agriculture. We hope to be able to give next week extracts at least from some of the many remarks made by delegates in Convention, as showing to some extent the feeling and determination among men who have now become acquainted and united, because knowing and better understanding each other than ever before.



GLADIOLUS—Upper Part of Flower Spike, and Plant.

Breaking Horses and Mules.

The natural disposition of the horse adapts him to emergencies reqniring speed, while that of the mule, properly trained, favors longevity and heavy drafts. But their early education requires the same management, namely: kindness, familiarity and firmness. The same treatment that overcomes the suspicion and irritability of the horse disarms the obduracy of the mule.

The term "breaking" is a misnomer as applied to them, as it implies a destruction of vitality and energy which is an irretrievable loss. He must not be broken, but inured to labor and this so gradually that he will hardly know where pastime ends and labor begins. Very few horses or mules that have been *broken* are reliable in emergencies and many are injured for life by the operation.

Proceedings of California Farmers' Union at San Francisco, April 8th.

[Called meeting by the President, at the Mechantes' Institute Building.]

The Convention was called to order at ½ past 2 P. M., by Secretary Hoag, who stated that the President Gen. John Bidwell wonld be present at 3 P. M., the time for which the Convenlion was called. But in the mean time he would introduce President D. C. Gilman of the State University, but who would be compelled to leave at 4 P. M., for Sacramento.

Pres. Gilman addressed the Convenlion npon the relations of the University to the agricultural interests of the State and its proposed mode of assisling them.

Prof. E. S. Carr of the Agricultural department of the University, was also introduced and addressed the Convention, relating the agricultural and horticultural experiments making and to be made at the University. His remarks, as well as those of President Gilman, were well received.

The hour of meeting having arrived, Pres. Bidwell read an elaborate and able address, and then declared the Convention open and ready for business.

Address of President Bidwell.

Gentlemen of the California Farmers' Union: This association cannot be said to be venerable with years. It comes not arrayed in royal purple or wearing a sparkling diadem as the reward of battles fought or victories won. Oh, no. Its claims to recognition are not based on any array of brilliant achievements, for the "days of its years" are but about six snd a half months. And notwithstanding it is, as it were, as new as the morning, it is possible the unfolding future may have in store for it a career of great usefulness, if not a glorious history. The principles which called it into existence are as old as human rights—founded upon necessity, and dating from the earliest association among men for mutual protection and mutual improvement.

Organization of the Farmers' Union.

We are convened, my friends, as farmers and representatives of the farming and industrial interests of California. For several years a growing want has been felt among the farmers of the state for co-operation through a state organization, and that feeling found expression in the formation of this California Farmers Union in September last, during the State Fair at Sacramento. In that movement there was something very American in its character—a directness, an ability to improvise, to meet emergency. In a word, there was something to he done, snd they met and did it.

It is perhaps an admirable as well as useful trait in Americans that they are self-reliant, and have to so large an extent that ability snd readiness to resolve themselves into organizations. Why, I have thought sometimes that if, hy some unheard of catastrophe all governmental machinery were broken up, and the pieces scattered, it would he no hard matter for Americans to put them together, and perhaps better than before. They would go directly at the object. First, call a meeting, adopt resolutions, invite others to co-operate, frame a constitution, snd finally the majestic act of ratification by which the people would speak in their sovereign capacity, and breathe into it the breath of life, would give it being, motion and destiny And it is just so with this and other organizations. If it ever moves, you must give it life; if it marches forward in useful career, you must give it strength, direction and permanence.

I do not say everything they did at Sacramento last fall was right, for they elected me President before I knew it. I do not say your organic act may not, at some period, if not now, need addition or revision in order to secure efficiency and adequate results. It is made the duty of the Board of Directors in Article VI, to "call special meetings." The time and purposes of such meetings are left to the discretion of the Board, and in obedience to that provision you are here convened. While I may, if your time and your patience permit, make allusion to a few of the more prominent points which have occurred to me, and doubtless to you all, it will be within your province to consider and act on any and all questions pertinent to the objects of this association, which is stated in Article II. of your Constitution to be "the promotion of the agricultural and industrial interests of the State." This foundation is surely broad enough for all of us to stand upon, work upon and build upon, this year, next year and for all time, whether we be farmers, mechanics, merchants or any other useful class of citizens.

I respectfully suggest that one of the needs of farmers is to know each other, so as to fully recognize the fact hat they are united hy the ties of a common interest, and that whatever may have been their course in the past a new era is upon them now, and with it have come new conditions, new incentives to exertion, new dangers as well as prospects, and new responsibilities. Scattered, alone and unorganized, you are powerless—you can do nothing to successfnlly resist opposition or carry forward grand and useful enterprises. The first question to solve is, that you are equal to the occasion; that you are intelligent enough to know the value of union; that you will unite and stand united.

The Grievances of Farmers.

This done, and the future becomes full of encouragement. One of the grievances of the past year complained of by farmers is the enormous price imposed

for sacks in which to market or store their wheat. Instead of seven to thirteen cents, which would have been a fair price, they have had to pay fifteen to nineteen cents, or an aggregate overcharge in the State of half a million of dollars. Instead of $2.50 per ton freight on wheat from San Francisco to Liverpool, which would have been a fair rate, ocean tonnage became monopolized and demoralized and farmers made to suffer to the tune of probably $2,500,000 more. That interior freights are too high, all agree, and the overcharge on wheat alone may be within the actual limits if placed at half a million more. In how many other ways farmers are and have been unjustly taxed I will not undertake to enumerate. The aggregate totals, at a moderate estimate, cannot be stated at a lower figure than three to five millions; and the universal complaint of the farmers is that they are burdened beyond their ability to bear. [How many frugal and industrious farmers during the past year—which was one of overflowing abundance, and coincided with high prices and large demand in Liverpool and elsewhere—were obliged to borrow money to pay their State and county taxes.]

At a meeting of your Board of Directors, convened January 31 last, in this city, the question of grain sacks for the coming harvest was considered. There was still time to order from Dundee, and a Committee of the Board made every possible effort to arrange with a reliable house for a promise to furnish sacks at the lowest definite rate, and on such terms as to time and responsibility as the committee could recommend and the farmers afford to accept, with the view of communicating the information to the several clubs for their acceptance. For some time we were hopeful of success. But I must say, as one of the committee, we utterly failed to accomplish our mission in that respect. The parties could not do as we wished. After repeated delays the manufacturers or the holders would not agree to a situated price which would make it an object for farmers to accept.

This subject is submitted to your consideration, with the suggestion that the manufacture of sacks in this State should, by every means in our power, be encouraged as the only adequate remedy for existing wants in that respect.

In order to bring about efficiency on the part of your Board of Directors, and enable them to meet your reasonable expectations, I beg leave to suggest that at least the President, Treasurer and Secretary, if not a quorum of the Board, should reside in San Francisco or Sacramento (San Francisco, everything considered would be preferable, I think), and have some certain place of business. The officers named must necessarily be on the Executive Committee, and it is indispensable, in my judgement, that they be where they can meet as often as necessary to transact business. I take it for granted that you are in earnest and mean business, and, if so, you must have a habitation as well as a name.

Believing this to be absolutely necessary, if you propose to continue this State organization in any form whatever, with a capacity for usefulness, I propose to resign my position that you may be free to adopt any plan or measure giving promise of efficiency.

Advantages of Agriculture in California

At this point it may not be improper to take a view of the situation in another direction. Agriculture in California has many advantages, but it has also its disadvantages;

First, you have a soil of wonderful and varied productiveness. No other land teems with fruits and useful products of such rare excellence, and in so great variety, and abundance. Look at the cereal capacity of your State. Take for instance wheat—bread, the staff of life. If a premium were offered for the smallest yield of wheat in this State—in any land timely and properly managed—it would be difficult, in my opinion, to establish a smaller showing than 10 bushels per acre, in any ordinary or average season, from land which can be any sane man, up to this date. On the other hand, 60 to 75 bushels per acre are not uncommon; 20 bushels per acre by no means an extravagant average in some sections, and estimating the aggregate product in the United States at 300,000,000 of bushels, your total for 1872 gives the enormous proportion of one-twelfth of all the wheat raised in all the States and Territories of this extended and productive country.

Next, you have a climate so serene, salubrious, equable, reliable and invigorating, that its fame is becoming world-wide—thousands are being attracted hither from the Atlantic seaboard and other countries, from considerations of climate alone.

You have at most six months of summer sun and cloudless skies to ripen your cereals and give a harvest season, of which the people on the Atlantic side of the continent can have no conception.

You have another advantage in the lay of the land and the almost perfect condition of the soil. While in other States and Territories vast outlays from the very beginning have been necessary to clear lands of timber or to drain them because too wet, or to irrigate because too dry, or to fertilize because too poor, here in this favored sunny realm the lands cultivated have, with few exceptions, come to you from the hand of nature ready for immediate use, and all you have had to do was literally "to sow and reap and gather into barns."

Nor is this all. The general topography of the grain regions has enabled farmers to introduce with advantage the most approved agricultural implements and machinery.

You sow grain as well as reap by horse-power, you thresh by steam-power; and you are, many of you at least, looking hopefully to the time in the near future when you shall be able by steam to strip and pulverize the soil with greater profit than is possible by animal power.

In addition to the advantages named, your State abounds in mineral, pastoral and other resources. But I cannot further dwell on the pleasant side of the picture (though to it self-taxation is subsidiary), except to remark that grasses have been nature's lavishness in pasturage, mineral wealth that of the soil has run past them and become, and is henceforth to be, the leading and paramount interest.

The Disadvantages.

But it is not all sunshine even in California. As the brightest skies become overcast with the darkest clouds and the richest soil produces the rankest weeds, so even in this favored land you have your trials and troubles. You can produce but you have no reliable and adequate markets at home or abroad for your products. Even when there happens to be a demand, combination intervene and cut you off.

I submit, then, that it is our interest to unite in order to encourage manufactures and build up useful industries in our own State and thereby a large home market, and in order to bring about reasonable transportation and other expenses, and enable you to get into the markets of the world, and compete with all the world with your surplus products. As it is now, we are in comparison with the Atlantic coast, at a disadvantage by more than 15,000 miles (practically more than half the circumference of the globe) in order to reach Europe. And from this there is no escape. Your cargoes must double Cape Horn, or do worse, by doubling the Cape of Good Hope, or still worse, by doubling all the capes of Southern Asia, and thence through the Red Sea and the Suez Canal. The other lines—overland by rail, and the isthmus—are by their charges practically closed, and therefore I do not take them into account.

By the nearest feasible route, then, the Pacific coast is the remotest place on earth furnishing bread to European markets. Nevertheless, enterprise and superior natural advantages enabled you for long years to contend against distance, and overcome obstacles innumerable, till you won for California as wide a reputation for breadstuffs and other agricultural products as for its precious metals. You have made her name like that of Egypt of old almost a synonym for plenty.

There is a limit beyond which burdens cannot be borne, even by California farmers. As long as freights, sacks and other expenses left even a small margin, you said nothing. You could pay fair rates for every needful outlay, and still have a margin, though small, on which to base hopes for the future. You could afford to await the growth of home industries and the influx of population to the State, knowing, as you did, that she possessed the elements, though undeveloped, of a glorious future.

It is true the elements which bear so heavily on your prosperity are not the growth of a day, but they are none the less dangerous, for they have become well nigh formidable.

But when speculation and reckless adventure organize against you, a stalwart every legitimate business, enhance every risk and increase every expense—in other words, when freight rings, grain rings, sack rings, and all sorts of combinations, regulate their own charges, duties etc. upon your produce, and practically block up every avenue between you and your market as—can you remain insensible, silent, apathetic?

Do we not owe it to ourselves as well as to those who are to come after us, to devise reasonable safe guards for the agricultural interests of our State, and to say with the united voices of 40,000 farmers, and the 40,000 more, whose best interests are inseparable from the farming interest, that they shall not with our consent be enslaved?

What avail all your boasted advantages? What, though your soil is unsurpassed and you amaze the world with its productiveness; what, though your valleys and plains have been made ready for use by nature's lavish kindness, and give to labor larger returns than any other known country; what, though your landscape charm, your climate invigorates, and your cloudless skies give you a harvest season from June to October; of what advantage, I say, are all these, if you are to groan under oppression, lose the fruits of your labor and the control of your destiny?

Of course, farmers whose interests are indissolubly linked with the general welfare should not and do not propose to make an invasion on vested rights or retard legitimate industries of any kind whatsoever. They simply ask for protection.

I can say for myself, and I speak the sentiments of the farmers generally, as I believe, in the following declarations:

Declaration of Principles.

That agriculture is and ever must be the fundamental industry of this and all other prosperous States, and more than any other industry creates and constitutes commerce and manufactures, and furnishes the material to feed and clothe the world.

That transportation is indispensable to agricultural prosperity, and that it is one of the duties of farmers to promote the construction of roads, canals, vessels and all modes of conveyance calculated to facilitate the movement of agricultural products.

That the charges on lines of transportation should be regulated by law, and not left to unlimited monopoly; and it such regulations be found impracticable on existing lines, they should be made applicable to all future lines, until reciprocal relations shall be fully established between the producer and the common carrier.

We declare that farmers and all others should be equal before the law; that all laws should be enacted with an eye single to the equal rights of all; and to this end we declare that neither farmers nor others ought to furnish legislative, executive or judicial officers with free passes, or in any manner do anything calculated to improperly influence them in the discharge of their public trusts; and that no officer or candidate for office ought to accept, nor shall any officer with our consent be hereafter elected who will accept of a free pass or other gift.

We declare that all laws taxing growing crops, mortgages or book accounts, or other mere memoranda calculated to enhance interest on money which farmers and others in need have to borrow, are wrong in principle and oppressive in operation, and ought to be repealed.

We declare that it is the duty of Congress to so regulate commerce among all the States of the Union that agriculture shall not be oppressed by unnecessary burdens.

We declare that these vital questions are above all party issues.

Names of the Officers and Delegates with their P. O. Address.

OFFICERS PRESENT.—President, John Bidwell, Chico, Butte Co; Vice-Presidents, T. Hart Hyatt, Vacaville, Solano Co.; W. S. Manlove, Sacramento; Secretary, I. N. Hoag, Sacramento; Treasurer, A. T. Dewey, San Francisco.

Committee on Credentials.

On motion of R. A. Thompson of Sonoma, a Committee on Credentials was appointed by the Chair, consisting of Thompson, Dudley, Dwinelle and several others; and the committee examined credentials handed in, and reported the following as entitled to seats in the Convention:

ALAMEDA COUNTY.—Oakland Farming, Horticultural and Industrial Club.—Delegates: Mrs. J. P. Moore, Dr. E. S. Carr, Christian Bagge, C. H. Dwinelle, Oakland; J. V. Webster, Brooklyn.

COLUSA COUNTY.—Grand Island Club. Wm. Ogden, Colusa.

CONTRA COSTA COUNTY.—Point of Timber Club.—John E. W. Carey, J. H. Baldwin, Point of Timber; R. G. Dean, Thos. Murphy, Antioch; Contra Costa Club.—Geo. P. Loucks, John Larkey, Platt Gregory, Pacheco; L. P. Fish, Martinez; N. Jones, Lafayette.

Davisville Club.—R. O. Baldwin, Geo. McCamber, Davisville.

MERCED CO. Club.—H. B. Jolly, R. S. Clay, W. W. Gray, M. D. Atwater, Merced.

MARIN COUNTY—Sonoma and Marin Club of Petaluma—L. W. Walker, E. S. Lippitt, E. Denman, W. W. Chapman, Petaluma; H. S. Gibson, Theo. Skilman, (alternates).

MONTEREY CO. Club.—T. S. Hawkins, M. Pomeroy, K. Rucklidge, G. S. Nash, L. B. Lathrop, J. D. Fowler, Hollister.

NAPA CO. Club.—Wm. A. Fisher, Daniel Gridley, Paris Kilburn, Napa; James M. Thompson, Suscol.

STANISLAUS CO. Club.—R. R. Warder, John Murphy, J. R. Briggs, Theo. Turner, W. B. Wood, C. J. Cressy, L. Dickey, L. B. Walthall, J. W. A. Wright, Hart's Ranch, Modesto; R. B. Smith, Grayson; T. S. Bentley, G. B. Douglass, W. H. Davis, T. D. Harp, Jas. McHenry, proxy for Theo. Turner, Modesto.

Branch Club—E. A. Hall, S. M. Gallup, Larrouge; W. C. Crow, Joseph Dominicie, Hart's Ranch.

SUTTER CO. Club.—A. L. Chandler, Nicolaus; W. P. Harkey, S. E. Wilson, B. F. Wilson, Geo. Obleyer, John H. Kimball, Geo. F. Barr, Henry Elmer, John McIlmoil, T. B. Hall, Yuba City.

SAN JOAQUIN COUNTY.—San Joaquin County Farmers' Club.—J. L. Beecher, Stockton.

West San Joaquin Farmers' Club.—W. B. Hay, Ellis Station.

County at Large.—A. C. Paulsell, Stockton.

SANTA CRUZ CO. Farming Club.—D. C. Feeley, B. Cshoon, V. Humphrey, Soquel.

BUTTE CO. Farmers' Club—J. F. Jaggard, M. Barnes, J. F. Martin, Edward Hallet, I. R. Bennet, F. C. Lusk, Henry York, Harmen Bay, Chico; G. W. Colby, Nord.

SACRAMENTO CO. Club.—W. S. Manlove, E. F. Aiken, C. W. Holt, J. R. Johnston, J. H. McKune Amos Adams, R. S. Lockell, H. M. LaRue.

SONOMA CO. Club.—James Fulton, Fulton Station; H. P. Holmes, Wm. Rector. Jas. A. Pugle, John Adams, S. F. Coulter, R. A. Thompson, Santa Rosa.

SOLANO COUNTY.—Dixon Club.—J. C. Merrifield, H. Rohwer, J. S. Garrett, S. J. McMahan, J. M. Dudley, J. B. Bloom.

Vacaville and Pleasant Valley Fruit Association.—T. Hart Hyatt, Geo. K. Miller, Vacaville; Mrs. E. S. Carr, (proxy) Oakland.

The report was on motion adopted, and the delegates came forward and paid in their dues and signed the constitution, and took their seats.

Mr. Jaggard, of Butte, moved that the chair appoint a committee of 5 on communications—motion adopted and following committee appointed: Jaggard, of Butte; Fisher, of Napa; Walton, of Sutter; Reeler, of Sonoma; Gallup, of Stanislaus.

Order of Business.

J. M. Dudley, of Solano, moved a committee of three on order of business. Carried. And Dudley, Holmes and Feeley were appointed.

Patrons of Husbandry.

W. A. Fisher, of Napa, moved that a committee be appointed to consider the propriety of organizing the order of the Patrons of Husbandry in this State. The resolution was amended so as to make the committee consist of one member from each delegation, and was then adopted. The committee appointed are as follows: Stanislaus, C. J. Cressey; Sacramento, E. F. Aiken; Monterey, J. D. Fowler; Dixon, J. C. Merryfield; Santa Cruz, D. C. Feeley; Sutter, S. E. Wilson; Butte, E. Hottell; Sonoma, S. T. Coulter; Sonoma and Marin, L. W. Walker; Point of Timber, R. G. Dean; Merced, H. B. Jolly; Contra Costa, P. Gregory; Danville, R. O. Baldwin; West San Joaquin, W. B. Hay; Napa, Daniel Gridley; Grand Island, Wm. Ogden; Alameda, C. Bagge; Vacaville Fruit Growers' Association, T. H. Hyatt; Branch, S. M. Gallup.

J. H. McKune offered the following:

Resolved, That it is in due opinion of this Convention, expedient to establish among the farmers of this State, granges of the Patrons of Husbandry.

T. H. Hyatt offered the following:

Resolved, That members of the granges of Patrons of Husbandry now organized and to be organized in this State be invited to become members of this Farmers' Union if consistent with their rules and regulations, in accordance with the conditions of article 9 and 10 of our Constitution.

A. T. Dewey moved that the Chair appoint a committee of five on "Currency." Carried; and Messrs. Dewey, Colby, Pomeroy, McKune and Fisher were appointed.

Second Day—9:30 A. M.

President Bidwell in the chair, quorum of 63 members present. Reading of minutes postponed by vote.

Ordered that Mr. A. C. Paulsell, of the San Joaquin Farmers' Coöperative Association be admitted as a delegate.

Committee on Order of Business reported verbally in favor of the order of business laid down in the Constitution. Adopted.

The Committee on Resolutions reported as follows:

Mr. President: Your Committee on Resolutions has considered the various subjects which occur to it as of interest to the farmers of this State, and report the following for your consideration:

Resolved, That the rates charged for freights over the railroads in this State are ruinous to our agricultural interests.

2d—That in our opinion the corporations operating these roads, being the creations of our laws, are, and should be under the control of our statutes, and that the maximum rates of freights should be so fixed by statute as to prevent extortion, and leave the producer a margin of profit on his productions.

3d—That if we find it impracticable under present management of such roads to obtain a fair reduction of such freights, we will agitate the subject and insist that the railroads built by the money of Government shall be operated by the Government in the interests of the people, rather than by private persons for personal aggrandizement.

4th—That as these matters are political, we will so far make this a political body as to cast our votes and use our influence for such men for our State Legislature as will carry our views into effect.

5th—That inasmuch as the farmers of this State find themselves a prey to moneyed rings in the matter of gain sacks, we refer this matter to the Executive Committee of this body, with instructions to consider the propriety of utilizing State-Prison labor, either at San Quentin or Folsom, in the production of a sufficient number of sacks each year, for our home consumption, to be sold to the farmers at their actual cost, thus saving the profit now made from us by dealers.

6th—That our Executive Committee also consider such other remedies for the wrongs we now sustain in that regard as shall to them seem practical.

7th—That there being less tariff on the raw material for sacks, we can and ought to provide ourselves with the manufactured article without paying any margin to mere dealers in sacks.

8th—That our Executive Committee consider and propose a plan for the organization of coöperative banking, which shall put the farmers of the State in the possession of means sufficient to protect themselves from the rings formed by capitalists to appropriate to themselves the profits of our industry.

9th—That the Executive Committee be requested to propose some plan for the coöperation of farmers in each locality in the sale of their products and the purchase of necessaries, with a view to retain among the producers the profits now made by mere dealers.

10th—That our Executive Committee also consider and provide a plan for storing grain and other farmers' products, with a view to enable farmers to retain their crops till they can get for them the highest market value.

J. M. Dudley, Chairman.

Ordered taken up seriatim—.

Resolutions 1st, 2d and 3d adopted. Resolution 4th, Mr. Coulter moved to lay on table, withdrawn. It was moved to amend so as to add after the word legislature "and members of Congress and County and State officers." Amendment lost.

It was moved to strike out the resolution. Lost. Question on adoption of resolution. Carried.

Resolutions 5th, 6th, and 7th were adopted.

On motion, resolution 7th reconsidered. It was moved to amend resolution 7th by striking out words "no tariff" and insert "less tariff;" amendment carried.

Moved to strike out the whole resolution. Lost.

Resolutions as amended adopted. Resolutions 8th and 9th were adopted.

Resolution 10. It was moved by Mr. Johnson to amend by inserting, "by introducing a system of warehousing along the lines of transportation where practicable." Amendment lost. Resolution adopted.

Resolution 2. Reconsidered. McKune moved to amend by adding "and that, way freights be charged only in proportion to the distance the freight is sent with the charge for through freight. Adopted.

Resolution as amended, adopted. Resolutions as a whole, adopted. Committee upon Communications, reported as follows:

Mr. President, your Committee thinks it best not to make public the information in their possession relating to the purchase of grain sacks. But, we desire to make known to the farmers here assembled, all the information we are in possession of. And to that purpose we propose to hold a secret session, to be attended by all the farmers belonging to the different clubs now assembled—when action can be taken upon the subject that is deemed best for the interest of all.

Amended to insert 7½ P. M. for the secret session. Carried. Report as amended, adopted.

Committee on Communications submitted communications as follows:

Suggestions as to How to Move the Crop.

Mrs. J. Preston Moore, of Oakland Farmers' Club, presented the following:

By means of an Agency under the control of the California Farmers' Union, to be constituted in the following manner:

1st.—The officers of the California Farmers' Union to be a Board of Directors to meet quarterly or oftener, and pass upon all matters pertaining to the Agency to have free access to the books at all times, etc., call meetings, etc.

2d.—The Agency to consist of three departments (1) Financial. A manager to arrange sales and all money matters at home and abroad; to pay all transportation and other expenses in shipping the crop, and to have the general oversight of all the other departments. (2) Transportation. A man to attend to the receiving and receipting for the wheat, and bringing to shipping ports, making terms with railroads and vessels for carrying. (3) Shipping.—A man to attend to the loading and stowing, arranging the cargoes to the best advantage for sale. These three to constitute an Advisory Board with power to appoint clerks and agents, and subject to the Board of Directors.

3d.—An Agency in London under the control of the Advisory Board to make sales by means of telegrams and letters.

4th.—Actual cost of transportation from places of production to points of shipment and other expenses, to be charged against wheat of each farmer, and to be deducted with interest from his proportionate amount of wheat sales.

5th.—The Advisory Board to decide relative value of each farmers' wheat at time of its receipt, according to relative value in the English market at the time. (This refers to different qualities as the difference between coast and other wheat). There to be but two discriminating clauses against any farmers' wheat, viz: relative cost of transportation to shipping point, and relative quality of wheat.

6th—Money to be advanced by Agency to the farmers on, before or after receipt of wheat according to percentage that may be agreed upon by Board of Directors, say up to 90 per cent. of its value at time of reception, and balance to be paid him on the yearly settlement of the whole crop, say in June.

7th.—The yearly average of prices obtained for whole crop to be determined say in June, or earlier if possible, and each farmer credited up at sale of same and finally settled with and paid in full. This settlement would involve all the

elements of expenses and profits in the business of the year.

REMARKS.--Such an Agency would save in all shipments the 5 per cent on amount of freight and in many cases the 7 per cent. paid by the ships to the parties chartering, for instance, a vessel of 1,500 tons at £4 per ton for freight would pay 5 per cent., $1,500 commission, and paid here as soon as loaded. This arrangement would save here for selling 1 per cent. and in England 2 to 3½ per cent.

There are many minor points of detail that are not touched upon here, such as salaries, etc.. and selection of the Manager and Advisory Board that will readily occur to all on discussion, but this seems a feasible way to "move the crop" with least expense to the farmer. All of which is respectfully submitted.

Referred to the Executive Committee.

Mrs. Moore afterwards presented the following additional suggestions.

Business Credit of the Agency.

Of course the farmers must furnish this. Each club must decide the relative responsibility of its members, and enter into written obligations to meet this. The club must as a whole meet this responsibility and look to its members for their proportion in case of loss. This will necessitate the incorporation of the clubs as the first step.

The State Board of Directors will decide relative responsibility of each club based on the amount of property each represents. To make these credits available the members of each club will be responsible to the club, and the club to the Board of Directors. The Board which ought to consist of the prominent and most responsible members of all the clubs, would be responsible to the agency and thus give it the necessary credit. The exact form of these mutual obligations will have to be determined by consultation with some banker and lawyer.

There is no doubt about the wealth of the agricultural interest, but to make it available to transact their business as they wish, it must be thrown into such legal and business form as will make it a security at once certain and convertible.

Formation of a Farmers' Bank.

To reap the advantages of such a bank the farmer must own it. To do this it will be necessary for each farmer to set aside in a good year, such as this promises to be, a certain sum for the formation of the bank, and for which he would receive stock in the bank and thus participate in the profits of the bank to the amount of his stock, and as banks never pay less than one per cent. a month to their shareholders, and often more, this would be a good investment for the farmer. This bank would be under a separate agency. Each club would be largely interested in the welfare of this bank and as each club would be well acquainted with the standing of each of its members, it would be necessary, before any member could get money, to make application to the club and obtain a written recommendation from it. Thus the club guarantees each of its members to the bank, and in case of loss the club will have to pay and collect of its members whatever they fail to recover of the delinquent. This of course, is for money obtained as advances. This bank would do a regular banking business, charging the regular rates of interest, but giving the farmer the same rates as business men in the city, and the preference.

A very important subject in this connection is the warehousing or storing the wheat, in order that the rush of the sales may be distributed over a longer time, and thus holding the power over the shipping which cannot afford to wait, and giving the agency a better chance to obtain better charter parties. Referred to executive committee.

Committee on Communications also reported

Memorials and Petitions

as follows:

To the Honorable Representatives elect, and Senators of the Pacific States:

We, your constituents, farmers, and laborers and others, carrying the industries and development of the States of the sunset slope, would most respectfully crave your attention to our wants; and through you, ask of Congress relief of a grievous burden—uncalled for tax upon our industries.

The farming interests of the States of California and Oregon are carried forward with great difficulties, when compared with the same interest East.

We seek the same market for the disposal of our grain, though 3,000 miles further West, and 6,000 by the only route open to us—the sea. We have also the enormous expense of sacking our grain—forty to eighty dollars per thousand bushels; 12,000,000 sacks to move the crop of 1872, in the State of California alone, averaging not less than fifteen cents a piece to your humble petitioners, the farmers of the State. Making nearly $2,000,000 tax on the farmer to enter the market with his products in competition with his Eastern brother, and 6,000 miles more water freight too; and now, in addition to all that burden the Government has placed a tariff upon the importation of sacks, thirty and forty per cent., and material for manufacture. This is the last pound to the camel's burden, and is the chief cry we have for redress; and we would ask at your hands, that the tariff on *jute and all material for sack manufacture be removed, and all duty on sacks be taken off, as far as the ports of California and Oregon are concerned.* This would relieve the overburdened farmer of California of about one-half million dollars tax; as it is claimed by experts that the State manufactory can now compete with the foreign trade at one cent profit per sack, by the removal of tax on raw material it still has the more advantage, and we, your petitioners, will also gain, and not lose anything, as we do not raise the sack materials in the State. And we believe our Eastern brothers will not complain when they see how much we already endure; and not unmindful of the great benefits to a State of home manufactories we must say that the present Jute Company does not command our strong sympathies, as they have run the mills almost exclusively for the speculators instead of the demands of the trade, with the greatest good to the greatest number.

All of the above is most respectfully submitted, and for relief we would ever pray.

To the Honorable, the Senate and House of Representatives in Congress assembled.

The undersigned petitioners, citizens of the United States, of the State of California, respectfully represent—

That all taxes should be as equally borne by all the people of the United States, as possible. That a tax that reaches one part of the country and leaves the rest untouched, or nearly so, is manifestly unjust.

And your petitioners would further represent that in their opinion the import duty collected by the United States, of thirty to forty per cent. on our grain bags, and the material of which they are manufactured, is a tax which has almost entirely a local bearing, that it is unjust to, and discriminating against, the agricultural interests of the Pacific Coast, that while the grain surplus of the Atlantic States is moved to the seaboard, and thence to Europe in bulk, we, under an inexorable custom are compelled to put ours in sacks for which we get no adequate return; that the import duty on the sacks used in California the past year amounts to over one-half million of dollars, which is equivalent to a "direct export tax" of that amount upon the wheat crop of California, that said tax is burdensome and unjust, and we pray your Honorable Body to repeal the import duty on all burlap bags and all material of which they are manufactured, that they may be admitted free of duty, and your petitioners will ever pray.

Referred to Executive Committee.

Report on Patrons of Husbandry.

Committee on Granges and Patrons of Husbandry reported as follows:

Mr. President. The Committee to whom was committed the question of the organization of the order of the Patrons of Husbandry in this State, beg leave to report they have had the matter under consideration, and after a full discussion of the situation of the farming interests have unanimously concluded to report the resolutions which were referred to them back to the Convention, and recommend their adoption.

We will in brief state some of the reasons which have induced this action.

1st. The organization presents a medium of establishing and maintaining a better state of social and confidential relation among the farmers.

2d. The necessity of transacting our business within ourselves without publishing our intentions to the world

3d. The unprecedented success of this organization, the Atlantic States is a good evidence that it will in a measure meet our wants as an agricultural community.

The resolutions are as follows:

Resolved—That it is in the opinion of this body expedient to establish among the farmers of the State, Granges of the Patrons of Husbandry. Referred to secret session.

Resolved—That members of associations of farmers now formed and that may hereafter be organized in this State, known as Granges or Patrons of Husbandry, be invited to become members of the Farmers' State Union, if it shall be in accordance with their wishes and regulations of their several Granges, as authorized by articles IX and X of the Constitution of said Farmers' Union. Referred to committee on Patrons of Husbandry.

The Currency Question.

Committee on the currency question, reported unanimously as follows:

Resolved, That the early adoption of U. S. Currency, as the common circulating medium in California will be beneficial to the progress of the State, and for the best interests of its citizens.

It was moved to refer to the Executive Committee. Lost. The resolution was then considered, and a motion made to adopt, resulting in a tie vote, as counted by the Secretary—28 to 28. It was the ayes and nays when called for, when a motion was made and carried, that the vote be taken by counties. The opportunity being lost to gain an individual test on the question, the motion to adopt the resolution was withdrawn by the mover with the permission of his second. On further motion, laid on the table.

Additional Representatives

From the Sonoma and Marin club of Petaluma appeared, and their names appearing with proper credentials they were admitted to seats.

On Incorporating

Mr. Paulsell offered the following:

WHEREAS, *Customs* among civilized men has established certain usages and *customs* as to the doing and management of business which must be complied with, and

WHEREAS, The most important questions that affect the farmers are purely business transactions, and must be done in a business manner, and

WHEREAS, The buying of sacks and the selling and shipping of wheat are purely business transactions, therefore, be it

Resolved, That the only way for the farmers to effect definite results is to arrange and incorporate farmers' coöperative unions in the different counties backed by sufficient capital to give them standing and credit.

Resolved, That we now proceed to organize a State Farmers' Union, through which the county unions can operate, provided they desire.

Referred to secret session.

Mr. Dudley offered the following:

Resolved, that the executive Committee of the California Farmers' Union be requested to draft a petition to Congress asking for the repeal of the duty on grain sacks and all materials of which they are made; that the Committee have a sufficient number of copies of such petition printed and distribute one or more copies of the same to each of the Clubs throughout the State, and also to prominent agriculturists in localities where there are no Clubs organized, with a request that they circulate and obtain as many signatures as possible and return the same to the Secretary by the first of October next; and the Secretary is hereby requested to forward the said petitions, to our representatives in Congress, in time for them to reach Washington by the first Monday in December next. Adopted. Recess taken till 1.40 P. M.

Afternoon Session—2 P. M.

The President in the Chair, and Quorum present. Resolutions moved and adopted as follows:

Resolved, That no member be allowed to speak more than five minutes nor more than once on any question. Mr. Hallett of Butte, by leave, read an essay upon the dangers to the wheat crop of California. On motion of Mr. Coulter it was adopted. It was as follows:

The future of the market for California surplus wheat presents, I think, some new aspects.

Great Britain is the buyer of the surplus breadstuffs of all the world. She procures supplies from Russia, Austria, Germany, France, Italy, Chili, the Atlantic and Pacific ports of the United States, to which must now be added Ausiralia. The average annual import of Great Britain is about 3,000,000 of tons. The nearest sources of supply are the ports of the continent of Europe; next come the Atlantic ports of the United States; then Australia and Chili, and last California. The transit between these ports and Great Britain is by the ocean, and the cost of transportation is, therefore, in a general way, proportioned to the length of voyage. The price of breadstuff at the ports of export will be equal to the English price, less the cost of transportation thither, and less a further margin proportioned to the time required for transit, which provides for the interest on the money paid for the wheat, and the contingencies of the fluctuation in the English market. Hence, it follows that wheat at a California port must be sold lower than wheat of the same quality at the ports of any other exporting country in Christendom. And in reference to this item of quality, it must be remembered that the high grades of Baltic, of Chilean, of Australian and Western American, rate as high as Californian. The question to be investigated is, therefore, whether there is a definite prospect and danger that the surplus from those other countries which are in competition with California are likely to so supply the market in the near future as to reduce the selling cost of wheat at a California port to, or below, the cost of production.

The facts necessary to be learned in order to arrive at a judgment on this question, are not so numerous but that they can be ascertained by an inquiry, which this body may set on foot.

Some of the points to be specifically answered are, as I understand them, these:

First—As I understand, the area adapted to the growing of wheat in Western Russia and Eastern Austria is nearly, if not quite, adequate to the production of the entire surplus demand by England; that a lack of facilities for transportation has in the past prevented such production, just as lack of the same facilities prevented it in California, that with the supply of such facilities an increase of production is to be looked for, not unlike the increase which California has shown in the last, and promises in the next season. Even though the increase should not be affected in Russia with the same suddenness that has been effected by California energy, yet it may be expected to be equalled in two, three or four seasons. Also, I understand that the facilities for wheat transportation in Russia have already been supplied by the railways built by the Government during the past two years, and which are still in progress; but the reason the surplus did not increase has been that those two years were bad ones, just as they were in California in 1870 and 1871; that the Russian and European crops generally were injured by floods and excessive wet; but a recurrence of such seasons is no more to be expected than drouths in California, in fact, continual crops must be expected to maintain their "average" yield; that this average will be applied in Russia to an enormously increased area, and that this area is capable, with the increase of transportation facilities, of indefinite extension. And in order to perceive the full significance of this development, it is only necessary to remember that Russia regularly supplies two-thirds of the total English import, or 2,000,000 of tons out of 3,000,000. An increase of only one-half, therefore, in her surplus, would suffice to supply the wants of Great Britain to the exclusion of every other exporting country.

But France and Germany offer a larger surplus than that of California—which has been suspended the past two years, first by the war and next by a bad crop year—which has a prior chance in the English market; that is, which pays a lower transportation to get there; next comes the Russian surplus; and next that of the Atlantic American seaboard, paying a freight of only $5 to $7 per ton. Last of all are the Pacific ports of Chile, Australia and California, paying freights which are at the comparative rates of $12, $15 or $20 per ton—and of which California pays the highest. The difference between freights to England from New York, and from San Francisco, is never less than half a cent per pound.

Now, to show that we are not dealing with a speculative and remote danger, but with an actual and near one, it must be borne in mind that the price of first quality wheat in England in average seasons during a series of years past, has been under $2.50 per one hundred pounds, it has even run as low, if I remember right, as $2. It was sold at these prices at a profit, by the exporting countries, which are still the competitors of California, and which have since increased their facilities for transportation; that is, their facilities for laying down their surplus in England in larger quantities and at less cost than ever before. Yet at the prices of average seasons in England, in past years, California wheat would have to secure lower freights than there is now any reason to count on, in order to pay the cost of its production. With a surplus offering from the Continent increased beyond the old figures, the average English price will rule lower than there, and as we have seen, California wheat must then be shut out as a living crop.

The only point remaining to be inquired into, in this chain of reasoning, is the question whether continental producers can afford to lay down their surplus in England at the rates which will exclude California. Experience has shown that they can. But the facts attending that production, so far as I have been able to learn them—the almost nominal rates of wages paid in the wheat districts of Russia and Austria with the improved facilities for transportation to the wheat ports, satisfy me that the wheat from these districts will cut out, not only California, but will cut out the surplus of our great West, even allowing it the benefit of the cheapest possible rates of transport to the Atlantic seaboard. If these facts as here suggested are all true, it is of the first importance to California producers to know them. The production of such a surplus as we have moved the past season, with the English market quoted at nine to ten shillings, would be as great a calamity as a drought. What could be done with the wheat? Absolutely nothing. It would not pay to harvest; there are not the animals in the State to eat it; it could not be ground for flour to China. Nothing could be done with it. And so far from this being an imaginary state of affairs, it is the state of affairs which we are to expect—which is probable—during the marketing of our harvest for 1874. And all the facts of the situation can be easily learned in time for our farmers to govern themselves.

Probably most of the information is already in the archives of the State Department at Washington, in the reports of the American Consuls at Odessa, Riga and Danzig, or, perhaps, as to the new Russian railways in the documents forwarded from the Minister at St. Petersburg. Or, if it is not there, a circular from the Department addressed to those officers, asking the specific information, would produce it; and the Department at the solicitation of this body, presented through our Representatives, would not hesitate, I am confident, to issue such a circular. If action be taken now, the information can be received by this organization by the time the next harvest is fully secured, and before the work for the following year is laid out.

The facts of the situation can be laid before every producer in the State, and he will go to work with his eyes open. Later in the season, as the reports of the condition and prospects of the Continental crops are received, their full signification will be understood, and producers will act understandingly in the disposal of their crops. I believe the prospect to be, that a surplus of half a million tons of wheat in California in 1874 will not repay the cash outlay of making it; and I therefore feel that this organization cannot do a more useful thing than lay before the class whom it represents, the facts which will either confirm that belief or show it to be unfounded.

Constructing Railroads for Moving Crops, etc.

Mr. McHeury offered the following, stating his object to be to do all he could to bring California as near a good market as possible.

WHEREAS, quick transit of productions of the soil to the best markets is the best means of overcoming all difficulties of distance, and consequent obstacles, Therefore

Resolved, It is a matter worthy of the consideration of this body, whether or not it would be policy for the farmers of this State, acting as a body under the management of this Farmers Union, to offer to the several trans-continental and connecting trunk lines of railroad, the proposition for them to move the grain crop of a given season, and ask from them definite responses thereto for the information of this body, as to the proposition.

Resolved, That this subject be referred to a committee of three to report such information and data as they may gain, to this body, and to its executive committee, if gained prior to the next session of this Union.

On motion adopted.

The President named the following as the Committee: McHenry of Stanislaus; Holmes of Sonoma; Manlove of Sacramento.

San Francisco Sea Wall.

Dr. Manlove introduced the following resolution:

WHEREAS, A recent report of T. I. Arnold, Engineer of the Sea Wall, to the State Board of Harbor Commissioners, states among other unwelcome truths that said sea wall is only a dump of broken stones, and is therefore wholly useless for the purposes for which it was intended.

And WHEREAS, the farmers of California have been taxed through eight long years to the extent of hundreds of thousand of dollars for its construction, therefore

Resolved, That we recommend to the next Legislature a total repeal of the Act authorizing further appropriation to be made for the so-called sea wall.

Resolved, That we are in favor of making San Francisco a free port for all interior commerce, and that the next Legislature are requested by this Convention to abolish the present dockage and wharf charges.

Mr. Colby by leave addressed the Convention, calling for definite action on the part of the farmers. He urged unity of action and a combination of capital to fight the oppressive money rings and speculative combinations. Rings are existent in all departments of trade, in governmental and political matters, in all branches there are rings, save one—the farmers. They have no ring. They stand ready to be yoked and ringed by the nose and they will continue to be till they unite with their fellows and make up a ring with capital, the motive power of all rings. County Clubs and Co-operative Associations are some of the means to accomplish our just ends. But we must go further. Passing resolutions will not do it. We must act, organize, combine, contribute.

This we can do through some of the plans already prepared, but we must act and at once. Mr. Geo. Miller of Solano said, "We come not here to talk, too well you know the story of our thraldom; we are slaves." He then declared the horticulturists of whom he was one, wanted nothing done at once. The cat is to be belled, but who shall bell it. He wanted no more talk, but *action*.

Mr. S. M. Gallup, read resolutions considered in a local Club in Stanislaus county and offered it for adoption as follows:

Referred to the Committee on resolutions. On motion, the President appointed a com-

mittee of three, Jolly, Coulter and Gridley, to name an Executive Committee of seven.

Relative Profits of Our Agricultural Products.

Prof. E. S. Carr offered the following resolution:

Resolved, That a diminished demand for our cereals in foreign markets being a reasonable expectation, that the Farmers' Union authorize the preparation of a report by a suitable committee upon the relative profits of other agricultural products suitable to our climate with a view to the encouragement of manufactures, a better home market, a more diversified, and consequently a more independent system of industry.

Prof. Carr spoke to his resolution calling attention to the necessity of diversifying agricultural products to prevent depletion of the soil and to create home consumption, invite immigration and make up and work up home products. Adopted. Committee: Prof. Carr, Prof. Lippitt, Mr. Cresey.

At this point it was ordered that a secret session be held at this hour, 3:20 P. M. Whereupon the Convention went into secret session.

Minutes of the Secret Session. Patrons of Husbandry, Etc. April 10th.—3:20 P. M.

Ordered that the report of the Committee on Organizations and Patrons of Husbandry be taken up and that Mr. Baxter, Deputy of the Granges, be requested to address the Convention.

Report and resolutions read. Mr. Baxter, Deputy for California for Patrons of Husbandry, by request, addressed the Convention. At conclusion he was tendered a vote of thanks.

Report and resolutions then taken up and adopted. Committee on Communications then submitted letters on subject of sacks for wheat. This was followed by an informal debate and action concerning prices.

The Farmers' Paper.

The following resolution was offered by Mr. Jaggard and unanimously adopted and ordered to be made part of the public minutes.

Resolved, That we find in the PACIFIC RURAL PRESS, published by Messrs. Dewey & Co., an able defender and advocate of the farmers and their interest, and to the industrial class throughout the State, and we, the representatives of that class, desire to return our thanks to the gentlemen controlling the said paper, and that we recommend to the farmers and others a more liberal and hearty patronage of the same.

Secret session here closed. Committee on Executive Committee appointments reported as follows;

To the State Farmers' Union:—Your committee appointed to nominate an Executive Committee, beg leave to recommend the following names, to-wit: The President, John Bidwell; Secretary, I. N. Hoag; Treasurer, A. T. Dewey; C. J. Cressey, of Stanislaus; J. M. Dudley, of Solano; J. V. Webster, of Oakland; J. D. Fowler, of Monterey.

It was moved that it be recommitted to the committee to reduce the Executive Committee to three. Lost.

Mr. Dudley wanted to amend the report by striking out the name of J. M. Dudley and inserting that of Prof. E. S. Lippitt. Carried.

Mr. Cressy declined. On motion Mr. R. B. Smith's name of Stanislaus was substituted.

Mr Fowler declined. On motion the name of Wm. McPherson Hill was substituted for Mr. Fowler's.

Report as amended was then adopted.

President Bidwell offered his resignation as his residence was so distant. The committee unanimously refused to accept it.

On motion Prof. E. S. Carr was added to Executive Committee. The Executive Committee was by motion authorized to fill any vacancies in the Committee.

Adjourned until 7½ P. M.

Evening Session—Secret Session. 7.30 P. M. April 10th, 1873.

Committee on Sacks Reported.

After discussion of report ordered that a committee of five be appointed to correspond with sack manufactures and ascertain the best terms that can be made as to purchases here or elsewhere, and to report through the Executive to the various farmers' clubs.

The Chair appointed Messrs. Holmes, Dewey, Jaggard, Walker and Paulsell.

On Incorporating.

Resolution of Mr. Paulsell as to organization taken up. 1st resolution adopted; 2d resolution—Mr. Coulter moved as a substitute.

"*Resolved*, That the Executive Committee be authorized to incorporate this Union under the 19th Subdivision, Chapter 1, Title 1, Civil Code." The substitute received no second.

Mr. Paulsell asked leave to withdraw his second resolution, and leave was granted.

Mr. Dewey moved that the Executive Committee be empowered, if it sees fit, to incorporate a part or whole of itself as a business or branch association, co-operative with the California Farmers' Union, county and local clubs and incorporations, and their members. Carried.

Mr. Webster offered a resolution similar to the one presented by him on the 3d day.

Mr. Donglass offered the following as a substitute:

Resolved, That in the appropriations made by the Legislative Assembly for the encouragement of the industries of the State, that this Union ask for an appropriation of $3,000, to be equally divided among the first three grain vessels that will ship their wheat cargoes in bulk, instead of sacks, and all harbor dues be returned. Adopted.

Mr. Johnson presented the following resolution which was adopted:

Plan of co-operation for the finance department of the

Farmers' Union.

Resolved, That the members of each and all organizations of Farmers Clubs and Granges, make a monthly contribution of ten cents, payable on the last Saturday of each month, to be transmitted by the Secretary, of such Club and Granges, to the Secretary of the Farmers' Union, and he to pay over the same to Treasurer of the Farmers' Union. To be applied for such purpose or purposes as the Executive Committee may deem proper for the general good of the Farmers' Union in putting forth the matters of vital interest to Agriculturists, and in carrying out the resolutions of this Union.

Resolved, That the grand beginning made by this Union, and the effective results of its labors depends upon these means being contributed regularly, that every farmer may receive the benefits thereof.

Thanks were voted to Charles H. Dwinelle and Mr Woodson, Assistant Secretaries, and to the two Lady Delegates for their countenance and presence.

On motion adjourned until 9 A. M., April 11th.

Third Day.—9:30 A. M.

President in the Chair. Quorum present.

Minutes of the first day read and approved. Minutes second day read and approved including secret session.

Letter from Geo. W. Swan & Co. presented by the President inviting the Convention to visit the fruit-box factory in San Francisco, where they are turning out new styles of packages of California invention by new machinery. Received and filed.

The President addressed the Convention on matters concerning its Constitution and its annual meeting in September 1873, at Sacramento. Informal discussion on matters of interest here took place.

To Secure Just and Equitable Legislation,

Mr. Webster offered the following:

WHEREAS, It is deemed expedient by this Convention that some action be taken with the view to securing just and equitable legislation at the next legislature. Therefore be it

Resolved, That the Executive Committee be empowered to call a State Convention, of at least one delegate from every Farmers' Club in the State.

Resolved, That the duties of said Convention be the consideration of all enactments necessary to the security and protection of the agricultural interests of the State; to embody their deliberations in the form of bills, with the view to united action on the part of the farmers of this State in securing proper legislation.

Mr. R. G. Dean offered the following substitute:

Resolved, That a committee consisting of one member from each club or agricultural society in the State be appointed, whose duty it shall be to meet in this city or Sacramento, on call of their Chairman—prior to the 1st and 15th day of July next—to determine what legislation may be necessary for the protection of the agricultural interest of this coast, and provide means to secure the same by appointing a committee from their own members to attend the next session of the Legislature for that purpose.

It was moved that the original resolution be amended as follows: "Insert after the words, one member from each farmers' club in the State, the words, and one member for each twenty members of said club." Amendment accepted by the mover. The substitute was withdrawn. Question on original resolution adopted.

A motion prevailed to take up and refer to the Executive Committee certain propositions embodied in resolutions concerning organization of the farming interests offered by Hyatt, at the September meeting. So ordered. Mr. Dewey offered, by request, a communication on the organization of The California Marine Investment and Deposit Bank.

Referred to Executive Committee.

Prof. Lippett from Committee on new articles of Culture, addressed the Convention asking for certain facts and information to be forwarded to him at Petaluma, as to the money value of other growths than wheat.

Acknowledgements to the Press.

Mr. Dewey asked indulgence in referring to the important aid that had been freely given by the country press, in organizing and sustaining the Clubs. By the publication of the reports a live interest is gained in the meetings—the information spoken before a few, being taken up by the press, (often in improved and condensed form), presented to thousands over the whole country. Every facility should be extended to editors. If reports were omitted in the RURAL PRESS from any section, it was not intentional, but because the information was not sent to the office. Some of our city papers also, have given extensive reports of the meetings of the Union.

Mr. Gallup, of La Grange, endorsed the foregoing remarks, and moved for the hearty thanks of the Convention to such of the country and city press as had aided the Farmers' Clubs and meetings by reports thereof. Carried.

Mr. Gallup offered the following:

Resolved, That the Secretary of the Farmers' Union request our delegates in Congress to urge forward and sustain the recommendation of the Department of Agriculture for an international and home telegraph of crop reports.

2d. *Resolved*, That the Secretary of the Farmers' Union shall also apply to the Department for blanks for crop reporting, for the various clubs, and forward the same.

3d. *Resolved*, That it is hereby recommended that every club in the State elect a Crop Reporter, who shall report monthly or oftener to the Secretary of this Union. Adopted.

Mr. Gallup moved the thanks of the Convention to the reporters of the city and other newspapers for publishing reports of the Convention. Adopted.

Mr. Paulsell offered the following:

Resolved, That the officers of the State Farmers' Union are entitled to the thanks of the farmers of the State of California for their untiring efforts in behalf of the interests of agriculture. Adopted.

On motion of Mr. Dewey a vote of thanks was tendered to the Mechanics' Institute for favors extended.

On motion the Convention went into secret session.

Secret Session—11:45 A. M.

Sack Committee reported progress.

* * * * * *

Mr. Paulsell offered the following:

Resolved, That the farmers of California in all their actions have not and do not intend to make war upon any one, but simply to act up to the first law of nature—self preservation.

Adopted.

President Bidwell, on rising, spoke to a question of privilege, in reply to an article communicated to the *Alta* by a correspondent, April 11th.

On motion the convention adjourned *sine die*.

I. N. HOAG, Secretary.

J. A. WOODSON, Ass'ts Sec'y.

FARMERS IN COUNCIL.

San Jose Farmers Club.

Club met April 5th, President Casey presiding. The question selected for discussion next Saturday is, "What is the best method for retaining moisture in the soil of this valley."

Mr. Holloway asked if the productive quality of our alkali lands cannot be improved by the method of cultivation.

Mr. Bergland—"Yes, by planting potatoes or beets, especially beets."

Mr. Holloway thought that if the ground was thrown up into narrow, high lands, and the water furrows kept open, the productive quality would be much improved.

Mr. Bergland wanted to know if any one could tell him how to prevent the frost from killing the buds and blossoms of the fruit trees. He said he believed that sprinkling the trees with cold water would prevent injury. He was led to this belief from the fact that similar remedies were used successfully on frozen fruit, or on human flesh.

Mr. Holloway said it was said by high agricultural authority that evergreens planted throughout the orchard would tend greatly to prevent injury from any kind of weather.

Mr. Bergland said that he did not want two or three men to occupy the time of the Club in speaking all the time, therefore he moved that no man shall speak over ten minutes, nor a second time without the consent of the Club. The motion was not seconded.

Mr. Ware said that nearly all the clubs throughout the State were electing delegates to the session of the Farmers' State Union, to be held at San Francisco on the ninth of the present month. He therefore moved that this Club appoint five delegates to that meeting. Carried.

The following persons were appointed: C. T. Settle, ——Haskell, Oliver Coutle, James McClellen and C. Cadwell.

The question for the regular discussion was, "Resolved, that all our taxes should be paid in currency, and all our business transacted on that basis."

Mr. Bergland thought a national currency should be respected all over our country; and that this currency should be gold and silver. If bank notes are burned up they are lost, gold and silver could be recovered though it should be melted.

Mr. Holloway said the subject was a vital one; he said there was at least ninety per cent of the voting population of California who would be benefited by this measure if currency was made the medium for paying taxes. As the matter now stands, one-tenth of the people are leading the other nine-tenths by the noses. The system of coin currency has been kept up by politicians and capitalists mainly devoted to the interests of San Francisco, and it is a great shame and a great hardship.

He called attention to the scarcity of coin at the time of payment of taxes, which runs up the premium on gold to the oppression of the poorer classes. This thing of resumption, according to capitalists, is far in the future, and this makes an additional reason why currency should be introduced on this coast. The present system of coin keeps out much valuable immigration from our State. Gold and silver has no intrinsic value as money, its value is only a representative one. He said that thousands of dollars are lost and squandered in seeking after gold and silver where one dollar of paper money is destroyed, as indicated by Mr. Bergland.

Mr. Bergland said gold and silver was the currency all over the world, and was therefore preferable to currency of any kind.

Mr. Dubois said the question was what shall we have for a circulating medium; it does not make any difference what that medium is so it answers to the purpose, if it has the public confidence. I believe that the Government of the United States has good credit, at any rate, we can get coin for our greenbacks if we wish to use it in a foreign country. Greenbacks are not so bulky or heavy as gold, and are therefore much more convenient for transportation.

If you increase the volume of currency, you increase the value of property; now, if they have this volume of currency and consequent increase in value of property in one portion of the country, and not in another, it gives one section a great advantage over the other, especially when the two are trading with each other.

Mr. Woodhams said that under the old banking system there were epochs of bankruptcy occurring about every seven or eight years, caused by settlement of international balances. He had seen nothing of the kind in California.

Mr. Holloway said that the bankruptcy referred to grew out of the extravagance in commercial circles, and not from the system of banking. Even if the old system of banking was to be blamed for financial crisis, no such catastrophes are likely to occur under our national system. He thought the practice of allowing foreign nations to have the advantage of the balance on settlement was a most pernicious one; we should import no more goods than we export; we should buy no more from a foreign country than that country buys of us.

If the balance was in our favor as it should be, our currency would soon be a good circulating medium in every country with which we trade. He applied these rules to California, saying that we buy our goods where money is plenty and rates of interest low, and sell them here where money is scarce and interest high, the tendency of which proceeding is to make the rich richer and the poor poorer. With the taxes payable in greenbacks it would give us more money, reduce interest and equalize the balance of trade with other States.—*Mercury*.

Contra Costa Farmers' Club.

Annual meeting, April 5th, Vice-President Hammitt, presiding.

W. L. Hueston—Moved that the meetings for the ensuing year, when not otherwise ordered by vote of the club, be held at Pacheco; and the motion was unanimously adopted. This being the annual meeting, the election of officers was announced as the business now before the club.

Nathaniel Jones was nominated for President, and unanimously elected.

L. I. Fish, Orris Falee, and Platt Gregory were elected Vice-Presidents; R. B. Miller, Recording Secretary; G. P. Loucks, Corresponding Secretary; and John Larky, Treasurer.

Mr. Porter—Had hoped Dr. Hough would have been at the meeting to exhibit his new rotary blower for forcing sulfocating fumes into the squirrel burrows, a light and handy appliance which he believed could be used with excellent effect. He believed it had been tested to some extent by Mr. Fish and would like to hear what he thought of it.

Mr. Fish—Had not tried it sufficiently to pronounce positively, but liked its operation as far as he had tried. Thought, however it would be most useful in doing the finishing work of extermination after the general field work had been done with poison. He wanted to see some effective measure adopted that will insure a riddance of the squirrels. Every man could clear them from his ground, but cannot keep it clear if his neighbor is negligent or obstinate and breeds them to overrun and restock the country. The perpetual tax for partial protection of crops and by their destruction was enormous, and there should be some compulsory measure to ensure the extermination of squirrels.

Mr. Gregory—Thought Mr. Fish had understated the losses suffered from squirrels. He believed they aggregated a larger sum than all the direct and indirect State, County and Federal taxes combined, and that the people should adopt a determination to rid themselves of the evil by Legislative recourse.

Mr. Loucks—Asked if any one had tried vinegar as a solvent for strychnine?

Mr. Hammitt—Had found strong vinegar a very effective solvent for strychnine, but had not carefully enough noted the effect of the poison prepared with it to give an opinion as to its being better than that otherwise prepared.

Mr. Fish—Had tried vinegar as a solvent but with only partial success. Thought there must be some agent that could be employed for the purpose with more advantage. Was satisfied that much strychnine was wasted in the various methods now generally followed in its use. Believed that half the quantity now used, if finely reduced and thoroughly distributed through the wheat would be more effective. He thought some of our chemists would be able to tell us how it could be best prepared.

Mr. Porter—Believed Prof. Carr the best authority to apply to for the information, and moved that the Corresponding Secretary be directed to ask him to name the best agent for dissolving strychnine and boiling it in solution

for nse as sqnirrel poison; and the motion wss adopted.

Mr. Hueston—Thought it desirable that an invitation should be given to Professor Carr to lectnre for the Club; and moved that he be invited to do so at the next regnlar meeting on Satnrday, May 3d. The motion was adopted.

Mr. Fish—Moved that the clnb open correspondence with the clnbs of Alameda, San Joaqnin, Santa Clara and San Mateo connties with a view of seonring their coöperation in framing and obtaining the enactment by the next Legislatnre of a law for extermination of sqnirrels. The motion was adopted.

Mr. Porter—Gave notice that at the next meeting he would move an assessment of fifty oents each npon members of the club, to meet contingent and accrued obligations.

Qnite an interesting discnssion upon methods of cnltnre, the harrowing and rolling of growing crops, was participated in by various members. Mr. Fish snggested that all should experiment in vsrious modes, carefully note the conditions and result and report them for mutual instruction and profit. Other members concurred in the suggestion and engaged to act upon it.

The objects of the State Farmers' Union were discnssed in a general way and the delegates of the club were instructed to act therein for the club as their unitod judgments should dictate.

The Club then adjourned to meet at Pacheco on Saturday, April 19th, 1 o'clook P. M.

Richland Farmers' Club.

A meeting of this clnb was held on Tuesday, April 1st, President Brown in the Chair. Four new names were proposed and received as members. A communication of the Fairview Farmers' Clnb was read and placed on file. The sqnirrel and gopher subject was discnssed by varions members of the club. Mr Rice recommended strychnine as the best exterminator, if properly managed, while other members thonght that cats and water were equally as good.

President Brown said that the oats were mysteriously killed, and it was snggested that the badgers and wild cats were the destroyers. A. A. Talkington offered the following resolntion: That this clnb recommend each member to take some measnre to destroy rabbits, squirrels and gophers, *provided*, that if strychnine is used, it he pnt out on Saturday evening and Sunday.

The snbject for discnssion at next meeting, "Co-operation." A committee of five members was appointed to report at the next meeting of the club, the number of trees and vines planted in this district. Adjourned for one week.—*Southern Californian.*

Vacaville Fruit-Growers' Association.

Met April 12th. President Bingham in the Chair. G. K. Miller, one of the delegates to the Farmers' Union Couvention held in San Francisco commencing April 9th, being called on, reported the proceedings of the Convention, and stating that he found members of said Convention wide awake and full of zeal, and determined to make their power felt throughout the State.

A resolntion was then offered by G. K. Miller, as follows:

Resolved, That the Vacaville and Pleasant Valley Frnit-Growers' Association do at this meeting dissolve, and recommend to any and all of its members to join the ranks of the Patrons of Husbandry or Grange. The resolution was nnanimously adopted, and the Association was then and there dissolved.

The farmers and producers are alive to their interests, and determined to make the efforts of the Patrons of Husbandry a success.

J. Huekins, Cor. Secretary and Reporter.

Dixon Farmers' Club.

Met April 12th, President J. C. Merryfield in the Chair. The delegates to the California Farmers' Union who were also a committee to purchase sacks reported. The report was received and placed on file. On motion of Mr. McCune it was ordered that the committee still have power to purchase sacks should a favorable opportunity present itself.

The question of a more efficient organization was discussed at some length by Messrs. Merryfield, McCune and others, urging the formation of a Grange of the Patrons of Husbandry or of incorporating, but no definite action was taken. After some discussion of other subjects the Clnb adjournod to meet Saturday, April 26th

J. M. Dudley, Secretary.

Yolo County Farmers' Club.

Clnb met Saturday, April 5th. F. S. Freeman, Vice President, presiding.

W. M. Jackson reported verbally on the price of sacks.

On motion of N. Wyckoff, the following committee was appointed by the club to take snbscriptions from farmers and ascertain the nnmber of sacks they would have to purohase. W. M. Jackson, F. S. Freeman and N. Wyckoff were elected such committee.

The Storage question was discussed at some length, and on motion of N. Wyckoff was laid over.

On motion of W. M. Jackson, the hour for the meeting of the club was fixed at 2 o'clock, sharp.—*Mail.*

Agricultural Notes.

CALIFORNIA.

ALAMEDA.

Gazette, April 12: Severe Frost.—Thursday night of the 3d is said to have been the coldest experience in Oakland since the year 1854, nineteen years ago. We know that ice formed a quarter of an inch in thickness at Berkley, and that no inconsiderable damage was done fruit trees and shrubbery. The cereal crops were too far advanced to be materially affected by the frost. In some places in the county the mercury fell to 32°.

Transcript: We have bad three very heavy frosts which bave injured yonng vegetables very mnch, such as young potatoes, beans, etc. I don't think the currants have suffered much, but a continuation of this thiug will not be very healthy for the frnit-growers.

AMADOR.

Ledger, April 12: Fruit Killed.—The heavy frost which fell tbe early part of this week has damaged nearly every kind of frnit, which was in bloom in this section. The peach crop will be almost totally killed. The grapes may revive and yet come out, bnt several witb whom we have spoken say they fear tbat the frosts have blighted them too much. Tbis state of affairs we are really sorry to hear, as no part of the State looked so promising as regards a bountiful supply of fruit as did Amador county.

Farming Prospect.—From every portion of the county we hear the most encouraging reports about the fnture grain crops. Every hillside and valley is cultivated and thousands of bushels will be raised this season in excess of any former year since our farmers have given their attention to cereals. Tbe late heavy frosts may affect the advanced fields of grain, but with a few gentle falls of rain we anticipate no failure anywhere.

Our friend "Jotham" expresses onr sentiments when he says that all we want is good and reliable informalion from all around the county to secnre tbe proper kind of emigrants from abroad. The local press is the proper channel to send forth to tbe world snch informstion, and they are every ready to publish it, but the very ones who most desire such emigrants to come amongst ns are the most indifferent snd oareless about forwarding any informstion to their county papers.

Letters after letters may be written to papers at a distance but all to no effect, for intelligent readers invariably look for snch information in the local papers. Good news items are copied by our exchanges all over the country, and thereby receive a better circulatiou than by any private letter that may be written.

CALAVERAS COUNTY

Citizen, April 12: Rain! Rain!—Unless we have rain, and that within a few days, our mountain crops will be a failure. Already tbe grass has gone to seed, and is not long enough for the stock to get a good bite at it. Shorter grass, or worse looking crops, for the season of the year, has rarely been seen in the mountain counties. A good rain, however, would do much toward saving the grain crop. Wheu excessive rains prevail in the month of February, we usually have dry spring westher, which is unfavorable to our crops. This season is not an exception to the rule.

Sheep and Wool.—Within a circle of ten miles, taking Miltou as the center, there are not tess than 55,000 sheep. Tbe wool from them is now being clipped aud brought to the stations on the road for shipment to the Bay to find a market.

Frost.—Last week we had three heavy frosts, completely destroying all the grape vines and frnit on the west sides of the Gopher Hills and San Joaquin. If this present wind and dry weather continues another week, the grain and grass crop in the uplands will be ruined, and in the valleys mnch damsged.

CONTRA COSTA.

Gazette, April 12: Rain Needed.—Complaints and fearful forebodings are beard on every hand in regard to the crops. The grain has never been in a more promising condition, than up to the first of the present week, but the drying north winds on Monday and the subsequeut warm weather has caused much anxiety on the part of all.

Tuesday evening the sky was overcast with leaden clouds and there was every indication of rain, but Wednesday morning sun banished both clouds and cherished hopes. The fate of many pieces of late sown grain depends entirely upon whether we have rain showers or not, in fact farmers tell us that much of their most forward graiu will only make hay nnless more moistnre falls.

Six millions of dollars difference in the pockets of the San Joaquin farmers. It is not yet to late; a large majority of the grain fields are not yet actually suffering, yet many days of drying weather would have a perceptible effect in producing a yellowish tinge.

Frost.—The frost of last Saturday morning following the hail storm and light sprinkles of the two preceding days was one of the keenest, we have ever known at this season of the year, and it was very severe on the early forming fruit and the grape vines through our valleys generally, though some localities escaped untouched. At Martinez we have failed to find any sign of its blight, but at Pacheco and the vicinity around, its effects were very damaging, and we have noticed with regret that all the young shoots of the lately trimmed road-side locnst row, belonging to the Fish Brothers, are as dead as herring bones; but we hope to see them soon replaced with a new growth.

Dry.—Notwitbstanding the hoar frost signs and the repeated clouding up of the sky, the needed and looked for rain does not come. The early sown grsin does not yet suffer, and the later sown can weather it for a while yet; but the hills are losing some of the freshness they had ten days ago; and if they go as much longer without showers that will feed the grass roots, their glory for the season will be gone and the stock left with short pastnre. We have faith, however, that the season is not "going back" on its modern promises, and that it will give us the needed showers before we are past their help.

EL DORADO.

Republican, April 10: The recent severe frosts have done considerable damage to the fruit crop throughout the County. Early fruit, such as peaches snd cherries, have snffered the most severely. We understand that at Coloma, Uniontown and Kelsey the damage has been very great and that from present indications there will not be at Coloma, Uniontown and their vicinities more than half the usual crop of grapes.

At Gold Hill, Missouri Flat snd this city and otber elevated points, the damage has not been half so great as in low places, and along the margin of water courses. Singular as it may seem the greater the elevation in tbo frnit growing range the less damage to the frnit crop. We understand thst this bas been the experience of former years, and is suggestive to those who are about to plant orchards and vineyards, to plant on high ground.

Democrat, Ap il 12: The Frosts and the Fruits.—The heavy frosts that were general throughout the central portion of the State on the nights of Thursday and Friday, April 3d and 4th, were qnite destructive in some portions of our county. In the neighborhood of Placerville the damage to the apple and pear crop will, perhaps, amount to twenty or twenty-five per cent. of the amonnt that seemed probable before the frost. In the neighborhood of Gold Hill there was hardly any damage done.

At Coloma and Uniontown tbere is much depression of spirits among the orchardists and vine-growers, fears being entertained that the entire grape and peach crop is utterly destroyed, and that the other frnits will be very short, less than half a crop. However, we are inclined to think that the people of those vicinities are worse scared than hurt, and that tbere will be a development of dormant buds even on the trees and vines that seem most seriously damaged.

Crops. — A correspondent informs us that crops are suffering very much for rain in the lower portions of the county, and that they will be very light unless there is rain soon. So far but little injury has been done to the fruit by frost.

LAKE.

Bee, April 12: The Frost.—We are glad to note that the heavy frost of Thursday and Friday nights, April 3d and 4th, caused but little injury to the crops or fruits in this county.

NAPA.

Register, April 12: From Berryessa, April 4, 1873.—The late frosts have played the mischief with all esrly fruits in this section, as elsewhere. We have had quite severe cold weather; hail falling to the depth of half an inch, st the summit on Berryessa grade, Friday noon.

Farmers are now engaged in cutting their esrly grsin to save it from falling. Crops gencrally are looking finely.

Ed. Bragg starts for Idaho with 150 head of horses about the 15th of this month.

Mr. Bettorff has at his place a curiosity in the poultry line, i. e., a three legged chicken—just hatched out. Probably to fill an order from Barnum.

Wm. Williams and Jas. Colman, last week, barely escaped fatal consequences from inhaling phosphorus, a poisouous substance nsed to kill off squirrels.

Reporter, April 12: Napa Wheat.—We copy the following from a letter to Mr. Wm. Imre, from his brother in Iowa in regard to wheat received by him, an account of the shipping of which appeared in the Napa *Reporter* some weeks ago. "The wheat you sent me arrived in good order. The freight charges were $3.50 per hundred. It is the 'nicest wheat that ever was seen in this part of the country. I have seen nothing like it, nor has any one seen it but concur in calling it the nicest whoat they ever saw.

Our wheat would not be called good screening beside it. If it does as well as it looks, I believe I could easily dispose of a car load or two of it for seed another year. We are having a very late Spring here, and there has uot boen much sowing done as yet. We have had the most severe winter here wo have ever known. It commences early and is likely to hold on late."

Snow and Sleet.—On last Friday afternoon, Napa county was visited hy an unprecedented phenomena; a storm of rain, hail and snow. The mountains were, Saturday, beautifully crowned with snow. Frlday evening after the storm, the weather cleared off, and one of the heaviest frosts ever known at this time of year visited, not only this valley, but principally the whole State. Fruits of all kinds and garden vegetables snffered sevcrely.

The wbeat and other grains throughout the couutry, never before looked so well. There is some danger of the growth being so rank that it will fall.

Blackened.—Very few kinds of trees escaped the continued freezing of last week in Napa City. Locusts, maples, and even poplars have suffered, though numbers of these escaped. In the Court House yard many of the locust trees sre blackened irrespective of age, probably owing to the youth of their new shoots.

PLACER.

Herald, April 12: Weather and Crops.—Perhaps we should not complain of tbe weather yet, or despair of crops. The farmers of Placer are fortunate in having a soil that stands drouth well, and what are termed dry seasons elsewhere in the State, are generally the most profitable years to the farmers in Placer county, they having geuerally, even in these seasons, fair yields, and obtaining better prices for their surplus.

We have had next to no rain for nearly forty days, and yet our agriculturists do not complain much except that the ground is too dry to plow for next year's Summer-fallow. The critical time with wheat and barley has passed, the heads having formed, and the yield that follows depends entirely upon weather, and capacity of the soil to retaiu moisture.

The dry, blighting north winds that prevailed a few days ago did much damage to grain prospects. These winds are more blighting to grain fields than the absence of rain. On the whole, there is not yet any real reason why our cultivators of the soil and fruits should be discouraged.

Freaks of the Frost.—On Thursday and Friday of last week we had severe frosts, doing more or less damage. At Thre'kill's rauch, Nickeson's, and other points from two to five hundred feet lower than Auburn, vines, plants and frnits were considerably injured, while here on the hills, and even higher up in the mountains, nothing, to speak of was injured.

This we have known to be the case over and over again in the foothills. We have no donbt of the cause of these seeming freaks of the frost, and we may now as well give our theory to the public. The richer, moister valleys in the foothills furnish heavy dews at night, which, when tbe temperature falls low enough, freezes, thus destroying fruits, buds and tender plants.

There is an npper cnrrent of dry air that sweeps over tbe hills and elevated hillsides and plateaus, from the ocean and great valleys in the day and from the Sierra at night. These take up the dews that might otherwise form on the vegetation there and thus prevent frosts. The time is coming when the hills will be chosen as the favored spots for the most tender fruits and vegetation, and water for irrigation is all that delays that day.

SANTA CRUZ.

Sentinel, April 12: Frost.—The late cold snap nipped grape leaves and blossoms near town. The fruit crop don't appear to be injured. Friday, April 4th, a visitor left for New Almaden mines, via. Soquel and the Los Gatos route. A letter states that just above Soquel, a heavy shower of rain fell; soon after it commenced hailing, which continued until the ground was covered. Then snow commenced to fall, which soon covered tbe hail, followed by cold winds, and a disagreeable time generally. Such weather in April is unprecedented in California, especially on the sea coast south of San Francisco, while many of the mountain flowers (including the beautiful azaleas,) are in full bloom.

SONOMA.

Flag, April 10: Damaged by Frost.— On Wednesday, Thursday and Friday mornings of last week frosts appeared in most parts of the State, and much damage resulted therefrom. Reports from Napa county say that the grape crop is entirely ruined. An immense amount of damage was done to gardens in Alameda county, near San Leandro. In the southern part of the State the damage was slight.

In this vicinity the fruit prospects have been seriously damaged. Chas. Alexander says that the peach and almond crop in Alexander Valley will be total failures, while the apples will be short and the grapes are much hurt. It is to be hoped that these estimates of damages have been over stated.

Democrat, April 12: Damage by Frost.—On Thursday night, the 2d inst., we had in this section a severe frost. The weather had for several days been raw and cold. The wind blew steadily from the northwest. On Friday during the forenoon it was so cold as to be a subject of comment and remark. About two o'clock in the afternoon a very heavy and threatening cloud formed to the north of this place. Shortly afterward we had quite a hail storm. When the cloud passed instead of the expected shower it revealed the hills covered with snow, and the snow line was lower than ever before known in this locality on the 4th of April. At sundown it was clear, and for this climate and season severely cold. A heavy frost was dreaded and it came. On Saturday morning the plains were almost as white with frost as the hills with snow. It was at first supposed that all the fruit was killed, and unquestionably much damage was done, but the first reports as usual proved worse than the actual fact, as has since been proved by careful examination of many orchards.

SOLANO.

Chronicle, April 12: The Weather.—The early part of last week, was remarkably mild and pleasant, but Wednesday a perceptible change occurred. The cool, moist southwest wind gave every assurance of rain. Thursday

[Continued on page 252.]



Colima.

[Albert S. Evans' Last Poem.]

O beautiful, bright, brown woman,
With the oval Moorish face,
Black hair gleaming purple in sunlight,
And a wondrous charm and grace

Of form, and manner and carriage
That Nature, not Art, bestows,
And eyes that dart on the beholder,
Light that flashes, and burns, and glows.

Come hither, and tell me the country,
The season, and the year of grace,
If I am awake or but dreaming;
Tell me my name and my race.

What is this swathed around my bosom?
Why do I thus breathe in pain?
Why rushes the blood like a river
Of molten flame through my brain?

What name beareth yonder mountain,
Whose summit with fire is aglow?
What do I here with the palm trees
Waving over me to and fro?

What are those gray, crumbling ruins,
Their stories of war and of woe?
Whence came that strange wild music,
Like echoes from ages ago?

Whose are yon stalwart soldiers;
White-clad and dark-browed and strong?
What means that blare of the trumpets,
And roll of the kettle-drums long?

Why move they forth from the portal,
With the measured and heavy tread?
Who walks there in chains between them
To the mournful March of the Dead?

"Speak low, *pobrecito*," she murmurs
In the soft Castilian tongue;
"Like a hero you fought *los bandidos*;
The troops came in time—you are young.

"The chief of the robbers was taken:
He is marching now to his death."
A volley rolls up from the river:
"He is gone!" and she bating her breath.

Makes the sign of the cross, and, kneeling,
Breathes a prayer for the soul that has fled,
Then rises to smile on the living.
"Let the dead past bury its dead!"

Standing beside me, she whispers,
"When the old duenna is near
'Twere best not to call me Juanita:
She'd watch me more closely, I fear"

Who knoweth the heart of a woman?
Why should I hasten away?
There is a balm in the air of Colima:
The eyes of Juanita said, "Stay!"

So I lingered long in the Tropics,
And still, though with love I am done,
I wander in dreams in thy gardens,
Colima, beloved of the Sun!

—Albert S. Evans.

Education in Newspapers.

A foreign publication says the majority of persons who subscribe to a newspaper regard it in too narrow a point of view. They regard it as a gossiping visitor who affords amusement or instruction to themselves. This it is, of course. But it may fulfill a more important office in a household. It may become a powerful auxiliary in the intellectual improvement of the young. The boy who reads aloud a good newspaper for the elder members of the family cannot fail to be advanced and elevated by his occupation. Such an exercise will gradually wean him from the puerilities, follies and toys of childhood. It will fill his mind with varied, curious, useful and solid knowledge. It will educate him unconsciously. It will, to use a vulgar phrase, make a man of him. This might be demonstrated by the example of America. One of the reasons why young Americans are so intelligent, so enterprising, so "wide awake" is, that in their boyhood their mental aliment consisted in a great degree of newspapers. School-boys in America not only read, they sometimes write newspapers. In consequence of this, the young, keen-eyed American is not only abreast of contemporary events, but he projects his mind into the future. He makes "the time to come his own." All that wonderful variety of curious invention which characterizes America may be attributed in some degree to the precocity produced by newspaper reading. It has often been remarked that if England rule the sea, if France or Prusia rule the land, the future is the dominion of America The newspaper leads their young men, as it were, to the bright horizon of human knowledge, where, like the Arcadians pursuing the sun, they stand aloft and contemplate the golden effulgence, when, lost to other eyes, it illuminates the enchanted regions of the untrodden future. They do not think of what their country has been; but what it will be. They anticipate the time when America will be as populous as China, as military as Prussia, as maritime as England, as powerful as pagan Rome in the plenitude of its imperial domination. They not only do this, they endeavor to make their own country what they imagine.

The youth of America are, generally speaking, able to discuss the important questions which agitate the minds of the greatest statesmen. In reading the eulogies of eminent men, which so often occur in the newspapers, a spark is sometimes struck, a flame kindled, a love of fame engendered, which animates them through life to struggle for a prominent position in society. There is no discription of literature which excites so much attention in the old (and consequently makes so great an impression on the young) as a good newspaper. The pinions of the intellect wax strong in the perusal, and become capable of a wide range of profitable excursion in the world of inquiry.

To read a modern newspaper requires a great amount of information. Without a knowledge of geography for instance, a newspaper is unintelligible. No boy who understands a newspaper can grow up a dolt, a mope, a child-man. He must be capable of conversation on the greatest subjects of popular discussion. In short, the father who refuses or fails for the sake of a paltry expenditure, to introduce a newspaper into his household, deprives his children of a great intellectual inheritance. He inflicts an irreparable injury on his offspring.

A Carpet-Wearing Nation

When we consider the vastly greater, amount of carpetings used in proportion to the population of this country compared with any other, we must admit that the reason of it lies beyond the mere circumstances of comfort our people are able to afford. It is owing to an entirely different adaptation and use which they have found for the carpet. While elsewhere the carpet is really an article of luxury, and is confined to such places as will serve to display its beauty, as in halls, stairs, and parlors, and the best bed-chambers, here they are to a great extent bought for the saving of labor, and for the comfort they furnish. Let us not be understood as saying that our people are less swayed by fashion and custom than others. We admit that nowhere is conventionality so universally obeyed as here, but in this matter of carpeting houses, other causes than a desire for display, are at work. This is shown by the habit our people have carpeting everything, from garret to cellar, in places seldom seen by outside parties, finding it pays if judiciously done.

So universal has this practice of covering the floors become, that the floors themselves have almost ceased to be regarded as of any account; and it is astonishing to see the miserably poor floors placed in some houses, otherwise convenient, elegant and pretentious.

The popular carpet with us must be something that will serve as covering for parlor, and other places where elegance is the object and when the first beauty is once worn off, will serve another term of existence in some other place where hard wear is required without so much regard to beauty.

Boys.

What to do with the boys is a question which sometimes troubles wise heads. I know some people consider them a sort of nuisance, and capable of making any amount of noise, and always ready for mischief, whether it be pulling the cat's tail, teasing little sisters, or playing with powder and matches in the barn; but with all their pranks and capers, I like them, and consider them a very much mis-used portion of society. Boys are very much what we make them by our treatment of them. Girls are nice little bodies, so we dress them nicely, make birthday parties for them—but a boy's birthday party, who ever heard of such a thing? and as to fixing them up, why that is altogether out of the question. But never mind, boys; while the girls are confined indoors to prevent their clothes from becoming soiled, you can climb trees, fish, build dams, and have more real fun than could be gotten out of the most splendid suit of cloths in town, besides building up a strong consitution in your already robust little body.

A Mother's Bed.

A mother's bed is like a mother's heart and both are like the proverbial city omnibus. So we thought this morning as we tiptoed into the sick-room of an invalid sister. Just as the day dawned, little four year-old Willie, who sleeps in a crib beside mamma's bed, awoke and whispered, in such entreating tones as would be very difficult for even a sick mother to refuse. "Mamma, can't I come in your bed just for one wee napie?" Of course Willie cuddled in beside baby Eddie, and in a few minutes was fast asleep.

Presently little Bell's curly head bobbed in at the nursery door, and "Mamma, is there room for one more?" was queried, scarcely above a whisper. "Yes, dear." "Then I'll come too!" laughed roguish Nell, who by this time was peeping over her twin sister's shoulder. By the time they were duly kissed and tucked in, baby was awake, and perceiving his brother by his side, nestled toward him and gently patted his cheek, till Willie opened his sleepy eyes, smiled, exchanged kisses, and without speaking a word, threw his arm over Frankie's neck, and with their cheeks close pressed together, both dropped into a sweet sound sleep. Glad tears filled the mother's eyes, as she ejaculated, "God grant that their love to each other may be ever as beautiful and spontaneous!" while their auntie longed as never before for an artist's skill, feeling that she would need make no draft on the imagination to paint a companion piece to "Raphael's Angels."
—*Aunt Alice in Rural New Yorker.*

"Childless From Choice."

Only silence and vacancy, and barrenness! We contrasted this starved, vacant, poverty-stricken home—surrounded by flocks and herds, and broad acres, *silently* set in a frame of evergreen, fir-fringed hills, relieved by grand mountains, snow-capped and cloud-crowned, lying against the blue sky—with the thousands of little nests of humble homes, where children were gladly welcomed and lovingly cherished. We see them in the morning, dimpled, and crowing with delight. Baby's fat hands grasping the rattle-box or reaching for the sunshine. Little Esther, peeping through the pickets at the chickens. Arthur helping about the breakfast. Willie bringing chips and planning a kite. Eddie and Renie, gentling the colts and cows. All busy as bees; all dearly loved and loving. True, the day brings toil and self-denial; but the night folds its gray mantle over a harmonious household, whose father and mother—the united head—can feel their dependence, as children, upon the dear *Heavenly Father*, and are far happier than any childless family in the world.

Mothers, who desire their children and live in harmonious, loving relations, very generally have better health than those who do not have children. They have greater powers of endurance, more genius, more ambition, more pride, more self-respect, more hope for the future, more joy in the present. When old age comes, they will be more respected and beloved, more self-respected and loving.—*Pac. Journal of Health.*

Street Dress.—The announcement is made that fashion will require ladies to wear short dresses in the streets this Summer, but we are unable to give it credence. It sounds too much like common sense. Such a change would injure the importers of silks, the dressmakers and laundresses It would deprive poor women of excuses for getting new dresses. It would make time hang heavy on their hands, by depriving them of one of their pleasantest occupations—cleaning off the tobacco juice, mud and other filth mopped up from the sidewalks. They would no longer be able to thoroughly enjoy either the slush of Winter or the dust of Summer. Such a change would be inconsistent with the general spirit and purpose of fashion, and therefore is not to be believed until it becomes an accomplished fact.

Polishing.—It is rough work that polishes. Look at the pebbles on the shore! Far inland, where some arm of the sea thrusts itself deep into the bosom of the land, and, expanding into a salt loch, lies girdled by the mountains, sheltered from the storms that agitate the deep; the pebples are rough, not beautiful; angular, not rounded. It is where long white breakers roar, and the rattling shingle is rolled about the strand that its pebbles are rounded and polished. As in nature, as in art, so in grace; it is rough treatment that gives souls, as well as stones, their lustre. The more the diamond is cut, the brighter it sparkles; and in what seems hard dealing, there God has no end in view but to perfect his people's graces.

Young Folks' Column.

Boy Heroes—No. 3.

The Boy that would Not Tell.

There are few things that do more to degrade a boy in the eyes of his companions than the habit of "telling" on his associates — especially in matters of little consequence—and thus assuming the character of a tale bearer. We have often admired the character and decision of some boys in this respect. We have seen them even draw punishment upon themselves rather than "tell" of another. This character not unfrequently rises to the heroic, as will be seen from the following:—

During the wars of the Great Napoleon, a lad named Nesbit, the son of an officer was wounded while acting as ensign. His wounds were regarded as fatal, and as the battle was raging fearfully, no effort was made to give him medical help.

"I might live if my wounds were dressed," he said imploringly.

Seeing his distress a Frenchman resolved to put an end to his life by applying the bayonet and he inflicted another dreadful wound. While thus lying alone, his life blood ebbing away he was discovered by his father.

"My soul!" exclaimed the parent.

"Dispatch me," bravely said the son.

"Dispatch the, my son. The Count has ordered us to bring you to the camp."

He was taken to the camp, his wounds were dressed, and he lived six hours in terrible agony. His father watched by his side.

"My son," said the officer, "collect but strength to tell me the name of the soldier that bayoneted you, and I swear by the honor of a soldier that he shall be broken upon the wheel."

"My dear father, I know him not, and if I did, I would never tell!"

Little Things.

A great deal of ship-building was carried on at our navy-yard during the war. Two thousand men or more were at work on gun-boats and iron-clads. Heavy timber, lay in every direction. How many strokes of the ax were necessary to hew and shape it to its proper ends! Walking round one day, we noticed curious small marks on the wood, made with chalk, some round, some square, some oblong, They were not in any regular order, showing how part was to fit part, and so we asked, "What do these marks mean?"

"Flaws in the wood," said a workman, "worm holes and specks of rot. The timber has to be carefully examined, and all these promptly remedied. They must be cut out, and a sound piece of wood mortiсed in or a bolt driven in, else they spread and do damage. Many a fine ship has been lost by not taking them in time."

Who would think a little worm hole or a speck of rot had to be guarded against like that? What harm could a small flaw do to those giant timbers? Ah, they spread that is the harm. Just like little faults, I thought; small bad habits, which, if not checked and corrected in time, will grow. There is the danger. They will grow and spread, and weaken everything that is good and sound. Taking things without leave when you are a child, may make you to be a robber and a thief or a defaulter when you grow up. Little deceivings will lead to falsehood; white lies will soon turn to black lies; cross, fretful words grow to cross, fretful tempers. A cigar and a glass of beer, which, I am sorry to see, little boys are sometimes so foolish as to indulge in, will form those drinking habits which so often become their ruin.

A Hint to Boys.—The Auburn (N. Y.) *Democrat* advertises that "A boy that neither drinks, uses tobacco or profane language can find an excellent opportunity at that office to learn the printing business." The fact ought to be well known that no first class employer will accept a smoking boy, when he can get one free from such vices. We hope that the young readers of the Press will take the hint.

The blossom cannot tell what becomes of its odor, and no man can tell what becomes of his influence and example, that roll away from him and go beyond his ken on their mission.

Useful Information.

Magic Paintings.

It is a fact well known to chemists that many salts undergo change of color when heated. Sometimes this is due to the loss of water, at others, it is due to a change in the molecular condition of the surface.

The red sulphide of mercury, known as cinnabar, turns black when heated, and its original color returns on cooling. For this reason, it has been proposed to use it for painting journa's and journal boxes, not easily accessible, but in plain sight. The change of color would indicate a "hot box."

The salts of cobalt are so sensitive to slight changes of temperature that they have long been used as sympathetic inks. By writing on white paper with a dilute solution of chloride of cobalt, the writing is invisible until the paper is warmed.

The beautiful red iodide of mercury becomes yellow when heated; the yellow iodide of silver and mercury becomes orange red; and the scarlet red iodide of copper and mercury turns a deep black. By a judicious selection and arrangement of these colors very striking effects are produced on warming. A bunch of half-ripened blackberries, for example, if painted red, instantly ripen to a deep black; red roses become yellow, and yellow lemons turn into deep colored oranges.

A winter landscape may be painted in such a manner, that, when warmed, it is converted into a summer landscape. The white sky, painted with chloride of cobalt, becomes blue when heated; the grass and foliage on the trees are painted with chloride of cobalt and nickle, which turns green when heated; the berries and red flowers are colored with dilute nitrate of cobalt solution, and appear red when heated; for the blue flowers, a solution of pure acetate of cobalt is employed. The outlines of the picture, as well as those objects, which, like houses, trunks, and branches of trees, etc., are to remain of one constant color, are painted with the ordinary water colors.

How Gas was First Introduced.—It is now sixty-six years since Pall Mall, London, was lighted with gas—the first street of any city so illuminated. The idea of using carburetted hydrogen gas for purposes of illumination first occurred to Wm. Murdock, Ayrshire, Scotland. He made his first experiments in 1792, and six years later he succeeded in lighting up the engineering works of Watts & Boulton, at Birmingham. Murdock was a sagacious man, worthy to be associated with Watt. The merit of bringing gas light to London, however, belongs to a German named Winsor. He was an enthusiast, and employed all the arts of quackery and fanaticism to convince the benighted Londoners of the merits of his scheme Sir Walter Scott did not believe in this German genius, and actually called him a madman; and even the liberal mind of Sir Humphrey Davy failed to take in the idea that gas was applicable to purposes of lighting houses and streets. Winsor, however, stuck to his business; he won supporters; and one night a long line of streets blazed out in a burst of gas lamps, much to the astonishment and admiration of the citizens. After such a demonstration the promoters were no longer considered idiots It is calculated that $100,000,000 are now invested in gas manufactures in Great Britain.

New Method of Making Hydrogen Gas.—We have to report the invention of making hydrogen, invented by Giffard of Paris, and claimed to be so cheap as to cost only 10 to 30 cts. per thousand cubic feet, therefore less than one tenth of our common coal gas. The *modus operandi* is not given, and therefore it is impossible to verify the statement in regard to the expense. But if it is true, it will no doubt create a revolution not only in gas matters, but in the cooking of food, in metallurgy, in the working of metals, and especially those of a refractory kind, as platinum and others. In the method now referred to, the gas is said to be produced by a very rapid decomposition of water, and we are anxiously awaiting the details.

Amount of Water in the Atmosphere.—Did you ever think how much water is in the air, floating unseen? It generally amounts to nearly three gallons above each foot of the earth's surface, and often much more. As new vapor is always rising, the amount of rain that falls during a year is very large. At one place in the Himalaya mountains as many as three hundred inches deep falls in twelve months, or enough if it all fell at once to cover the land with water twenty-five feet deep. In San Francisco thirty-five to forty-three inches fall annually. In the Sierra Nevada the annual fall is from five to six feet.

To Detect Adulteration In India-Rubber.—One criterion for good rubber has been that it would float on water, its specific gravity being 0.985. The addition of any mineral adulteration, of course, renders it heavier than water, and it sinks; but, recently, cork has been introduced as an adulteration, and, as it injures quality, without increasing its weight, specific gravity becomes an insufficient test of quality. In some specimens examined at a chemical works in Stolberg, forty to fifty per cent. of mineral constituents were found, and to these were attributed the fact that india-rubber finds less use in the arts than might be expected.

East Indian Method of Cleaning Silver.

The Boston *Journal of Chemistry*, gives the following interesting account of the way in which the natives of East India clean silver articles.

The East Indian jewelers never touch silverware with any abrasive substance. For all articles of the kind, even the most delicate, the method of cleaning they adopt is as follows: Cut some juicy lemons in slices; with these rub any large silver or plated article briskly, and leave it hidden by the slices in a pan for a few hours. For delicate jewelry, the Indians cut a large lime nearly in half, and insert the ornament; they then close up the halves tightly, and put it away for a few hours. The articles are then to be removed, rinsed in two or three waters, and consigned to a saucepan of nearly boiling soapsuds, well stirred about, taken out, again brushed, rinsed, and finally dried on a metal plate over hot water, finishing the process by a little rub of wash-leather (if smooth work). For very old, neglected, or corroded silver, dip the article, with a slow stirring motion, in a rather weak solution of cyanide potass.; but this process requires care and practice as it is by dissolving off the dirty silver you obtain the effect. Green tamarind pods (oxalate of potash) are greater detergents of gold and silver articles than lemons, and are much more employed by the artisan for removal of oxides and firemarks.

A Perfect Waterproof.

A writer in an English paper says: By the way, speaking of waterproofs, I think I can give travelers a valuable hint or two. For many years I have worn india-rubber waterproofs, but will buy no more, for I have learned that good Scottish tweed can be made entirely impervious to rain, and, moreover, I have learned how to make it so; and, for the benefit of your readers, I will give the recipe:

In a bucket of soft water, put half a pound of sugar of lead, and half a pound of powdered alum; stir this at intervals, until it becomes clear, then pour it off into another bucket, and put the garment therein, and let it be in for twenty-four hours, and then hang it up to dry without ringing it. Two of my party—a lady and gentleman—have worn garments thus treated in the wildest storms of wind and rain, without getting wet. The rain hangs upon the cloth in globules. In short, they were really waterproof. The gentleman, a fortnight ago, walked nine miles in a storm of rain and wind, such as you rarely see in the South; and, when he slipped off his overcoat, his underware was as dry as when he put them on. This is, I think, a secret worth knowing; for cloth, if it can be made to keep out wet, is, in every way, better than what we know as most waterproofs.

Killing Animals with Chloroform.—Many persons would be glad to know how to kill an animal without suffering, and we venture to give the benefit of our experience. We are constantly called upon to destroy horses, dogs and cats, and have little difficulty in doing it. For horses we use a large sponge, say six inches in diameter, thoroughly saturated with chloroform, which is dropped into a bag, large enough to be drawn over the horse's nose. It is not desirable to have the bag "air-tight;" for, if so, suffocation is likely to ensue. In two or three minutes the horse is unconscious, and in eight or ten minutes dead, without suffering.

For dogs and cats, a similar process, using a small sponge and bag; or these animals, with the saturated sponge, may be put in a box admitting some air, when they soon "go to sleep." Seventy-five cents worth of chloroform will kill a horse, and twenty-five cents a dog or cat. If one saturation of the sponge does not complete the work, repeat it.—*Our Dumb Animals.*

Artificial Organisms.—The researches and experiments into the artificial formation of organic substances are being pursued by many original experimenters, with most encouraging success, and bid fair at an early day to reach a much greater practical value than has yet been realized. Although the methods adopted by the chemist in their artificial compounds are different from those which Nature employs; there can be but little doubt that the *forces* brought into requisition in both cases are identical. The conditions, however, under which the two operators work, are widely different. There is evidently a wide field for important research in this direction.

Flies have immovable eyes. They stand out from the head like half an apple, exceedingly prominent. Instead of being smooth hemispheres, they have an immense number of facets, resembling old-fashioned glass watch seals, each one directing the light directly to the optic retina. That explains why they cannot be approached in any direction without seeing what is coming.

A Cheap and Harmless Hair Dye may be made of the extract from the green epicarpium of walnuts. The effect of the juice of this substance in blackening the skin is well known, It is perfectly harmless in its effect on the skin or scalp.

Good Health.

Health of Women.

Farmers' wives are not as healthy and red-cheeked as city people suppose them to be. In a journey of a hundred miles, we may see a few rosy, bright-eyed, happy women; but, as a rule from Maine to California, care-worn faces, sunken eyes and compressed lips, tell pitiful tales of disturbed rest, of weariness and suffering. We do not attribute this to the tyranny of husbands. We have yet to see the man who does not pity his sick wife.

It cannot always be attributed to the tyranny of fashion, thousands of those suffering women do not read fashion-books. We do not propose to point out all the causes that operate so destructively, but will ask attention to a few not generally attended to by patients and physicians.

We speak of women who at marriage gave promise of a vigorous, healthy life, but as the years passed, their hopes faded like the baseless fabric of dreams.

Asking questions, and closely observing their habits, we learn that very soon after marriage the regular bath was omitted. "I knew it would refresh me, but it was not convenient. I had company, or was tired; and put it off from time to time, until the bath ceased to be a regular habit, and is now only the occasional luxury." The result was, the waste matter, that should have been passed off by the skin, had to be carried along, to be cast out by the kidneys and bowels; or was retained in the blood, loading the breath with impurities and finally clogging the liver.

Here, we have, through neglect of the bath, overworked kidneys, constipated bowels, and a torpid or tired liver. The vital forces ever working to preserve life, and the machinery of life, tossed out flags of distress. Yellow flags, over tongue, skin and eyes; and finally took away relish for food. The wise woman would have "abstained from food" and exhausted labor, and would have taken a thorough rubbing, scrubbing, sweating bath, to open the pores. Before going in and while in, and after coming out of the bath, copious drinking of water to wash the blood would have assisted the vital forces to go on with the cleansing processes.

"How?"

In this way: Water is very rapidly absorbed, or taken into the circulation. Then, to speak very plainly, it dissolves dirt; and through the skin, kidneys or bowels floats it out of the body.

Every particle of worn-out matter, salts, or medicines, dissolved and carried through the natural channels, by so much relieve the tired liver; when rested it will resume work without spurs or whips of any kind

Sick women have not thus reasoned; have not thus been obedient to the Divinely appointed law of cleanliness.—*Science of Health.*

Curing Without Medicine.

What is disease, let us ask again, that it should or should not be cured? This solution of the question underlies all argument, all theory, and all practice. It involves the truth or falsity of every medical system. Those of our readers who patiently and carefully follow the series of articles appearing monthly in our columns to its conclusion, will have all the data before them by which to settle this vitally-important question, which have accrued from two thousand years of assiduous study and experimentation. We hope and trust that the testimony will be conclusive in establishing the right system, whatever that may be.

Meanwhile, as an aid to the study of this problem, as well as a key to its solution, let us take the simplest illustration possible. Give a well person an "operative dose" of medicine, no matter what. It may be a compound of Bergh's and Bonner's remedies for "hipporhinorrhea"—tincture of iron, Jamaica rum tartar emetic and nitre. In an hour or two the person will be sick. He will experience nausea of the stomach, griping of the bowels, dizziness, headache, debility, and perhaps vomiting and purging. The disease is the effect of the medicine. It is the effort of the system to expel the medicine. Is this effort to be cured, or is the patient to be cured? Clearly the effort, the disease should rather be promoted than suppressed, that the drugs may be removed from the organic domain. The true medicine is to regulate the effort so that it will be successful in its work of purification. To cure it with more drugs is simply warring on vitality adding insult to injury.—*Science of Health.*

Milk as a Medicine.—An interesting article recently appeared in the London *Milk Journal*, concerning the value of milk as a remedial agent in certain diseases. Several physicians of high standing regard it as a specific for diarrhœa, dysentery, and incipient cholera. The milk should not be boiled, but heated sufficiently to be agreeably warm. It is also recommended as of great value in typhoid fevers—as cooling and nourishing, and as promoting sleep.

Avoid Fermented Food.—Fermentation of food should always be guarded against as the warm weather approaches. Cooked vegetables, fruits, beans, etc., when set away are very liable to ferment. Instead of warming up cold messes, thoroughly scald them. Much sickness is caused by eating stale food.

Domestic Economy.

Cleaning Feathers.

How shall we renovate old feathers, and also clean old ticks? This inquiry I have seen in the papers. My way is this: When the weather portends a heavy shower of rain, I lay the feather tick on clean grass, or in some other suitable position, and smooth it over evenly. One-half hour's heavy rain will clean one side of a badly soiled tick, unless there be greasy spots. In this case I take a pail of hot suds, pour it on the spots, brush them, and let the rain rinse it out. I then turn it over and serve the other side the same. If the shower should be of short duration, I put the bed out in the next rain.

To dry the bed, lay up the tick on slat work, clean rails, or something of the kind. If the feathers are much wet, so much the better. When drying, shake up, beat with light rods, pick up lumps if there be any. When the bed is dry, the tick will be clean, and the feathers almost as good a new. Some of our beds have been used thirty years. I have lain them in the rain every summer; they are now clean and good. It takes but a short time to dry the bed, but when it is dry to appearance, it is not at all fit to sleep on, but should be laid on an empty bedstead, a month or more, with the windows up. This caution may be unnecessary, as no wise head sleeps on feathers in the summer.

As for the labor, I had rather clean five beds in the rain than one in the way generally recommended—that is by pouring the feathers from the tick on a sheet in an empty room (when there is no empty room in the house), washing the tick, stirring up the feathers thoroughly, returning to the tick, and laying in the sun for several days, turning and beating up often.—*M. D. E., in Western Rural.*

Cooking Vegetables.—Why should vegetables be washed in warm water first, then cold, to clean them from the sand and insects? The hot water, which must be hotter than tepid, causes the insects and sand to fall out at once.

Insects do not always dislike cold water and salt, but hot water kills them.

It must be understood that only a small handful of greens or one head or cabbage at a time must be washed, and then instantly thrown into cold water, which crisps and thoroughly cleans them. Spinach, leeks, celery and sea-kale, are thus rendered very clean, and, moreover, are very rapidly cleansed.

It is worse than useless to attempt to cleanse vegetables in salt and water. The hardness which salt creates in the water prevents all cleansing properties. The salt may kill the insects (it does not always do this), but they stick on hard and fast; the hot water makes them fall out at once, and the cold water crisps and also bleaches the vegetables.—*Mrs. Warren.*

Cooking Peas.—No vegetable depends more for its excellence upon good cooking than peas. Have them freshly gathered and shelled. But never wash them. If they are not perfectly clean, roll them in a dry cloth; but this is seldom required, and then only through carelessness. Pour them into the dry cooking dish, and put as much salt over them as is required; then pour on boiling water enough to cover them; boil them fifteen minutes if they are young; no pea is fit to cook which requires more than half an hour's boiling. When done, put to a quart of peas three tablespoonfuls of butter, and pepper to your taste. Put all the water to them in which they were boiled. The great mistakes in cooking peas are in cooking too long, and in deluging them with water.

Rank Flavor in Mutton.—A correspondent of the *Rural New Yorker*, writing from New Mexico, suggests that the rank flavor in mutton may not be due either to the wool or the entrails; but possibly to the breed, management, and more particularly to the feed of the sheep. Mutton, particularly in the summer months, is used extensively in New Mexico as an article of food, and is free from rank flavor, though butchered in the usual way; and it tastes no more like that of the East, than Buffalo does like short horn beef.

We may say the same of California raised mutton.

Lemon Cheese Cake.—A quarter of a pound of butter, a quarter of a pound of sugar, a wine glass of milk or cream, two ounces of sponge cake, three eggs, the grated rind of one and juice of half a lemon; slice the cake and pour over it the milk or cream; heat the butter and sugar together, and stir into it; mash the sponge cake very fine, and add to the above; grate the yellow rind, and squeeze the juice of half a lemon and stir in. Cover the pie plates with paste, fill with the mixture, and bake in a moderately hot oven.

An Artificial Oyster.—Where will the genius of the American inventor end? A down east journal informs us that a Maine man is about to apply for a patent for an artificial oyster made out of flour paste, tapioca, salt and water. The inventor places these in second hand oyster shells which are carefully glued around the edges; and when a half intoxicated customer calls for a dozen raw on the half shell, he gets them fresh from the shop.

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SAN FRANCISCO:

Saturday, April 19, 1873.

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MEETING OF THE EXECUTIVE COMMITTEE.—This Committee of the California Farmers' Union met on Saturday last, in consultation. A decided feeling was manifested to go ahead and accomplish the work set before them. A session was called for the 7th of May to carefully canvass and, consider various resolutions and documents referred to them. It was also resolved that 1,000 copies of the proceedings of the late meeting of the Union, as reported by the Secretary, be republished from the PACIFIC RURAL PRESS in pamphlet form, and presented to the Farmers' Clubs and other associations. Parties wishing copies can secure them in a short time by addressing the Secretary or calling at this office.

THE EPIZOOTY.—This disease in a mild form has become quite general throughout the State. We hear of few if any serious cases and no deaths from the disease. As yet it can hardly be said to have appeared in San Francisco or if it has, is of so mild a type as to cause little or no inconvenience. At any moment, however, it may show itself more marked in its effects, and perhaps cause a suspension of the running of our street cars and the larger part of our livery stock. But we do not apprehend any very serious disarrangement of business. The disease seems to have become very much modified in intensity in its progress westward from the Atlantic States.

THE recent frost has done no damage in Oak Dale district, Solano County; our prospect for fruit and vegetables is very flattering.

ON FILE.—Practical Poultry Growing; Corn and Pea Planter; Studebaker Wagon Company; from Paradise Valley; from Pomo, Potter Valley; Size of Evergreen trees; Wayside Chat.

EXTRA COPIES of this paper containing report of the Farmers' Union meeting, can be had at 10 cents per copy, post-paid.

Large and Small Farmers.

It seems to be generally admitted that it will be of great advantage to the small producers of grain and other agricultural and horticultural articles to organize themselves into co-operative business associations for the purpose of assisting each other in the purchase of sacks, agricultural implements and other supplies; moving, storing or marketing their grain, etc., etc The advantages of this class are so apparent that every one who can see at all can see them at a glance. But at first thought it does not appear quite so apparent that the large producers will be benefitted to so great an extent if at all. The large farmer reasons like this: My crop is of sufficient importance to make dealers seek it. A very small commission or profit per cental made by them on the amount of grain I raise yearly will give the buyer of it so large a net profit that he will give me the highest market price and will in order to secure my trade and influence otherwise, favor me, in the purchase of sacks, storage of grain, etc. Why then should I join these co-operative associations? I am a co-operative organization within myself. The dealers understanding the situation, throw their influence against organization by the farmers by feeding and encouraging this sort of reason; and so the majority of the largest farmers of the State are holding back and this move of the farmers is deprived of their influence and assistance. It is for the eye of this class that we now write, and we say to them let us

Reason Together.

The history of the grain trade in this State shows that under the past management about one-fourth to one-third of all the grain produced in any one year is sold in the months of August, September and October. This amount covers about all the grain produced by the small farmers who from their necessities are pushed, and harrassed many times by country store-keepers, who are agents for large grain dealers, and compelled to put their crops upon the market as soon as harvested at any price to meet the expense of harvesting, threshing and sacking and to meet these pushed demands for provisions furnished them on credit of their crops.

Large Margin.

The history of the same grain trade shows that during these same months the margin between the price paid for grain in San Francisco and the quotations in Liverpool and other grain markets is much greater than during the balance of the year. This margin represents illegitimate and extortionate profits wrung from the small producers by the dealers, freighters and bag manufacturers, and the very necessities of these producers reproduces the differences from year to year and without organization, will do so indefinitely.

Now the Question Is,

Will it be a benefit to the large producers to check this extortion and reduce this margin between the home and foreign markets. A proper and legitimate figure at the beginning of the grain selling season, or in August, or in the middle of it, as in November, there, being no commercial measure for the present state of affairs, the power to apply the remedy lies in the hands of the farmers themselves, and principally in the large producers. These producers might not obtain any larger price for their grain than now, but they would by helping the small producers to hold on to their grain, force up the price to its proper figure in August instead of December, and thus hasten or bring forward the time of sale of their crops three months. In other words they would turn their crop into money, three months earlier each year. If that crop is of the value of $10,000 or $50,000, the interest on $10,000 or $50,000 for three months would represent the advantage thus to accrue to its owner yearly as a direct benefit.

Another direct benefit thus gained is that he saves the labor and expense of handling, storehousing or covering, the loss by waste, by shrinkage, etc.

Now for the

Indirect Benefit.

Having his money in his possession, he looks about him and makes his plans for the next year, makes improvements, and enters into interprises which he cannot while waiting for sales. All this work of getting the crop to market is done, too, before he wants to put his men and teams at their fall work. Another indirect advantage, by helping his small neighbor, he assists forward general improvement, and thus enhances the value of land in his neighborhood, and so indirectly enhances the value of his own. We might point out many other advantages, but will defer till another time, when we will renew the subject.

Rhubarb Wine.

One of our subscribers having raised a larger quantity of rhubarb than he can dispose of at remunerative prices for pie making and who has heard that good wine can be made from the surplus, asks us if it can be done, and if it can, how it differs from wine made from the grape; and lastly whether we can furnish him with a recipe for making rhubarb wine.

Grapes differ materially in their constituents from most other fruits employed for making wine. The juice of the grape not only contains a larger proportion of sacharine matter than that of other fruits, and is consequently capable of producing a larger quantity of alcohol, making a stronger liquor; but it differs also in the nature of its acid, which is chiefly the tartaric, that being almost the only acidulous principle in it, particularly the mature grape, ripened in a dry and warm climate like California.

It is the abundance of this acid in the grape that causes its excellence as a material for wine. Other fruits employed for this purpose, as gooseberries, currants, elderberries, strawberries and cherries, contain chiefly the malic, citric and acetic acids, which are partly combined with potash, and partly in a free state; but these salts being soluble both in water and in alcohol, necessarily remain in the wine that has been prepared from the fruits named, nor can they be separated; hence all the wines made from fruits except the grape, contain a quantity generally considerable, of free acids, which is injurious to many constitutions; and as the acids are not generally palatable, they are usually concealed by the addition of large quantities of sugar.

The tartaric acid, on the contrary, does not exist in the grape in a free state; but is always combined with potash, constituting bitartrate of potash, and this is the substance known as tartar. All grapes are not however entirely without other acids besides tartaric, but they seldom contain them in any considerable quantity, and in case they do, they are less fit for the production of good wine.

Hence we insist that rhubarb is but an inferior product from which to manufacture wine, as it contains in large quantities the very acids not wanted in the production of good wine, and contains no sugar at all. However as we like to favor our correspondents with answers to their inquiries, we append the following recipe for making

Rhubarb Wine.

To every five pounds of rhubarb stalks, when sliced and bruised, put one gallon of cold spring water; let it stand three days, stirred two or three times every day; then press and strain it through a sieve, and to every gallon of liquor put three and one-half pounds of loaf sugar, stir it well, and when melted barrel it; when it has done working bung it up close, first suspending a muslin bag with isinglass from the bung into the barrel—say two ounces for fifteen gallons. In six months bottle it and wire them; let the bottles stand up for the first month, then lay four or five down lengthways for a week, and if none burst, all may be laid down. Should a large quantity be made it must remain longer in the cask.

Lombardy Poplar.

In answer to an inquiry, the Lombardy poplar should never be set on the side of the vegetable or fruit garden as a wind breaker nearer than 50 or 60 feet. It is a gross feeder and if the soil of the garden is manured as it should be, the roots of the poplar will be sure to find it out and appropriate it, if nearer than the distance named.

Let the trees be only 3 or 4 feet apart allow every limb to grow that will and when they have attained a hight of 12 or 15 feet cut off the tops, and annually thereafter for 2 or 3 years repeat the heading back. In answer to further inquiry, we remark, that we deem it too late to set the trees this year, either as cuttings or rooted trees. That though the snow has but just left Nevada, here, where you propose to obtain your trees, they are in full leaf. Wait till next fall.

CALIFORNIA BUTTER.—A car load of new California butter consigned to Doremus & Co., New York, arrived there in good order on April 7th, and was sold rapidly at 48 and 50 cents per pound. Another car load was expected the following day.

Goats and Guadalupe Island.

Among the agricultural notes for San Diego county in our April 5th number, we made mention of the enterprise already inaugurated, of devoting Guadalupe Island to the rearing of Angora goats, and upon a scale that has as yet no equal in this State or perhaps in the world. This island lying off the coast of Lower California, in latitude 29 north, gets but little rain during any part of the year.

We were at a loss to know how thousands upon thousands of goats were to obtain fresh water for drinking where there are no rains. On making inquiry of a gentleman who has been interested in the property of the islands, for sheep and goat breeding since its first occupation, we obtained the following facts. Upon the north end of the island there are perpendicular cliffs of rocks that rise into a mountain, thousands of feet high.

From this elevation there is a gradual but irregular slope to the south, covered with a dense growth of shrubbery and much fine timber. All of this higher and wooded portion is almost constantly enveloped in a dense cloud of fog, which imparts sufficient moisture, not only to sustain the rank vegetation, but to feed innumerable springs that flow from all the lower portions of the island.

But there is another source from which a supply of water is practicable, if needed. On a part of the island six hundred feet above the sea, is a volcanic crater that at all seasons of the year contains an abundant supply of pure, fresh water. It is fifty or sixty feet from the top of the crater to the surface of the water, and the sides are so steep that even a goat—that can go almost anywhere—finds his match here, for during the time of its occupation more than 500 goats which had made the descent to the water were unable to climb their way out, and perished within the crater.

Further in regard to the goat enterprize on this island, can be learned by referring to "Agricultural Notes" for San Diego County, in this number.

Ginger Culture.

A correspondent asks us if ginger can be successfully grown in California; and what the method of its propagation. There is no difficulty in growing it on any soft, moist, warm land.

It is generally cultivated by divisions of the green roots, which can be obtained of the Chinese merchants in this city. Divide the roots as you would dahlias and plant two and a half feet apart each way; keep the surface of the soil loose and free from weeds by repeated hoeing if necessary.

It is safe to assume that the roots are fully grown when the stalks begin to wither, they should then be taken up; except those intended for planting which can remain in the ground, where they would not be injured by frost.

Agricultural Department.

[A. F. H., IN CHRISTIAN WEEKLY.]

The wise men of the nation have been strangely thoughtless respecting the claims of agriculture. The few who laid it to heart could awaken no enthusiasm either among the legislators or their farming constituents. That for several years so grave and vital a concern should have received no other governmental consideration than was accorded to it in addition to his official duties, by the voluntary labors of a Commissioner of Patents, is a sufficient indication of the universal apathy.

A little more than thirty years ago this national benefactor, Hon. H. L. Ellsworth, succeeded in obtaining from Congress an appropriation of $1,000 for agricultural purposes. For the previous two or three years he had been distributing seeds and plants which were gratuitously sent to him, to farmers and others under the frank of friendly members of Congress. The franking privilege is therefore to be accredited with at least one advantage. During the nine years of his incumbency this true patriot accomplished much toward the development of the agricultural resources of the country. He made the best use of his means and was enthusiastically industrious, accepting the meagre appropriations when they came, and working patiently without them when they were withheld.

Happily his successor in the Patent Office prosecuted the same good work, and the cause flourished fitfully, though on the whole steadily taking root under other administrations, till in

May, 1862, the Department of Agriculture was formally organized.

The details of the growth of the Department and the work it has thus far done, are recorded in its yearly reports, and to those the interested reader can refer, while we shall endeavor to aronse the nninterested to an appreciation of what it now offers to do.

It is a distribnting reservoir of all knowledge and information valnable to the cultivattors of the soil. It is intended to have at least one intelligent correspondent in every county in the United States, throngh whom statistics of quality and quantitv of the crops and other facts are forwarded to Washington, to be thence distribnted over the country by means of the monthly and yearly reports. Specialists are also employed to prepare for these reports instructive articles on snitable topics.

Seeds of new varieties and superior quality, whether of foreign or native growth, are sent to appropriate parts of the country and through clubs and other media put into the hands of agriculturists for experiment. Snch as prove valuable not only benefit the neighborhood, but soon become scattered far and wide.

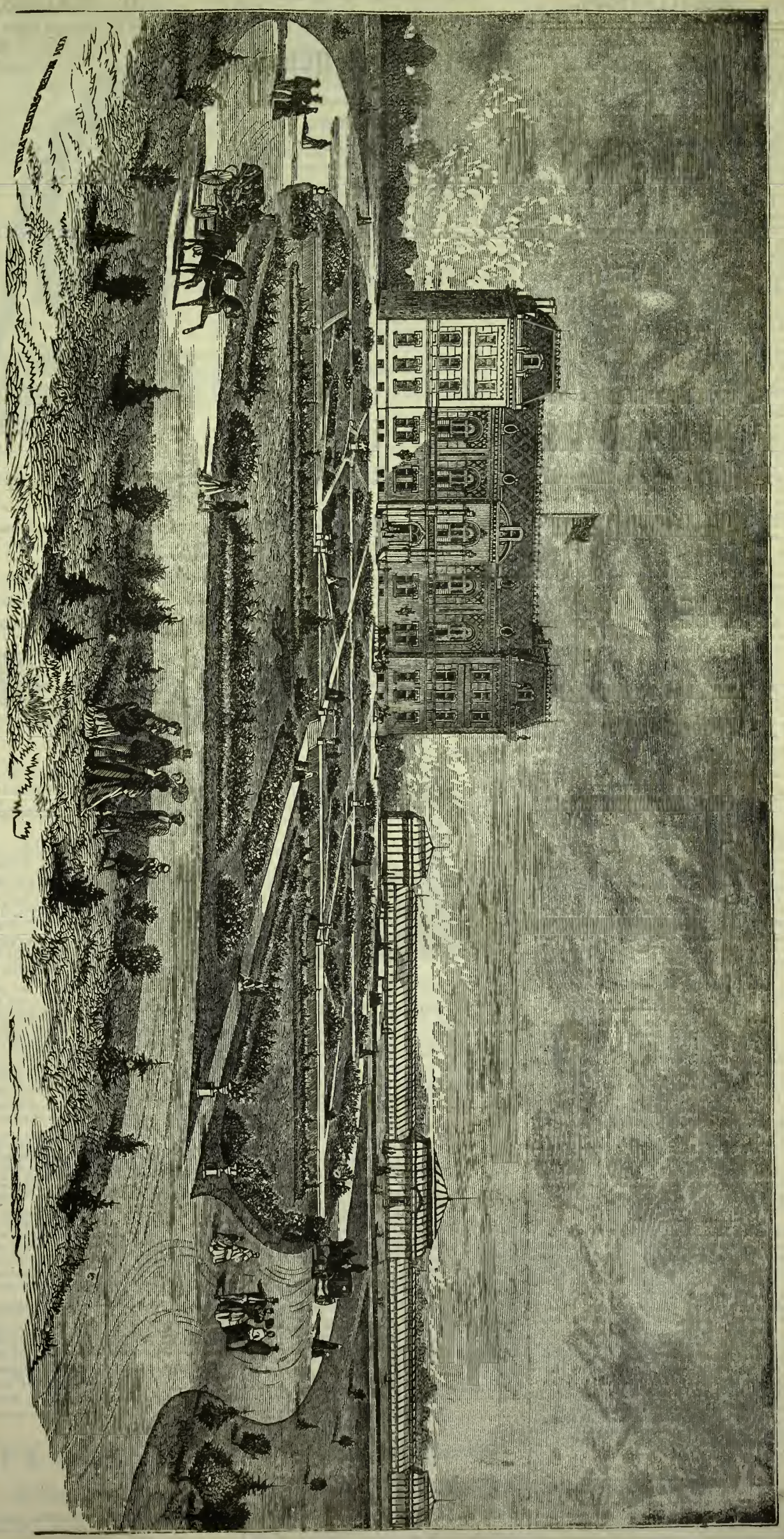
The horticultural and propagating division of the Department is of great value. Studies in ornamentation, in the best means of hybridizing, budding, pruning, and grafting, in treating diseases of plants and trees, can be better pursued in the public conservatories and experimental gardens than from any nnmber of books. Under the superintendence of courteous, intelligent men, the grounds and conservatories connected with the Department afford the visitor a great pleasnre, and if he be minded to learn, a very great benefit also. In an afternoon one may breathe the spiciness and marvel at the luxnriousness of tropical foliage, stndy the variety of that of the temperate zone and watch the gradual dwarfing which the northern cold produces. With the descriptive catalogne in your hand, you may ascertain the home and properties of each plant and tree, and the intelligent and gentlemanly superintendent will answer your questions and give you interesting items concerning them, with a readiness which shows how fully nature has taken him into her confidence.

Connected with the Department there is a chemist who will analyze your soil for you, tell you its abilities and its needs, inform you whether the fertilizers you are using are what they pretend to be, and are what you should get; a botanist who will study the nature and diseases of plants, will know in what families to seek needed products and what effect a change of soil and climate will have upon them, and an entomologist whose business it is to inform against the little foes that work mischief among the plants and trees, and to devise means for their extermination.

If you have fallen heir to, or become the purchaser of a farm in a region with which you are unacquainted, send to this beneficient department and it will tell you the crops likely to prove remnnerative in that locality, advise you concerning their cultivation, warn you of the obstacles to be expected, and suggest your best means of surmounting them.

In innumerable ways many of which will suggest themselves to the reader, can the energetic and conscientious farmer avail himself of the assistance which government is now prepared to offer him. No one can complain of extravigance in this case when he learns that the building in which all this work is done, where also are the museum and library, cost only $140,000, no more than many private houses cost. The conservatories cost $52,000 more. The library contains agricultural literature in several languages, and although not very large the collection is valuable. On the long tables lie books of rare pictures. One set especially attracted us. It was a present from Francis Joseph I., emperor of Austria, and is entitled "Nature Printing." It required the assurance of the librarian to persuade us that the exquisit ferns and leaves were not really pressed on the paper, so marvelously were they printed.

In the museum are to be seen the specimens of fibrous products, cereals from this and other countries, paper and sugar made from various materials, stuffed birds and fowls and *fac-simile* models of the fruits and vegetables grown in the United States. The curator of the museum is an enthusiast in his work and has the specimens arranged with great system. In the basement of the building, the first floor being used for various offices, the work of packing and shipping the seeds is carried on. Ladies using sewing machines, prepare the canvas-bags in which some of the seeds are placed, others fill the paper envelopes elsewhere prepared. The entire work is prosecuted economically and indicates that there are conscientious men even in official positions in Washington, who are not striving for personal honor or aggrandizement, but are truly laboring for the public good, that is for your good and mine.



THE AGRICULTURAL DEPARTMENT AT WASHINGTON, D. C.

Our Fruit Markets.—These present at the present time, in their fresh, uncanned condition, an abundance of apples, pears, cranberries, oranges, lemons, limes, bananas, pine-apples and cocoanuts. Among vegetables we notice new potatoes, turnips, beets, parsnips, salsify and green peas, and all at reasonably low prices.

Strawberries.—This delicious fruit is now so abundant that lovers of it can indulge to their fullest desire by paying from 15 to 20 cents a pound for it. Rhubarb or pie plant is accumulating in quantity entirely beyond the demand.

Miscellaneous.

The Polar Exploring Expedition.—It appears by all accounts from the extreme north, that the temperature of all seas which bathe the Arctic islands, eqnally with the temperature of the air, has been very mnch higher during the past snmmer than in former years, and this thermometric anomally has extendedto the Orkney Islands and Scotlaud.

These facts are highly suggestive of the ice-condilions in the circumpolar basin, wlth which the American, Austrian and other Arctic explorers were probably contending till the long winter of the high north set in, and would seem to fully explain the silence of all the explorers, which has continned nnbroken for an unnsnal length of time. Upon this snpposition that the ice-drifts were made unusually large by the great excess of heat, and drifted southward in July, leaving an open sea hehind them, Capt. Hall's, and the various other expeditions would doubtlesss have improved the opportunity to push boldly forward to the highest attainable latitude.

As all the outstanding exploring parties were furnished with boats suited to just snch a happy emergency, it is highly probably that one or more of them has progressed toward the Pole beyond the ntmost limit ever before reached.

The Preservation of Exposed Sheet-Iron. The direction of the government railroads of the Netherlands has pnblished the results of some experiments in regard to the preservation of sheet-iron nsed in railroad bridges. From 32 sheets half was cleaned by immersion for 24 hours in dilnte hydrochloric acid; they were then nentralized with milk of lime, washed with hot water, and while warm dried and rubbed with oil. The other half was only cleaned mechanically by scratching and brushing. Four of each kind were then equally painted with red lead, with two kinds of a red paint of oxide of iron, and with coal tar. The plates were then exposed to the wether, and examined after three years. The result was, 1. That the red lead had kept perfectly on both kinds of plates, so that it was impossible to say if the chemical cleaning was of any nse. 2. That one kind of iron oxide red paint gave better results on the chemically treated plate than on the other; in fact, a resnlt equal to that of the plate painted with red lead, while the other kind of iron oxtde red gave not very good resnlts on the plates, when only scratched and brushed. 3. That the coal-tar was considerably worse than the paint, and had even entirely disappeared from those iron sheets which had not been treated chemically, bnt only cleaned by brnshing.

Wood and Coal Ashes.—It appears to be a matter of no little surprise, with some, that while the ashes from most woods are highly charged with alkaline matters, no snch matter is found in the ashes of mineral coal; although we are taught that such coal is derived directly from woody snbstance. The reason of this is found in the fact that the change from wood to coal is made in the presence of water, by which all the alkaline matter is abstracted by solution; mineral ingredients—chiefly silica—being snbstituted in place of the akaline matter, thus addiug to the bulk of the ashes, but rendering them useless as a fertilizer, except for the mechanical action which they exert npon clay soils, rendering such soils more loose and friable.

A New Fuel.—A mann'actnring chemist, Mr. John Sellars, of Birkenhead, England, has invented a novel composition of matter for use in the place of coal, cannel, etc., in the manufacture of illuminating gas. The composition consists of a mixture of sea-weed, sea-grass, see-rack, or the like, with coal tar, pitch, bitumen, mineral oils, etc., either with or withont peat, charcoal, or other carbonaceons matter, which mixed matter is subjected to destructive distillation in retorts. The advantages claimed are more effective separation of the light hydrocarbons; second, increased yield of carburetted hydrogen, and the production of coke particularly valuable in the manufacture of metal-foundries' blacking.

American Machinery in Europe.—It is a pleasant and noteworthy fact, says the *Boston Commercial Bulletin*, that the demand for machinery of American make of all kinds is growing rapidly in favor in countries which have hitherto looked to England as the only proper source for such apptiances. At the present time we send locomotives to Russia and Austria, shoe and leather-working machinery to Switzerland and Mediterranean countries, pulp-reducing machinery to Spain and Portugal, and tailors' shears to England. Besides these there is an ever-increasing demand for agricultural machinery, in which our superiority is acknowledged, and our sowing machines are so far ahead of all others that those of foreign make are seldom or never thought of. Our weed-working machinery, too, is attracting the attention of the Old World, althongh they have less use for it than we.

Early Saws.—An English writer says that every one who knows anything about saws, their nse, and history, knows that the first saws of which we have any trace or record were thin-backed, so that the cutting edge should work freely; setting out the teeth is of more recent invention. The old saws preserved in the musenms show this construction.

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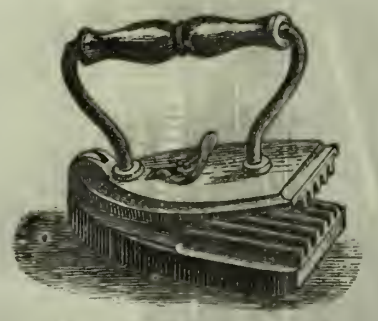
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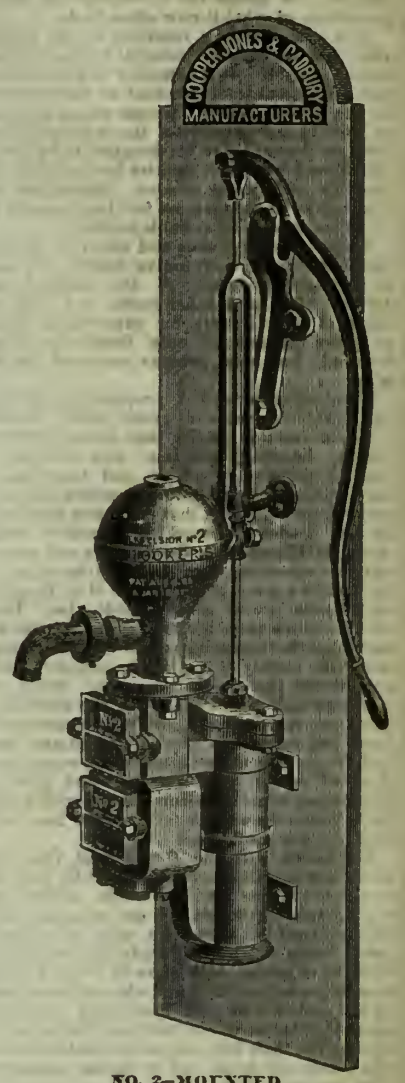
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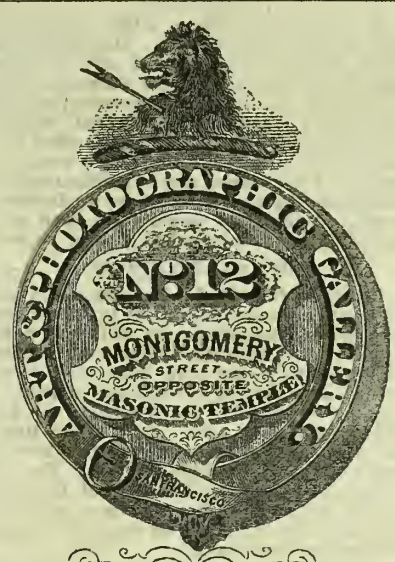
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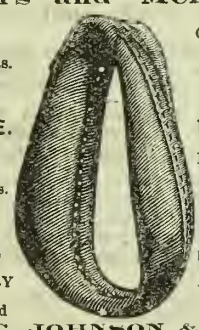
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[Continued from page 245.]

we were visited by the heaviest hail-storm that we have witnessed for many years. Friday and Saturday nights heavy frosts fell, and grave fears are entertained that the fruit crop is ruined. Early tomato plants are destroyed, and gardens generally are seriously damaged.

THE CROPS.—All the way from Vallejo to Dixon, on both sides of the railroad, are looking magnificently now, but it is the universal opinion, that without a good rain, the crops in this county will be short, but the prospect now, was never brighter. The heavy frosts of last week only injured vegetable gardens, corn, potatoes, etc.; the fruit crop is too far along to be injured to any extent; the grape vines were nipped pretty generally, but as there is very little market for grapes in this section, not much importance was placed on the fact; a number of farmers are removing the vines from their land.

SAN DIEGO.

Union, April 3: FRUIT TREES AT GUAJOME.—The fruit trees in the orchard of Col. Cave Conts at Guajome, in the San Luis Rey Valley, are in full bloom. There is an orange tree in the orchard which gives extraordinary evidences of precocity. It is laden with ripe fruit, and yet its branches are covered with full-blown blossoms and young fruit.

GRASS BETWEEN HERE AND LOS ANGELES.—The grass between San Juan Capistrano and Los Angeles, Mr. Thos. Gates informs us, is very abundant. From San Juan to within about twenty-five miles of this city it is exceedingly short. From twenty-five miles ont feed is good.

FROM GUADALUPE ISLAND. — Yesterday the schooner *Louisa Harker*, Captain Smith, returned from Guadalupe Island, where she has been with a consignment of fifty Angora goats. Captain John G. Clancey has returned with the vessel. He reports that an abundance of rain has fallen on the island, and the grass there is now two feet high.

The two herders on the island are in the enjoyment of good health, and are in excellent spirits. An immense amount of fencing has been done by them during the winter. Capt. Clancey goes north on the next steamer to bring down another herd of Angoras.

GRAIN CROPS NEAR THE PIMA VILLAGES.—Mr. Isaac Williams, of Pima Villages, who arrived in this city by the last stage from Yuma city, says that there is this year much more grain in the valley of the Gila river in the vicinity of the Pima Villages, than has ever before been planted. The rains have been abundant, and the crops will be unusually large. It will be a rich harvest for the farmers this year if they can only get ready sale for the crop.

TEHAMA.

Independent, April 12: THE weather for the past week has been unusually pleasant. Almost too much so for the good of growing crops. The crops in this county are not absolutely in need of rain, but a little would improve and help out late sown grain.

TWIN CALVES.—A few days over thirteen months ago a cow belonging to Geo. Worthington, of this town, gave birth to twin calves, and on Sunday last the same cow gave birth to twins again, making four calves inside of fourteen months. The cow is also a twin, the mother of which is owned by S. A. Gyle & Co. This is the first case which has come to our knowledge where a cow has given birth to twin calves two years in succession. There are probably others, but we do not believe that there is a case on record where the births have taken place in so short a space of time.

TULARE.

Delta, April 10: GREAT damage to fruits and vegetables must certainly result from the severe blow and frost of last week. Had it happened as late as last year it would have proved equally destructive. The frosts of April 16th, 1872, and April 4th, and 5th, 1873, will probably be long referred to as among the most severe on record.

COOL WEATHER.—On Thursday and Friday nights of last week we experienced unusually cold weather for Visalia. On Friday morning there was quite a heavy frost. Mr. Whittaker of Stocke's Valley, informs us that on Friday night last, ice to the thickness of a quarter of an inch formed at that place, although the fruit was not injured thereby.

Times, April 12: GRASSHOPPERS.—Grasshoppers in innumerable quantities have appeared on Lower Tule river and are gobbling up the grass and vegetation at a savage and rapid rate. An old resident informs us that he never saw so many so early before. Where do they come from? They are an aggravating pest.

THE WEATHER.—The weather is still dry and windy and rain is very badly needed. Grass is drying up and unless rain soon falls crops will be very light in many localities in this region.

YOLO.

Mail, April 10: CROP NOTES.—We have had occasion to inquire of many of our farmers with regard to the crops, and find diversified opinions. S. Chandler, who has a ranch about four miles from Woodland containing two quarter sections, and who we believe has most of it sown in grain, assures us that without another drop of rain he will realize thirty to thirty-five bushels per acre, if the north wind does not thresh it out before it is cut. This wheat was all sown before the last of February. L. L. Burr of West Grafton tells us that much of the late-sown grain in that section, has not yet had any rain, and unless it comes very soon such wheat will be a total failure. There are many of our farmers who did not get all their grain sown until the rains were over, and of course, without rain it will not amount to much. The same may be said of the county as a whole. It is unfortunate that while a part of the grain requires considerable rain to produce a good yield, that it would utterly ruin that which is so far forward. One large farmer expressed to us the opinion that a heavy rain now would prove disastrous to most of the crops, as it would make it full, and the rank growth and heavy blades would prevent it from again rising.

The frosts have produced their effects on our fruits and vines. But little fruit will be gathered in this valley the coming season, and the grape yield will be light. We have had reports from some of our large grape-growers, and they say that the tender shoots were nearly all killed. The weather now looks settled, and really favors the growing crops in the absence of north winds.

OREGON.

Sentinel, April 5: MIXED.—The weather has been rather mixed of late. During the last week we have been favored with all sorts. Rain, wind, hail, snow have alternately been the order of the day, with fragments of sunshine sandwiched between. It is feared that the cold weather may have a disastrous effect upon the peach blooms, which the warm weather of two weeks ago hurried into bursting so rapidly. Otherwise, the late storm will be productive of great good, though it would have been more acceptable to the miners had it come sooner.

WASHINGTON.

Union, March 29: IN BLOSSOM.—Just now the peach trees are beginning to bloom, and from present indications we will have a fine peach crop. Thus far frost has done no harm, and unless we should have frost soon, we will have an abundant crop of all kinds of fruit.

RAIN.—Within the last few days we have had a good deal of rain. Most of the time it has been warm, growing showers, but there has been some wind and chilly weather. The rain was greatly needed and has been of incalculable benefit to the valley, as there was great need of moisture in many of the fields of grain that had just been sown.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 15th, 1873.

FOR WEEK ENDING APRIL 1st, 1873.*

MACHINE FOR INSERTING SCREW-PEGS IN BOOTS AND SHOES.—Andrea Cavalli, assignor one-half interest to Victor Noly, S. F., Cal.

PROCESS OF SEPARATING GOLD AND SILVER FROM BASE METALS.—Erick Lundqnist, Grass Valley, Cal.

TRACK CLEANER FOR HARVESTERS.—Orrin Du Bois, San José, Cal.

PRESSER BLOCK FOR PANTS.—Lewis Cohen and John C. Waller, S. F., Cal.

PROCESS FOR REMOVING PAPER FROM WALLS.—Catherine F. Ware, S. F., Cal.

MAGAZINE GUN.—Alfred Swingle and Frank A. Huntington, S. F., Cal.

CHIMNEY.—Jeremiah Browell, S. F., Cal.

CHANNELING AND EDGING TOOL.—Louis Banr, S. F., Cal.

FRUIT KNIFE.—George W. Stevens, S. F., Cal.

TRAY FOR DRYING FRUIT.—George W. Stevens, S. F., Cal.

DIAMOND POINTED DRILL FOR DENTAL USE.—James P. Gillespie, S. F., Cal.

METALLIC CASES FOR TURBINE WHEELS.—Abraham Myers, Salem, Oregon.

TRADE MARK.

MEDICINE.—D. D. Tomilson, San José, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

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ALTOGETHER THE BEST.—It is curious, but true, that J. A. SHABER, 707 Market street, near Third, should sell Furniture and Bedding cheaper than any other dealer in this city. Try him and you will be convinced. 3v5-3m

Buyers' Directory.

Under this head will be found the names and address of some of our most enterprising and reliable business men.

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T. R. Church, 223 Montgomery Street, (Rnss House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

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A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Charles Brown, Dealer in Ranges, Stoves, Tinware, Kitchen utensils, Woodenware, etc. Plumbing and Water Piping. Attention paid to connecting Hot and Cold water to Stoves, Ranges, etc. 734 Market st., S. F.

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A. Galli & Co., General Commission Merchants and dealers in Country Produce, Vegetables and Fruit, 509 Sansome St., San Francisco. Special attention paid to Shipping Orders. P. O. Box 1082

Fred. C. Warner & Co., General Commission Merchants, No. 21 Metropolitan Market, San Francisco. Hams, Bacon, Butter, Eggs, Cheese, etc., sold on Commission.

A. Lusk & Co., Wholesale Commission Dealers in California and Oregon Fruits, Oranges, Lemons, and all kinds of Canned and Dried Fruits, etc. Pacific Fruit Market, Clay st., below Montgomery, S. F.

Saul & Co., 579 Market Street, San Francisco. Manufacturers of Carriages, Wagons and Stage Work, of the most improved and practical styles.

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Wheat Market Quotations Compared.

1873.	S. F.	Liverpool.		Diff. Bet.	
	SHIPPING.	TELEGRAPH REPORTS*	MAIL REPORTS†	Mail & Tel.	S. F. & Tel.
FEB. 1	1 92½	2 98@3 01	.....	.....	.....
" 3	1 92½	2 98@3 01	.....	.....	.....
" 4	1 92½	2 98@3 01	3 03@3 28	11	1.07
" 5	1 92½	2 98@2 99	.....	.....	.....
" 6	1 91¼	2 98@2 99	.....	.....	.....
" 7	1 91¼	2 98@2 99	2 99@3 20	12	1.06¼
" 8	1 91¼	2 98@2 99	.....	.....	.....
" 10	1 91¼	2 98@2 99	.....	.....	.....
" 11	1 91¼	2 92@2 97	3 04@3 29	22	1.03¼
" 12	1 87½	2 96@2 99	.....	.....	.....
" 13	1 86¼	2 96@2 99	.....	.....	.....
" 14	1 89½	2 93@2 95	3 05@3 31	24½	1.06½
" 15	1 86¼	2 93@2 95	.....	.....	.....
" 17	1 87½	2 93@2 95	.....	.....	.....
" 18	1 87½	2 93@2 95	3 01@3 26	19½	1.06½
" 19	1 87½	2 93@2 95	.....	.....	.....
" 20	1 88	2 93@2 97	.....	.....	.....
" 21	1 83¾	2 89@- -	2 98@3 24	22½	1.15
" 22	1 83¾	2 89@2 91	.....	.....	1.06½
" 24	1 82½	2 89@2 91	.....	.....	1.07½
" 25	1 82½	2 85@2 87	2 89@3 13	15	1.03½
" 26	1 82½	2 85@2 87	.....	.....	1.03½
" 27	1 75	2 83@2 85	.....	.....	1.09
" 28	1 75	2 81@2 87	.....	.....	1.09
MAR. 1	1 75	2 81@2 87	.....	.....	1.09
" 3	1 75	2 81@2 87	.....	.....	1.09
" 4	1 75	2 81@2 87	2 88@3 13	6	1.09
" 5	1 75	2 82@2 89	2 77@3 03	17	1.10½
" 6	1 75	2 84@2 90	.....	.....	1.12
" 7	1 75	2 85@2 91	.....	.....	1.13
" 8	1 80	2 85@2 91	2 99@3 05	4	1.08
" 10	1 80	2 85@2 91	.....	.....	1.08
" 11	1 80	2 85@2 91	2 93@3 05	11	1.08
" 12	1 80	2 85@2 91	.....	.....	1.08
" 13	1 80	2 85@2 91	.....	.....	1.08
" 14	1 80	2 89@2 91	2 89@3 01	5	1.10
" 15	1 80	2 89@2 91	.....	.....	1.10
" 17	1 80	2 81@2 87	.....	.....	1.04
" 18	1 80	2 81@2 87	.....	.....	1.04
" 19	1 80	2 81@2 87	.....	.....	1.04
" 20	1 80	2 79@2 83	.....	.....	1.01
" 21	1 80	2 79@2 83	.....	.....	1.01
" 22	1 80	2 79@2 83	.....	.....	1.01
" 24	1 80	2 79@2 83	.....	.....	1.01
" 25	1 80	2 79@2 83	.....	.....	1.01
" 26	1 80	2 79@2 83	.....	.....	1.01
" 27	1 80	2 79@2 83	.....	.....	1.01
" 28	1 80	2 79@2 83	.....	.....	1.01
" 29	1 80	2 77@2 81	.....	.....	99
" 31	1 80	2 75@2 79	.....	.....	97
APR. 1	1 80	2 73@2 79	.....	.....	96
" 2	1 80	- -@- -	.....	.....	96
" 3	1 82½	2 71@2 81	.....	.....	93½
" 4	1 82½	2 71@2 81	.....	.....	91½
" 5	1 82½	2 71@2 81	.....	.....	93½
" 7	1 82½	2 71@2 81	.....	.....	93½
" 8	1 82½	2 76@2 82	.....	.....	96½
" 9	1 82½	2 76@2 82	.....	.....	96½
" 10	1 80	2 76@2 82	.....	.....	99
" 11	1 80	2 76@2 82	.....	.....	99
" 12	1 80	2 76@2 82	.....	.....	99
" 14	1 80	2 76@2 82	.....	.....	99
" 15	1 80	2 76@2 82	.....	.....	99
" 16	1 80	2 76@2 82	.....	.....	99

*—Tha quotations given by telegreph to the Associated Press are mainly those of what are called by the egent of the Associated Press Average California Wheet. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between tha mean prica of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lana Express" shows higher prices than the telegreph.

S. F. Market Report.

At wholesale when not otherwise indcated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, April 16th, 1873.

If anything the market has since our lest been weaker, Wheat having receded a little, on account of the small *present* demand for export. Knowing that they have only a smell stock to draw from in any event, and that good prices will be demanded for it, as also feeling uncertain of the tone of the Liverpool market, buyers have held back a little. But Wheat is not the only article of Domestic Produce which has evinced a weakening tendency for Butter has receded to 25 and 27 cents per pound, great quantities continuing to arrive.

Serious fears are entertained by many of our prominent agriculturists that in consequence of increased prodnction of Wheat in Southern Rusaia and throughout Europe generally, that we shall be forced out of the English market, and rendered unable to sell our Wheat there. Tha reasons advanced are certainly very forcible and must dispose all thinking men engaged in the Wheat business to serious consideration of how best to avert such a catastrophe, for catastrophe it would be. If our Wheat could be handled and sent to England more cheaply, there need be no fear of this. It is therefore o the reduction of sea freights and railroad charges that our attention should be turned. The former will best be done, by having ships built on the Pacific Coast, owned either by our farmers, or those having a common interest with them—the latter will be aettled by means anggeatad by the many and powerful organizations now being formed throughout the United States for the purpose of obtaining favorable legislation in railroad matters. We must also seek to develope tha trade of Central America and Mexico, and to introduca our Whaat and Flour more to the notica of the middle classes of China and Japan, who would if once they had acquired a taate for it, consume annually far more than we conid ever hopa to produca.

Some fears are entertained that the dry weather mey seriously interfere with the wheat crop, and reduce the amonnt fifty per cent. We hope that this danger may be averted.

Receipts.

Receipts exhibit a marked improvement on the previous week, nearly everything being in excess. Receipts of Flour had iucreased one-third; those of Wheat a faw thousand centals; those of Barley nearly one-half, and thosa of Oats very much indeed. Receipts of Potatoes were nearly one-third in advance of those of the previons week; of Wine one-sixth; white of Wool, which is now beginning to come in, the receipts were donbled.

We summarize receipts of Bay Produce to date as, Fionr, 19,301 quarter sacks; Wheat, 109,173 centals; Barley, 15,153 do; Oats, 1,332 do; Beans, 85 do; Corn, 113 do; Flaxseed, 90 do; Mustard, 195 do; Potatoes, 2,443 do Wine, 22,430 gallons; Brandy, 640 do.

Receipts of Wheat at Oakland Wharf have been again small aggregating but 21,000 centals or 105 car-loads for the week.

Receipts of Domestic Produce from Coast ports exhibited an increase in the matters of Wool, Hides, Wheat, Peas and Potatoes, a failing off in other respects. We summarise receipts of Coast Produce to date as Wheat 2,820 centals, Barley 2,547 do, Oats 1,242 do, Corn 3,435, Rye 6 do, Beans 981 do, Peas 3,660 do, Potatoes 8,332 do, Mustard Seed 80 do, Hides 503, Wool 454 hales, 29 half bales, 203 quarter bsles and 3 sacks, Wine 2 half barrels and 10 pipes 10 puncheons of Brandy and 3 casks, 10 barrels, 1 half barrel and 8 cases of Liquors.

By the "Oriflamme," from Portland, we are in receipt of 430 boxes of Apples, 1,374 half and 1,316 quarter sacks of Flour, 1,946 centals of Oats, 2,898 do of Wheat, 218 do of Potatoes, 80 do of Onions and 223 Hides.

Barley.

There is no more demand for export just now, but the probability is that Australia will require a good deal of our Barley for the future. We note sales of 500 sacks of Coast Feed at $1.17½ to $1.50, 5,250 do at $1.20, 1,000 do Coast Prewing at $1.22½, 2,100 do at $1.25, 600 do Bay Brew at $1.35, 1,850 do at $1.37½ and 250 do of Chevalier at 30 days for $1.65.

Flour.

Flour remains the seme. Exports have been rather small last week, aggregating 1,302 barrels, 530 half sacks end 12,970 quarter sacks to Honolulu, Burrerd Inlet, China and Japan.

Hay.

Receipts have been tolerably liberal but of rather inferior quality. We note sales of a cargo of Wild Oat at $18 per ton, one of Wheat at $20 to $21 and one of mixed at $18.

Potatoes.

We received last week 10,755 centals, a very large quantity. Prices are consequently low. We note sales of 2,700 sacks of Humboldt at 90c to $1.10, 600 do Salinas at 75c to 85c, 350 do Bodege at 75c to 80c, 250 do Sunburnt Monterey et 60c, 300 do Russian River at 80c to 90c and 500 do Petaluma at 60c to 75c.

Oats.

Oats remains steady at about former quotations. We note sales of 350 of Black at $2.25, 700 hag of California at $2.30, 250 do at $2.27½ to $2.35, 100 do of Choice California at $2.40 and 1,450 do Oregon at $2.40 to $2.50. It is said that there now remains about 20,000 centals of last year's crop on hand.

Hops.

The Hop market is beginning to improve a little, and for the last two or three days has been more lively. Prices however, remein as before.

Wheat.

Wheat has been dull of sale this week, buyers being cautious, and it is seid that it is difficult to find purchasers at present for lots. The Liverpool price according to the Associated Press dispatches received at the Merchants's Exchange, remains the same as last week. Freights still remain nominally the same es last week. We note sales of 300 secks of inferior, at $1,67½; 600 do of coast at $1.75; 1,100 do fair coast, at $1.70; 12,400 do shrunken and fair, at $1.77½; 2,650 do, at $1.80; 4,500, at $1.82½; and 1,700 do, at $1.85. Exports have been very small last week, comprising only 3 car goes of 61,964 ctls. worth $115,944, of which the "Queensberry" to Qucenstown carried 18,151 centals, the "Casma" to Liverpool 20,448 do, and the "Sierra Nevada" to Liverpool 23,363 do.

Wool.

Receipts of new spring are beginning to come in more freely. Pricea have not improved. Sales have included 100,000 lbs. at 13½ cents to 15 cents for burry, and 17 cents to 20 cents for clean spring, 53,000 lbs. good to extra choice at 18 cents to 22½ cents, and 59,000 lbs. of spring shipping at market rates.

GENERAL MERCHANDISE.

Both imports and exports were very small in quautity last week. Import arrivals included only the "Mohongo," from Panama, with the usual cargo, the "Colorada," from China and Japan, with Teas, etc.; the "Oriflemme," from Portland, with a cergo of which we have already given the principal details, and the "Newberne," from the Colorado River, with Ore, Sulphur and Hides. Exports have aggregated ouly $213,468 in value. carried in six ships.

Bags are low, and have been sold for 15¼c. this week. A prominent dealer had 177,000 offered to him at 15¾c., payment in four months. There is an immense quantity on the way. This and the dry weather accounts for the dullness. Wool Sacks are selling at 60c. for 3½ lbs., and 70c. for 4 lb. Salmon are scarce, but the new stock will be soon in. Case Goods are getting scarce. The new season will not open for a good while yet. Business is quiet in Coals. There are very few coming in. Bellingham Bay Coal has been reduced 50c. at the wharf. Pig Iron is stiff, but there are no sales in consequence of the tightnesa of the money market. A large lot of old Yellow Metal was sold last week at 12½c.

The retail lumber dealers are sanguine that the wholesale men will soon make reductions. There are now about 1,000,000 stored up by the Puget Sound men, and when the present cargoes are unloaded there will be 2,000,000 feet in store with them. Provisions have remained unchanged. There is an immense quantity of Tallow in this city, and the market in consequence is dull.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$20 00
Rough rafuse, ₱ M	16 00
Rough clear, ₱ M	32 50
Rough clear refuse, M	22 50
Rustic, ₱ M	35 00
Rustic refuse, ₱ M	24 00
Surfaced, ₱ M	32 50
Surfaced refuse, ₱ M	22 50
Flooring, ₱ M	30 00
Flooring refuse, ₱ M	20 00
Beaded flooring, ₱ M	32 50
Beaded floor, refuse, M	22 50
Half-inch Siding M	22 50
Half-inch siding, ref. M	16 00
Half inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half inch Battens, M	22 50
Pickets, rough, ₱ M	14 00
Pickets, rough, p'nted	16 00
Pickets, fancy, p'nted	22 50
Shingles, ₱ M	3 00

PUGET SOUND PINE —Retail Price.

Rough, ₱ M	$25 00
Flooring and Step, ₱ M	37 50
Flooring, narrow, ₱ M	40 00
Flooring, 2d quality M	30 00
Laths, ₱ M	4 00
Furring, ₱ lineal ft	1c
Rough, ₱ M	25 00
Rough refuse, ₱ M	20 00

REDWOOD—Retail.

Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	27 50
Tongued and Grooved, surfacad, ₱ M	40 00
Do do refuse, ₱ M	27 50
Hal -inch surfaced, M	40 00
Rustic, ₱ M	42 50
Battens, ₱ lineal foot	1
Shingles ₱ M	3 50

DOMESTIC PRODUCE.

WEDNESDAY M., April 16, 1873.

BEANS.	
Beans, am'l wh. ₱	5 @ —
do, butter	4¾@ —
do, large, do	5 @ —
do, bayo	3 @ —
do, pink	3½@ —
do, pea	5¾@ —
BROOM CORN.	
Per ton	$40@120
DAIRY PRODUCE.	
Butter, Cal. fresh, ₱	@ —
do, ordin'y roll	22½@ —
do, choice	27½@ —
do, new firkin	27½@ —
do, pickled	28 @ —
do, New York	@ —
Cheese, Cal new	12 @ 15
do, Eastern	17 @ —
Eggs, Cal. fresh	25 @ 27
do, Oregon	— @ —
do, Eastern	— @ —
FEED.	
Bran per ton	17 — @18—
Middlings	25 00 @26—
Hay	15 00 @22 —
Straw	15 00 @ —
Oil cake meal	33 00 @ —
Corn Meal	30 00 @40—
FLOUR.	
Alviso Mills, bbl	4 25 @5 75
California	4 25 @5 75
City Mills	4 50 @5 75
Commer'l Mills	4 50 @5 75
Golden Gate	4 50 @5 75
Golden Age	4 50 @5 75
National Mills	4 50 @5 75
Santa Clara Milla	4 50 @5 75
Genesee Mills	4 50 @5 75
Oregon	4 50 @5 75
Vallejo Star	4 50 @5 75
Venus, Oakland	4 50 @5 75
Stockton City	4 50 @5 75
Lombard, Sac	4 50 @5 75
FRESH MEAT.	
Beef, fr quality	8 @ 9
do, second do	6 @ 7
do, third do	4 @ 5½
Veal	— @ 10
Mutton	6½@ 7
Pork, undressed	6½@ 7
do, dressed	8 @ 9
GRAIN, ETC.	
Wh't Cal. c'st.	1 75 @1 80
do, shipping	1 80 @1 82½
do, milling	1 80 @1 85
do, Oregon	— @1 85
Barley, Dark C'st	1 15 @1 20
do, Light	1 20 @ —
do, Brewing	— @1 37½
Oats, Coast	2 25 @ —
do, Light	2 30 @ —
Corn, White	1 15 @ —
do, Yellow	1 15 @ —
Buckwheat	1 25 @1 30
Rye	2 — @ —
HOPS.	
California, 1871	— @ —
do 1872	50 @ —
Eastern, 1872	62½@ —
MISCELLANEOUS.	
Beeswax, per lb	32½@ 37½
Honey, choice	10 @ 20
Los Ang. Honey	12½@ 25
Onions	5½@ 5
Flaxseed	3 @ —
anary do	4 @ 5
Mustard do, white	1½@ 2¼
do, brown	2 @ 3
Alfalfa	35 @ —
Ky. Blue Grass	50 @ —
Timothy	35 @ —
Italian Rye	18 @ —
Perennial do	35 @ —
NUTS.	
Peanuts per lb	— @ 5
Pecan nuts	16 @ 18
Hickory do	10 @ —
Brazil do	16 @ —
Coc'anuts, $10-0.90	00 @ —
Alm'da'd she	10 @ 12½
do, soft	20 @ 25
POTATOES.	
Sweet, per lb	— @ —
Humboldt	1 00@1 12½
Monterey	— @ —
Tomales	60@ 80
POULTRY & GAME.	
Live Turkeys lb.	22 @ 24
Dressed do	25 @ 26
Hens, per dz	8 50 @9 25
Roosters	8 50 @9 25
Chickens	5 00 @7 00
Ducks, tame, doz	10— @12—
Geese, per pair	3 00 @3 50
Hare, per doz	3 00 @3 50
Snipe, Eng., doz	2 00 @2 50
Venison, per lb	2 00 @2 50
PROVISIONS.	
Cal. Bacon, per lb	11½@ 14
Eastern do	10 @ 15
do sugared	13 @ —
Cal. Hams	— @ 13
Eastern do	15 @ 16
Cal. Smoked Beef	12 @ —
WOOL, ETC.	
Spring, short, lb	17 @ 18
do choice	19 @ 21
Burry	15 @ 16
Hides, dry	17 @ 17½
do wet salted	9 @ —
Tallow	7 @ —

GENERAL MERCHANDISE.

BAGS.	
Eng. stand. Wh't	15½@ —
Flour Sacks ⅛s	13½@ 16
¼s	8½@ 9½
Stand. Gunnies	— @ 17½
" Wool Sacks	60 @ 70
" Barley do	17 @ —
Hessian 40-in. gds	— @ 12
do 60	18 @ —
CANNED GOODS.	
Asst'd Pie Fruits in 2½ lb cans	3 00 @ —
do Table do	3 75 @ 4 —
Jams & Jellies	4 — @ 4 25
Pickles ½ gl	3 25 @ 3 75
COAL—Jobbing.	
Australian, ₱ ton	14 — @15 —
Coose & Bel. Bay	8 50 @ —
Seattle	11 00 @ —
Cumberl'd, cks	26 00 @ —
do bulk	22 50 @23—
Chile	— @ —
Lehigh	20 00 @ —
Liverpool	11 00 @12—
West Hertley	14 00 @16—
Scotch	12 00 @14—
Scranton	17 00 @ —
Vancouver's Isl	12 00 @14—
Charcoal, ₱ bk	1 00 @ —
COFFEE.	
Costa Rica per lb	18½@ 19¼
Guatemala	17½@ 18½
Java	22 @ 23
Manilla	17½@ —
Ground in cs	27½@ —
Chicory	8 @ —
FISH.	
Pac. Dry Cod, new cases	— @ —
Eastern Cod	8 50 @9 —
Salmon in bbls	7 50 @ —
do ½ bbls	4 50 @5 00
do 2½ lb cans	— @3 50
do 2lb cans	— @3 50
do 1lb cans	— @2 50
Pick. Cod, bbls	— @ —
do ½ bbls	— @ —
Pug. Sd. Smok'd	— @ —
Herr'g, bxs	— @ 50
Mack'l, No. 1, ½bbls	10 00 @13 00
" Extra	@14 00
" in kits	2 25 @3 00
" mess	— @4 00
" ex. mess	— @5 00
NAILS.	
Assorted size, lb	5¾@ 9 —
OILS.	
Pacific Glue Co. Neat F'ts No. 1	— @ —
Pure	1 25 @ —
Castor Oil, No 1	1 35 @1 40
do do No. 2	1 25 @1 30
Cocoa Nut	60 @ —
Olive Plagniol	5 00 @ —
do Possel	4 75 @ —
Palm	9 @ —
do Bacaciulpi	— @ —
Linseed	1 05 @1 10
China nut in cs	75 @ 80
Sperm, crude	1 25 @ —
do bleached	1 90 @ —
Coast Whales	40 @ 45
Polar, refined	55 @ —
Lard	95 @ —
Coal, refined Pet	40 @ 42
Oleophine	40 @ —
Devoe's Bril't	44 @ 46
Long Island	42 @ —
Eureka	42½@ —
Downer Kerose'e	55 @ —
Gas Light Oil	42 @ —
PAINTS.	
Stand. Wh. Lead	11½@ 12
Whitening	— @ 2
Chalk	— @ 3
Paris White	— @ 3
Ochre	— @ 3
Venetian Red	— @ 3
Red Lead	— @ 11
Litharge	— @ 11
RICE.	
China No. 1, ₱ lb	6¾@ 7
do 2, do.	6 25 @6 50
Japan	6½@ 7
Patna	7 @ 7½
Hawaiian	8¾@ 9
SALT.	
Cal. Bev, per ton	5 00 @15—
Carmen Island	14 00 @30—
Liverpool fine	24 @ —
do coarse	19 00 @20—
SOAP.	
Castile, ₱ lb	12 @ 12½
Local brands	5½@ 7
SPICES.	
Allspice, per lb	— @ 16
Cloves	27½@ —
Cassia	30 @ —
Nutmeg	1 00 @ —
Whole Pepper	23 @ 24
Ground Allspice	25 @ 30
do Cassia	45 @ 50
do Cloves	30 @ 35
do Mustard	30 @ 32½
do Ginger	25 @ 30
do Pepper	25 @ 30
do Mace	1 50 @1 75
do Coffee	25 @ —
SUGAR, ETC.	
Cal. Cube per lb	12¾@ —
Cirole A crushed	12¾@ —
do granulated	11¾@ 12
Golden C	10 @ —
Hawaiian	20 @ 22½
Cal. Syrup in bls.	52½@ —
do in ½ bls.	55 @ —
do in kegs	60 @ —
TEA.	
Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 35
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpowder, Cant.	30 @ 42½
do Pingsuey	50 @ 90
do Moyune	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 1½ lb	35 @ 65
do ½@1 lb paper	30 @ 55
TOBACCO—Jobbing.	
Bright Navys	52½@ 60
Dark do	50 @ 55
Dwarf Twist	60 @ 65
12 inch do	60 @ 67½
Light Pressed	65 @ 75
Hard do	60 @ 70
Conn. Wrap'r	40 @ 50
Penn. Wrapper	35 @ 45
Ohio do	30 @ 40
Virgi'a Smok'g	60 @ 95
Fine ot ohe'g, gr	8 50 @9 25
Fine cut chewing, buc'ts	75 @ 90
Banner fine cut	9 25 @ —
Eureka Cala	8 50 @ —

FRUIT MARKET.

The supply of Oranges, Lemons, etc., both from Tahati and Los Angeles has been very large. The supply of Apples is very small, only a comparative few having been received by the last steamer from Oregon.

FRUIT MARKET.	
Tahati, Or. ₱ 1000	35—@40 —
Cal. do	30 —@40 —
Limes, ₱ M	15 00@20 00
Cal. Lemons, 1000	4 —@ 5 —
Bananas, ₱ bnch	2 50@ 4 —
Pineapples, ₱ dz	10 —@ —
Apples, eat'g, bx	2 50 @3 50
" Cooking	2 — @2 50
Pears, Eating	50 @2 00
" Cooking	1 50 @2 00
Pomegran's, ₱ 100	— @ —
Grapes, Mission	— @ —
Rose of Peru	— @ —
Blk Hamburg	— @ —
Black Prince	— @ —
Muscat of Al'r	— @ —
Flame Tokay	— @ —
Black Morocco	— @ —
Wine Grapes	— @ —
DRIED FRUIT.	
Apples, ₱ lb	6 @ 8
Pears, ₱ lb	6 @ 8
Peaches, ₱ lb	10 @12½
Apricots, ₱ lb	— @—
Plums, ₱ lb	5 @ 8
Pitted, do ₱ lb	18 @20
Raisins, ₱ lb	8 @10
Black Figs, ₱ lb	5 @ 8
White, do	10 @15
VEGETABLES.	
Cabbage, ₱ dz	— @75
Garlic, ₱ lb	5 @ 6
Green Peas	5 @ 8
Green Corn ₱ doz	— @—
Marrowfat Squash per ton	— @? 50
Artichokes, ₱ lb	2 @—
String Beans, ₱ lb	— @—
Lima Beans	6 @ 7
Peppers dry	20 @25
Okra	20 @35

Send us Communications.—They will be respected If you have not time or the experience to Write finished articles, send us facts brief and plain We will take care of them. Remember that writers improve themselves with others by use of the pen. Officers of societies, clubs and meetings, please report.

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule, from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, April 18, 1873.

IRON.—	
Scotch Pig Iron, ₱ ton	$60 00 @ — —
White Pig, ₱ ton	60 00 @ — —
Refined Bar, bad assortment, ₱ lb	— — @ — 06
Refined Bar, good assortment, ₱ lb	— — @ — 06¼
Boiler, No. 1 to 4	— 05½@ — 06
Plate, No. 5 to 9	— 06½@ — 07
Sheet, No. 10 to 13	— 07½@ — —
Sheet, No. 14 to 20	— 08 @ — 08½
Sheet, No. 24 to 27	— 08 @ — 09
Horse Shoes, per keg	9 00 @ —
Nail Rod	11 @ —
Norway Iron	9 —
Rolled Iron	6½ —
Other Irons for Blacksmiths, Miners, etc.	6½@ 9¼
COPPER.—	
Braziers	— 35 @ — 38
Copper Tin'd	— 50 @ — —
O. Nile 's Pat	— 55 @ — —
Sheathing, ₱ lb	— — @ — 29
Sheathing, Yellow	— 28 @ — 29
Sheething, Old Yellow	— — @ — 12½
Composition Nails	— 29 — 30
Composition Bolts	— 29 — 30
TIN PLATES.—	
Plates, Charcoal, IX ₱ box	14 50 @ 15 —
Plates, I C Charcoal	12 50 — 14 —
Roofing Plates	13 00 — 13 50
Banca Tin, Slabs, ₱ lb	— 40 — 42½
STEEL.—English Cast, ₱ lb	— 20 — 25
Drill	20 — —
Flat Bar	22 — —
Plough Points	16 — 17
Russia (for mould boards)	17 — 18
ZINC	9¾ — 10
Zinc, Sheet	— 9 — 10
NAILS—Assorted sizes	— 5¾@ — 9

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, April 16, 1873.

The market for Sole Leather continues the same. French Calf steady at old prices, with light demand.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, sacond choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Lemoine, 16 to 18 Kil., ₱ doz	75 00@ 77 50
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	66 00@ 72 00
Ogeran Calf, ₱ doz	54 00@ —
Simon, 16 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25 —
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00 —
Harness Leather, ₱ lb	30@ 37½
Fair Bridla Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	21@ 25
Wax Side Leather, ₱ foot	20@ —
Eastern Wax Leather	26 —

San Francisco Retail Market Rates.

WEDNESDAY NOON, April 16, 1873

FRUITS, VEGETABLES, ETC.

Vegetables are in plentiful supply, particularly Turnips and Carrots, which have fallen. Rhubarb is in large supply. There are no Tomatoes in the market. Mushrooms are nearly out and are dear. Strawberries are very plentiful and are cheap; in fact there are no other fruits now coming in from the country. Oranges and Lemons, both foreign and domestic, are in good supply.

Apples, pr lb	10	@	12½	Celery, ₱ doz	75 @ —
Pears, per lb	10	@	15	Cucumbers, ea	15 @ 25
Apricots, lb	50	@	62½	Tomatoes, ₱ lb	12½@ —
Pine Apples, each	75	@	1 00	Green Peas	6 @ 12½
Bananas, ₱ doz	—	@	75	String Beans	20 @ —
Canteleups	—	@	—	Cress, ₱ doz bun	— @ 20
Watermelons	—	@	—	Dried Herbs, lb	25 @ 25
Italian Chest'ts	50	@	—	Garlic	8 @ 10
Cal. Walnuts, lb	20	@	—	Green Corn, doz	— @ —
Cranberries, ₱ g	—	@	1 00	Lettuce, ₱ doz	20 @ 35
Strawberries, lb	20	@	—	Mushrooms, ₱ lb	— @ 50
Raspberries, lb	—	@	—	Horseradish, ₱ lb	20 @ 25
Gooseberries	—	@	—	Okra, dried, ₱ lb	50 @ —
Cherries, ₱ lb	—	@	—	do fresh, lb	— @ —
Oranges, ₱ doz	50	@	1 00	Pumpkins, ₱ lb	2 @ 3
Limes, per doz	—	@	25	Parsnips, doz	20 @ 25
Figs, dried Cal.	12½	@	25	Parsley	15 @ 20
Figs, Smyrna, lb	25	@	35	Pickles, ₱ gal	50 @ 75
Asparagus, lb	10	@	12½	Radishes, doz	20 @ 25
Artichokes, doz	35	@	50	Summer Squash	— @ —
Beets, ₱ doz	20	@	—	Marrowfat, do	2 @ 3
Potatoes, New ₱ lb	4	@	5	Hubbard, do	2 @ 3
Potatoes, sweet, "	2	@	3	Dry Lima, shi	8 @ 10
Broccoli, ₱ pc	10	@	15	Spinage, ₱ bskt	25 @ 50

Stock Notices.

H. B. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.



GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

Public Sale of Thoroughbred Cattle.

MOSES WICK will sell at his ranch, six miles west of Oroville, Butte county, Cal., on the 11th day of April, 1873, at 10 o'clock A. M., 25 head of Thoroughbred Durham Cattle, to wit: Ten head of Cows and Heifers, and 15 head of Bulls, from four months old to four years and upwards.

This herd embraces the same cattle that took the FIRST PREMIUM as "the best herd of not less than ten, all thorough bred," over all competitors at the last State Fair. At the head of this herd stands the famous Bull "Crown Prince."

There will also be sold, 12 head of Graded Cattle, from three-quarter to seven-eighth Durham.

TERMS OF SALE—When desired, ten months' time will be given, with approved security. Interest, 10 per cent. per annum.

For further particulars address

MOSES WICK,
fe15-2m Oroville, Butte County, Cal.

PURE BLOOD & GRADED ANGORA GOATS

16 Pure Blood Bucks and Ewes.

250 Grades—all Ewes.

They are ½, ¾ and ⅞ Grades.

100 Kids, of both Sexes, Graded.

I will sell the above at low prices. Address, soon,

JOHN DONALD, San Mateo, Cal.
12v5-tf

DURHAMS FOR SALE.

Three Fine Thoroughbred Cows, and Two Young Bulls.

All superior animals. Enquire of

19v5-tf E. S. HOLDEN, Stockton.

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v2-3m

THE HORTICULTURAL SPRING EXHIBITION

OF THE

Bay District Horticultural Society

WILL OPEN ON MAY 1st, 1873, AND CONTINUE FOR NINE DAYS,

—AT—

Horticultural Hall,

Corner of Post and Stockton Streets,.....SAN FRANCISCO.

This will be chiefly a Floral Exhibition However, all Horticultural products will be received.

Amateurs are earnestly invited to contribute and compete for special prizes offered.

For particulars inquire of the Secretary,

F. A. MILLER,
No. 622 Clay Street, San Francisco.
ap12-4t

CONNECTICUT MUTUAL

LIFE

Insurance Company,

OF HARTFORD.

Assets,	- - - -	$32,000,000
Surplus,	- - - -	5,670,000

Ratio of Expense to Receipts, 8. 12.

DIVIDENDS PAID ANNUALLY,

ommencing on Life Policies, with from 20 to 25 per cent. the First Year, 25 to 30 the Second, and increasing every year, thereby reducing the cost of Insurance with the age of the Policy.

In Life Insurance, select an OLD COMPANY WITH EXPERIENCE, and having a LARGE SURPLUS.

Remember that Large Dividends, and Consequently

CHEAP INSURANCE,

ARE SECURED ONLY BY

Economical Management.

High Rates of Interest,

and Favorable Mortality.

In all these vital points, look carefully into the standing of all Life Insurance Companies, and the

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WILL BE FOUND IN THE FRONT RNK.

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General Agent for the Pacific Coast.
20v25-eom ep

LINFORTH, KELLOGG & CO.,

Nos. 3 and 5 Front Street..... AN FRANCISCO

IMPORTERS AND JOBBERS

—OF—

AMERICAN, ENGLISH AND GENERAL HARDWARE, AND CUTLERY.

Wostenholme's Pocket Cutlery,
Blacksmith and Mining Tools,
Rope, Iron, Steel, Ammunition,
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HAY CUTTERS, CORN SHELLERS, CHURNS AND WOODEN WARE, IRON AND LEAD PIPE, RUBBER HOSE, BELTING,—RUBBER AND LEATHER.

Sole Agents for

THE IMPROVED "PACIFIC RAILROAD" and "MONITOR" GANG PLOWS.

☞ These Plows are Deep Tillers, and are just what the farmers need. They can be run by a small boy, as the lifting out of the ground is done by horse instead of hand power. Farmers should examine these Plows before purchasing.

"WORLD" MOWERS AND REAPERS,
"TORNADO" THRESHERS,
RUMSEY & CO.'S FORCE AND LIFT PUMPS,
HYDRAULIC RAMS, ETC.

Orders respectfully solicited. Catalogues and prices furnished on application. 19v4-6m



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.

—ALSO—



THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

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☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS."—*Alexander.*

"You get no FIGS from THISTLES"—*Old Proverb.*

I have 30 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
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Office and Rooms, at the Morton House, Post street.

SOUTH DOWN SHEEP.

From my flock of thoroughbred Sheep, of this celebrated breed, I am willing to sell a few head of both Rams and Ewes.

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40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

The Trotting Stallion NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderhilt in three straight heats in 2.25½, 2.25¾, 2.24½. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25½, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Naubuc Farm, San Lorenzo, Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,
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FOR HEAVES, STAGGERS, FITS, COLIC, LUNG FEVER, COLDS, COUGHS,

And used with great success for the EPIZOOTIC.

Wilder's Fox Ointment,

For Spavins, Curbs, Splint, etc. Send for circular containing reference.

Money refunded if satisfaction is not given.

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EPIZOOTIC, YIELD!

Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H. H. H Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

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Stockton, Cal.
For sale everywhere. 12v5-3m

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For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent double motion, by which (simply on moving a lever at the hand of the driver, either a fast or slow speed may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

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Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
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Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

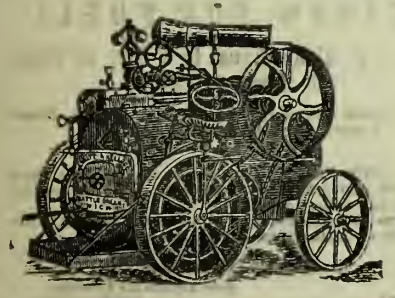
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CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

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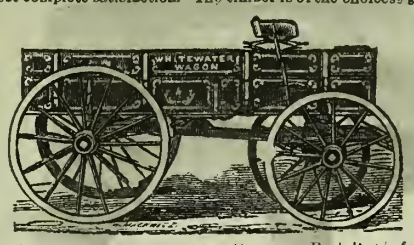
Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. CHAS. F. BECHTEL & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v8-3m

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THE WHITEWATER WAGON.

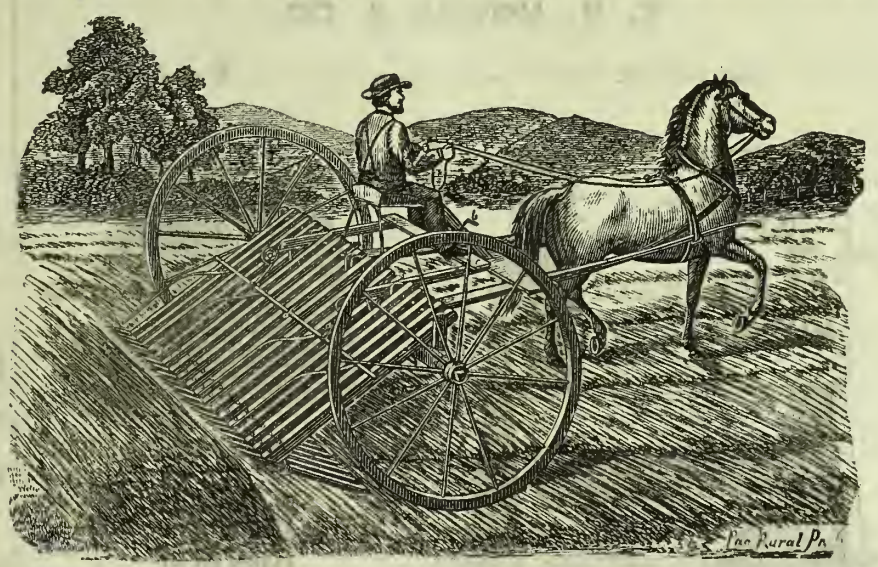
PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with elope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in hot boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. They **are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeine put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO.,** San Francisco, General Agents for the Pacific States. 14v5tf



BONNEY'S

PATENT EXTENSION TOOTHED HAY RAKE.



Saves more and better Hay than any other Rake in use, being free from dirt and dust. Holds twice the amount, as the teeth can be used any length. Runs light and is easily handled.

FIRST PREMIUM AT STATE FAIR, SACRAMENTO.

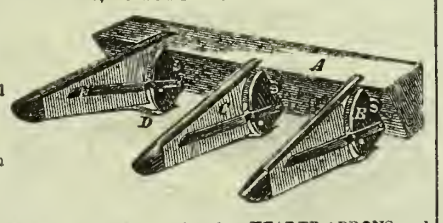
Manufactures also the old Stationary

Wood-Toothed Rake,

(Improved,) which I sell cheaper than any other Wheel Rake. Also my

Patent Adjustable Grain Lifter,

For Header, which can be run at any inclination, as seen at D in cut; can be attached to Header in 15 minutes; is the cheapest in use and gives the best satisfaction.



Parties can save additional the cost of a set in one day's cutting. Make to order also, HEADER APRONS and GRAIN BELTS of all kinds. All orders or enquiries to

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GREAT IMPROVEMENT IN PACKAGES.

Wood for Packages instead of Paper, Tin or Glass.

FOR GROCERS.	FOR FARMERS.	FOR FRUIT CANNERS.
Sugar Boxes,		Plum Boxes,
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All Kinds of Boxes Made from Wood—Boxes Round, Square or Octagon.

A New Discovery Makes Wood Impervious to any Liquid.

Another Cuts Wood as Thin as any Pasteboard and Smooth as Paper.

Another Makes a Strong Corner Without a Nail.

For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,
BUCKEYE REAPER,
BUCKEYE SELF-RAKE REAPERS,
HAINES' GENUINE HEADER,

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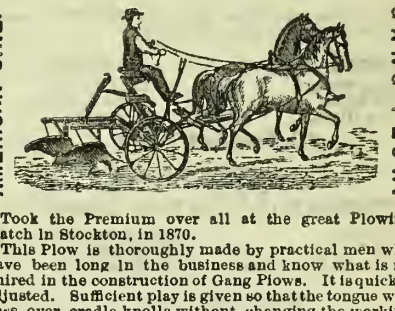
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TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,
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MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

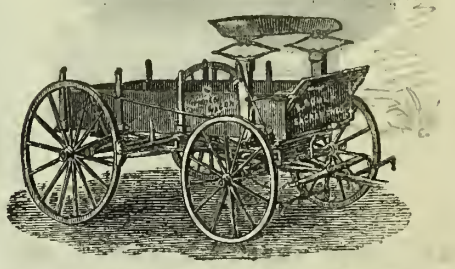
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The Latest and Best in the Country.

HAS A DOUBLE MOTION.

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for illustrated pamphlet, and don't fail to see the ÆTNA before buying.

TREADWELL & CO.,
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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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THE BAIN WAGONS.



These Wagons are now recognized as

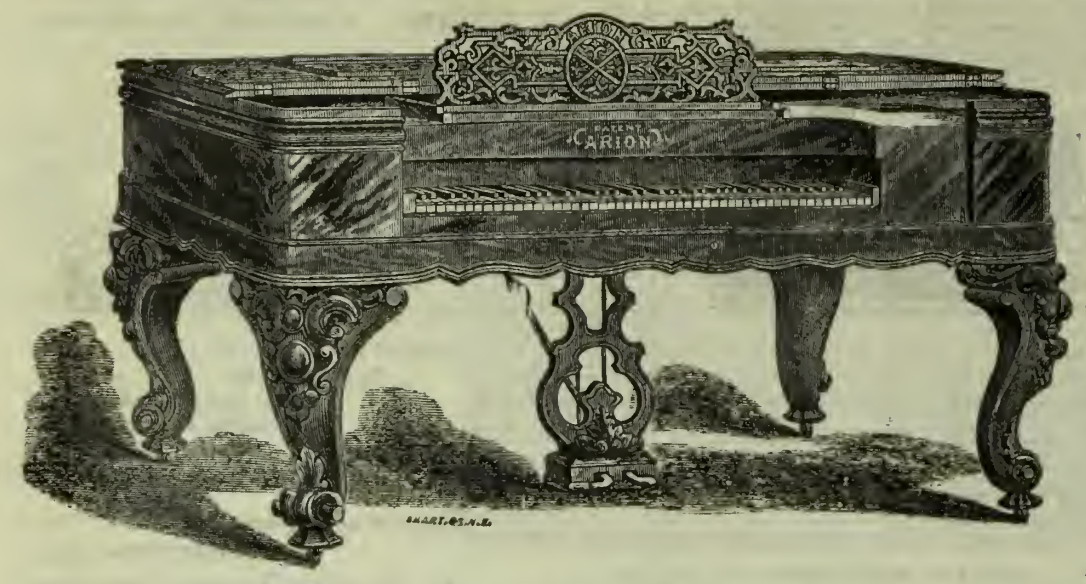
The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.

We are now receiving a full stock of
Farm Wagons,
Freight Wagons, and
Header Wagons.

SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,
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Arion Piano.

For the benefit of persons residing in the country, who cannot procure the assistance of a professional person, we submit for their consideration a few "POINTS"—which it is well to consider—to guide them in selecting a Piano:

1. Construction upon NATURAL Principles.
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Whilst there are many Pianos that are manufactured which possess some of these "points," and excel in them, there are none which possess them all combined, as our instruments do; and we feel confident of success, as we dispose of no instrument but what will be a

PERMANENT GUARANTEE OF QUALITY AND SUPERIORITY

And, if desired, we will furnish purchasers with

A Written Guarantee for Five Years.

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The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
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All Imported Seeds.

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Grass and Clover Seeds.

Timothy,	English Rye Grass,
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ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

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Improve Your Poultry.

It Costs No More to Keep Good Fowls than Poor Ones!



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The Best Known

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GEO. B. BAYLEY,

Box 650.....San Francisco.

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Great Cattle Sale

—AT THE—

WALSH RANCH, COLUSA COUNTY, CAL.

—ON—

Wednesday, April 30th, 1873.

The undersigned will offer for sale at public auction, at the WALSH RANCH, in Colusa County, Cal., on WEDNESDAY, APRIL 30th, 1873, commencing at 10 o'clock A. M., some

Ten or Twelve Hundred Head of Fine American Stock Cattle.

The reputation of the Cattle bred on the above named Ranch is well and favorably known, and the lot now offered for sale is regarded by competent judges to be unequaled by any band in the State. Among these Cattle are to be found a fine lot of young Bulls and some superior Milch Cows. The sale will be made in lots to suit purchasers.

There will also be offered, after the above, some fine Thoroughbred Stock, with full and complete pedigrees.

The HON. JOHN BOGGS, of Colusa County, will conduct the sale.

TERMS OF SALE—Cash, U. S. gold coin.

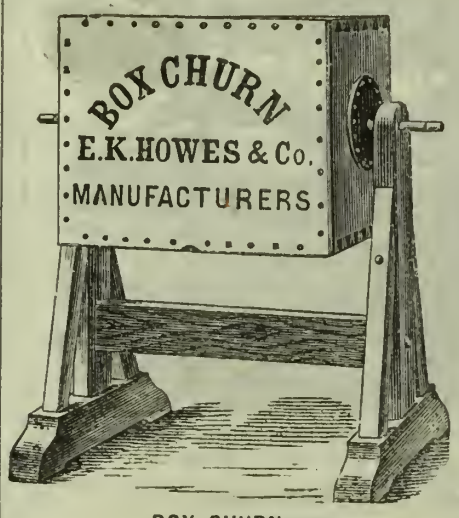
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SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

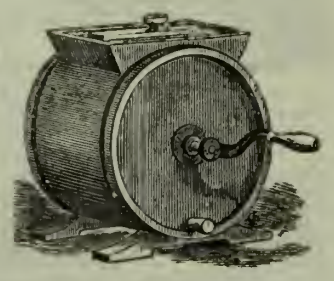
PURCHASERS please say advertised in Pacific Rural Press

E. K. HOWES & CO.,

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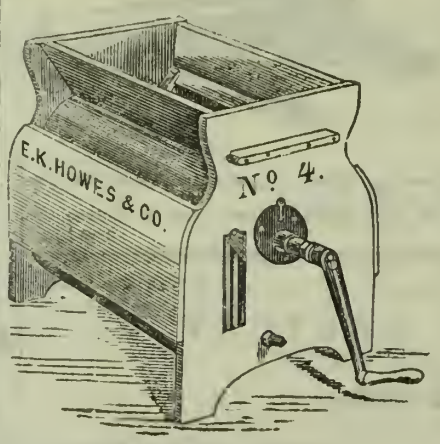


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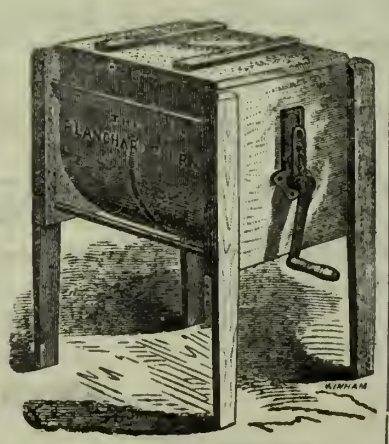


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SOLE MANUFACTURERS ON THIS COAST OF

ALL DESCRIPTIONS OF CHURNS AND DAIRYMENS' REQUISITES.

Wholesale and Retail.

Send for Price List and Illustrated Catalogue.

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Write for a Price List to J. H. JOHNSTON,



179 Smithfield St., Pittsburgh, Pa.

Breech-Loading Shot Guns, $40 to $300. Double Shot Guns, $3 to $150. Single Guns, $2 to $20. Rifles, $5 to $75 Revolvers, $6 to $25. Pistols, $1 to $8. Gun Material, Fishing Tackle, &c. *Large discounts to dealers or clubs.* Army Guns, Revolvers, etc., bought or traded for. Goods sent by express C.O.D. to be examined before paid for.

CHOICE POULTRY.

The advertiser will supply white face black Spanish Eggs for hatching in exchange for one-half the chickens raised—to be delivered to him at the age of 4 months.

ALSO, FOR SALE Eggs from all sorts of Fancy Fowls.

Address Postoffice Box 1349, San Francisco, or leave orders at 19 New Montgomery street.

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Light Brahmas.

New importations having arrived, I will sell the remainder of my old breeding stock, pedigree furnished, at one-half cost of importation.

Eggs

From new importations of BRAHMAS and from LEGHORNS, etc., for sale, as usual, at $5 per dozen.

When less than 50 per cent. hatch I replace the eggs. My stock is surpassed by none on this coast.

a19-16p-4t M. EYRE, Napa, Cal.

Working Class, MALE OR FEMALE, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 173 Greenwich st., N. Y.

11v5-24t

New York Seed Warehouse.

ESTABLISHED IN 1852.

R. J. TRUMBULL,

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Wholesale and Retail Dealer in



The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSKMELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v5-2m

EGGS FOR HATCHING

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THE FINEST BRED FOWLS IN AMERICA.

Twelve First Premiums

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LIGHT BRAHMAS, Seven Different Strains; DARK BRAHMAS, Imported from England and Ireland; HOUDANS, direct from France; SILVER SPANGLED HAMBURGHS, (said to lay 240 Eggs per year); GOLDEN POLANDS, Non-Setters and Fine Layers; SILVER POLANDS, Non-Setters and Fine Layers; BUFF COCHINS, JAPANESE BANTAMS, BLACK AND RED GAMES, Finest in the World.

Also, Pigeons.

Ponters, Carriers, Fantails; and Madagascar Lop-Eared Rabbits.

PIGS.—China and Chester Whites, the Largest and Best Bred in America.

Eggs and Fowls for Sale.

Apply to THOS. E. FINLEY, Manager,

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OFFICE—No. 113 Leidesdorff street, S. F. 5v5

A GREAT UTILITY!

STRAW FOR FUEL!

A Ton of Straw Equal to a Ton of Wood in Making Steam!

The Patent Straw-Feeding Attachment to Steam Furnaces for using STRAW AS FUEL for THRESHING ENGINES.

MOREY'S PATENT—No danger of Fire—The great expense and difficulty of obtaining wood on treeless plains and valleys overcome.

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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, APRIL 26, 1873. [Number 17.

The Studebaker Brothers.

The Studebaker wagons in their varieties of light and heavy make, adapted to the varied uses of the road and the farm, having become so nearly one of the "institutions" of California—so largely are they in use here—that it may not be uninteresting to those who have patronized the firm or their agents, to learn something of the extent of their business in the wagon-making line. We quote the following from an Eastern journal, the editor of which doubtless knows whereof he writes:

"Our Illustration Shows

The extensive wagon works of the Studebaker Bros. Manufacturing Co., at South Bend, Ind. As long ago as 1852 the Studebaker Brothers commenced to make wagons at South Bend on a small scale, without capital in money, but with a firm purpose to succeed, and a perfect mechanical knowledge of the business. From that time to 1856, they slowly increased their facilities, as money was obtained for their wagons, which the farmers were beginning at an early day to find superior to any in the market.

In 1857 the firm made a large number of Government wagons for the expedition across the plains; and now they are selling hundreds of wagons to the industrious people of the Territories. Thus by degrees this began to swell in volume. During the war of 1861, '62 and '63, they turned out eight complete wagons a week, or 416 a year. Still on the road of progression, they established another branch at St. Joseph, Mo., in 1865, and the following year built an addition to their brick shop.

In 1868 the business had grown to such proportions, and the capital required to carry it on was so large that the brothers incorporated into a stock company, under the laws of Indiana, with a capital of one quarter of a million dollars. Since this important event, the business was still further extended, until in 1870 they built 6,040 farm wagons, 435 carriages, buggies and spring wagons, 30 sleighs and sleds, the average amount of their manufactures for the year being $573,111.62, with an average number of 260 hands employed constantly. Still progressing, in 1871 they built 6,285 wagons, 250 carriages and buggies, 250 spring wagons and 300 steighs and sleds, the volume of business being represented by $622,910, employing 285 hands. In the same year an addition was also built to complete the carriage shop. In 1872 disaster fell upon them in the shape of a fire, which destroyed the wood shop, which burned on the 17th of June.

The Great Factory.

The business had thus grown up from a small beginning to one of the largest in the West, and it was found necessary to have larger facilities for turning out wagons which made the name of Studebaker a household, or, rather, a farm-hold word all over the land, for these wagons have been shipped everywhere throughout this country. So it was decided to build the massive factory which we illustrate, and which we will now describe—R. Rose, Esq., being the architect.

The width of this immense building is 62 feet; in length it is 868 feet. The structure is partly three and partly six stories. The outside linear measure is about a half mile. Its floorage is over five acres, while the other buildings, for storage, drying, etc., cover about two and a quarter acres! The engine house is very large, being 84x58 feet. The engine is of 200 horse-power, and runs a main shaft of 400 feet, and 200 feet of counter-shafting. The size of three departments is as follows:

Machine Shop	226 by 62 feet, 3 stories.
Blacksmith Shop	176 by 62 feet, 3 stories.
Paint Shop	161 by 62 feet, 3 stories.

The north elevation is 130 by 62 feet, six stories, and the east elevation, also six stories, 161 by 62 feet. These elevations have a Mansard roof, with a beautiful tower and a flag staff. Herein are the large warehouses, offices, etc., and here shipments are made directly upon the railway, a track being laid for their special accommodation.

There are two basements, one 130 by 62 feet, the other 161 by 62 feet.

Forty forges, with blasts operated by machinery are in the smith shop. Five large elevators, of superior construction, bring all the floors into immediate connection. The interior of these buildings are filled with all kinds of useful and labor-saving machinery, with a capacity for turning out wagons at the rate of one for every ten minutes of working time.

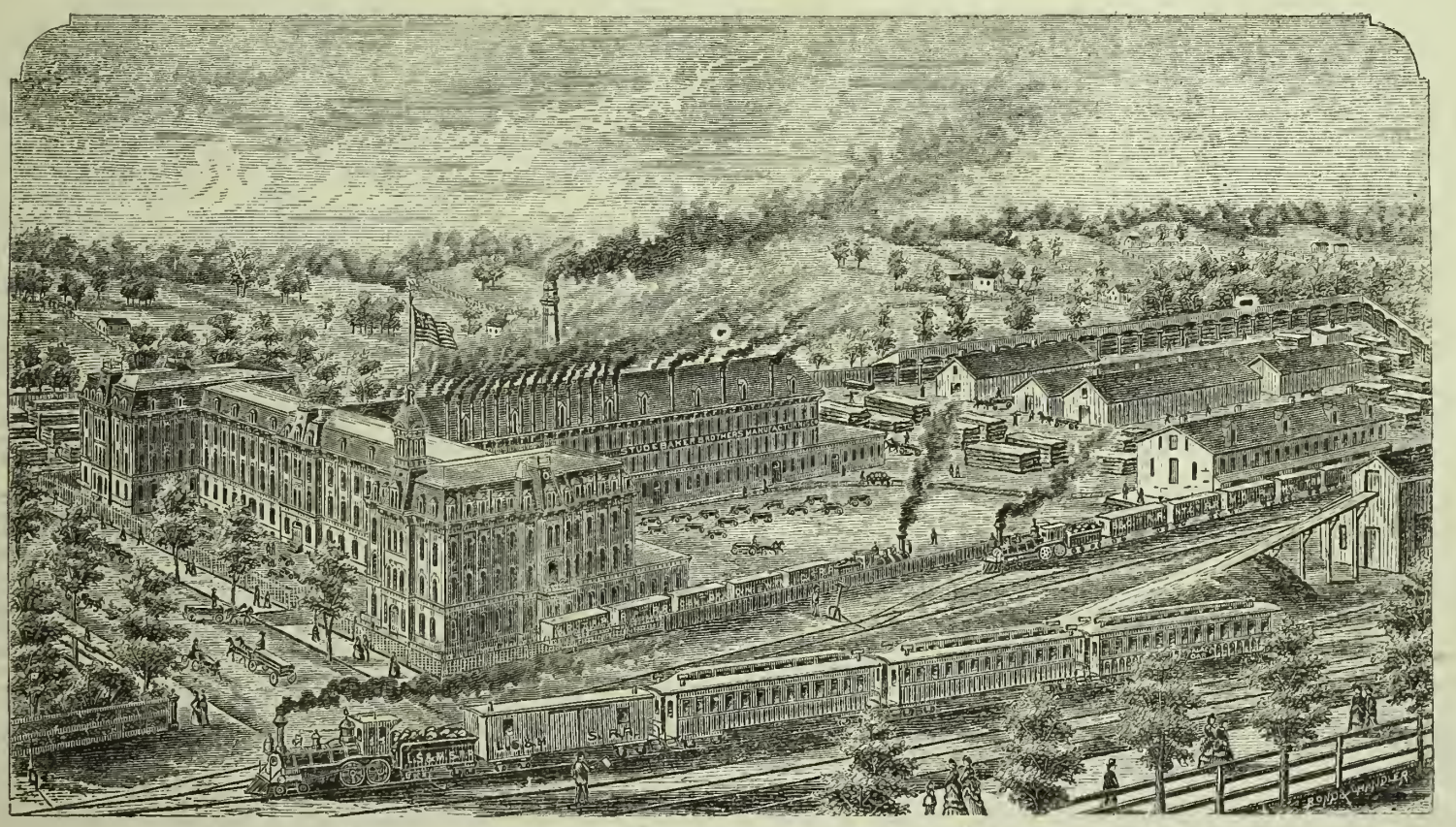
The grounds actually occupied for wagon factory, carriage shops, offices, repositories, dry-houses, lumber sheds, etc., comprise thirteen and three-eighths acres. Of this land, ten and one-fourth acres are in one compact body, lying directly south of and adjoining the Lake Shore & Michigan Southern Railway. A substantial brick fence or wall will enclose the premises. Every known appliance for extinguishing fire is ready for use. In the northeast corner elegant offices, with fire-proof vaults, and all possible conveniences, are provided. The shipping rooms open upon the track of the Lake Shore & Michigan Southern Railway, and are very commodious and convenient. But this is not all. On Jefferson and Michigan streets, are the large coach and carriage factory of this company, occupying three-fourths of an acre. The building is 320 by 44 feet. The outside linear measurement is 728 feet. The north elevation is 100 by 44 feet, four stories above basement. The south elevation is 93 by 34 feet, three stories above the basement. The east elevation is 122 by 50 feet, two stories. All are brick. The total floorage is one and a quarter acres. Here are found blacksmith shops, with 35 forges, wood shops, painting, varnish and trimming rooms, repository, etc. The machinery is driven by a 40 horse power engine. The summary is as follows: Ground occupied for manufacturing purposes, 13⅛ acres; ground occupied by wagon manufactory, 10¼ acres; average length of building, about 1,200 feet; average hight of buildings, over 3 stories; ground area of buildings, over 2 acres; aggregate area of floors, 6⅞ acres; length of sheds, about 3,000 feet; width of sheds (average), 40 feet; ground covered by sheds, 2⅛ acres; one engine, 200 horse-power; one engine, 40 horse-power; length of shafting about 1,000 feet.

They have all the best labor-saving machinery in the country for their purposes. The easy capacity of the works is over 15,000 wagons per annum, and carriages and other fine work without limit, giving employment to 500 men in the various departments. Three and a half million pounds of iron and five million feet of timber are used annually. We may further add as an item calculated to impress the mind with the magnitude of these works, that over three million of brick, and two and a half million feet of lumber have been used in their construction.

The stock of material possessed by the Studebaker Bros. Company is unequalled. The year 1873 will undoubtedly show them to be the first wagon makers of the age—indeed of any age.

Their wheels, the most essential part of a wagon, are very superior. Experience and the severest tests, as well as theory, have proved beyond a doubt that the slope shouldered spoke is stronger, more durable, and every way better than any other, and this they use exclusively."

Mr. E. E. Ames, of Sacramento, is the general agent for this mammoth establishment for the Pacific Coast, his office, general depot and warehouse are at numbers 207, 209, 217 and 219 K street, Sacramento. After having spent three years in the introduction of the wagons made at this noted factory, and having carefully studied the wants of the country and become acquainted with the style of wagon needed in California and Nevada, Mr. Ames, who went East, informs us that he induced the Studebaker Bros. Manufacturing Company to change their patterns and to make a wagon especially adapted to this coast climate and all other things considered, conforming to the style and notions of our people, and that he now offers a new and improved brand of the Studebaker wagons, called the


STUDEBAKER BROTHERS MANUFACTURING COMPANY
STUDEBAKER BROS. MFG. CO.
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Farmers in Council.

San Jose Farmers' Club.

Club met April 12, President Casey presiding.

For discussion next Saturday, it was ordered that an essay be prepared on "the best and most economical crops for home consumption, and the best methods of raising the same on the small farms of this valley;" and that after the reading of the essay, the question shall be open for general discussion.

The regular question for discussion being "What is the best method of retaining the moisture in the soil of this valley?"

Mr. Hobson thought the ground should be plowed early and deep, and rolled, and just before the late rains to plow and roll it again; and let all subsequent stirring of the soil be with a cultivator or harrow.

Mr. Berglen thought the artesian wells of the valley drained the moisture from the surrounding soil, and he thought they should be prohibited by law. He also endorsed Mr. Hobson's idea.

Mr. Cottle said the way to retain moisture, was to put the land in good condition and allow nothing to grow upon it except the crop. In regard to Mr. Berglen's idea in regard to artesian wells, he did not believe they had any effect on the productiveness of the soil. The artesian wells have changed the character of the land in the willows, and made it much more valuable, but he did not think they have changed the character of other lands in the least.

Mr. Garrigus said the change of the ground in the willows is due to the fact that the channel of the Los Gatos creek is ten or twelve feet deeper than it was ten years ago, and this caused the drainage; not the artesian wells. He cited instances showing that the wells do not affect the surface water to the extent most people suppose. He said he had raised as good a crop with the surface water 160 feet deep as has been raised where it was only ten or fifteen feet to the surface water. He thought the true way to retain moisture in the soil was that suggested by Mr. Hobson. In sandy localities, by planting pumpkin and other vines, moisture could be preserved throughout the driest seasons.

Mr. Bergen contended that the artesian wells drained the water from the surface, and caused the moisture to dissipate.

Mr. Hobson said that before there were any artesian wells in the valley we had dry land, and even where the surface water was within five feet of the surface, the ground was subject to drouth unless we had a rainy season. He thought the sinking of the surface water was due to the deepening of the channels of our creeks, and not to the artesian wells. Water runs in subterranean streams, bound up in seams of gravel and tough clay, having no connection with each other or the surface water, and unless two wells struck the same stream, neither would affect the other. He said that after land was tilled for a few years it dried out more rapidly, and to this he attributed the lack of moisture.

Mr. Haskell said he had always taken a great interest in the artesian wells, and he had yet to learn that they had affected the lands in higher localities. He thought the water should be saved. If the waste of water lowers the fountain so that other wells would not flow, it is a damage and should be legislated on. He had seen the water in the surface wells lowered, but it did not affect the soil.

Mr. Cadwell said if the artesian water was confined in its channels the pressure would cause it to throw out springs in the higher land, and force the moisture to the surface. He thought it very wrong that lower wells should be allowed to draw the water from those higher up. He thought the more the soil was worked after it became dry enough to work without caking, the more moisture would be retained. After the dry weather sets in, the working should be done with a cultivator, or something that would loosen the soil without turning it over.

Mr. Erkson said that for those crops which would admit of such treatment, mulching would tend greatly to the retention of the moisture. He thought we had nothing to fear from the lowering of the surface water, whether it has been accomplished by artesian wells or otherwise.

Mr. Casey said that several owners of artesian wells east of the Coyote had told him that when the wind was blowing briskly, and the windmills were pumping the water rapidly from the surface wells, it affected the artesian wells, many of them ceasing to flow entirely.

Mr. Erkson said he had no doubt of the fact, as the wells around town were only from sixty to a hundred feet deep, but he did not think it would affect the artesian wells proper—those of a proper depth.

Mr. Berglen said that water in the ground raised to the surface in the shape of mist and moistened the soil.

Mr. Cadwell confirmed this theory.

Mr. Cottle said he had had land which one season was ordinarily moist on the top, a foot or two deep the soil was as dry as dust, and below that still the ground began to be moist again. He wanted to know if it was possible that the moisture on the top could have come up through that layer of dust without rendering it more or less moist?

Mr Haskell said capillary attraction would not draw moisture to the surface a distance of more than five or six inches.

Mr. Kennedy explained that the subterranean water runs in streams, tho same as the surface water courses, and does not lay around loose, as some seem to think.—*Mercury.*

Farmers' Club of Sacramento.

Club met April 19th, President Manlove in the Chair.

The delegation who attended the Farmers' Union meeting at San Francisco reported by reading all the resolutions passed by the Union.

After the report, the Club discussed the proceedings at length, and, on motion, adopted the report, and unanimously indorsed the action of the Convention, and instructed the Secretary to collect from each member of the Club the amount asked for by the Union, monthly, and hand the same over to the Treasurer, to be forwarded to the Secretary of the Union.

Captain Haynie said that while he approved all the Union had done, he was prepared to go one step further, and propose political, not partisan, action; he therefore offered the following resolution:

Resolved, That we recommend the Executive Committee of the California Farmers' Union to call a convention at an early day to consider the propriety of recommending all the Farmers' Clubs to make nominations for Legislative officers for the next session of the Legislature, in the interest of agricultural and other material industries.

Mr. Lockett seconded the resolution, and moved that the resolution be considered at the next meeting, which was agreed to.

Messrs. Haynie and Lockett were appointed to lead in its discussion.

Underground Irrigation—Clark's Pipe.

Mr. Murphy said he was one of the members to whom was apportioned a part of the irrigation pipe presented the club last fall, and he would now report that he had laid about forty feet of the same in compact clay soil. He did not take particular pains to get it level, and the edges of the pieces met loosely together, and yet the water ran the whole length readily, oozing out uniformly at the joints and irrigating the adjacent soil most successfully. He had not had water in the pipe long enough to determine at what width the water would spread through the soil, but was well satisfied with its success, and as to the great superiority of underground over surface irrigation.

Robert Williamson said that as Mr. Kendall, who also was apportioned a part of the same pipe was not present, he would say that Kendall had assured him that the pipe he had laid worked well, and had proved a perfect success. It enabled him to keep green garden vegetables in a most luxuriant state of growth the year round, and his land was the dry red land of the plains. It was a perfect triumph for underground irrigation; that nothing could induce him to do without it.

Mr. Rutter said he had laid forty feet of Clark's pipe, and had just turned the water on, and would report the result at the next meeting. From what he had already seen of underground irrigation he was prepared to indorse it fully.

Further remarks favorable to the principle were made by Haynie, Murphy, Aiken and others.

The Malva Tree.

The committee on the malva tree submitted through their chairman, J. R. Johnston, the following report:

To the President and the members of the Farmers' Club of Sacramento—Gentlemen: Your committee to inquire and report concerning the malva tree would state that they have taken considerable pains to obtain correct information, and submit the following extract from a letter received from Olive Harper, an intelligent horticulturist of San Francisco:

The malva tree seems originally to have come from Japan; its botanical name is, Lavatera assurgentiflora (Kellogg), and is valuable for ornament, shade and for feed for animals of all kinds. It attains a maximum hight of thirty feet in about eight years; is evergreen, and blooms nearly the whole year round. The trees grow from the seeds which drop from the tree, and requires no cultivation whatever. They grow rapidly, and in two years cattle could be allowed to browse on them, as they do not eat the branches, only the large, mucilaginous leaves. Cattle, sheep, horses, rabbits and goats all seem to prefer the leaves to any other feed. The trunk or body of the tree is the part which contains the fibre, for the branches are nearly always tender and green, not woody.

To obtain the fibre the tree should be felled and allowed to remain exposed to the rain during the wet season, and then it will be fit for use. Of course there is a right way and a wrong way to manage this as well as flax; as, if it be allowed to dry it will, like flax be brittle; but from actual experiment we have ascertained the fineness, strength and value of the fibre. But even if the fiber were valueless, as a means of feeding stock and bees, and covering the barren plains and hills with a refreshing green, it is a valuable plant. Where this grows no diseases such as chills and fever or other malarious sickness prevails.

Its leaves and seeds possess much medical virtue as a demulcent, having the properties of both field mallows and slippery elm. To get a good start, these trees should not be molested by cattle for at least two years; after the leaves will grow as fast as they are eaten off, leaving the flowers to mature and the seeds to fall unmolested, and the fibrous trunk to grow.

Your committee also submit the following extract of a letter received from Fred MacCrellish one of the proprietors of the *Alta California:*

San Francisco, February 28, 1873.

Fifteen years ago when foreign trees were scarce I had the Malva growing in my garden. It grew rapidly; was always green, and sent its seeds far and wide, the new plants growing so rapidly that I had to dig up the new growth for fear they would run out all other bushes. I did not know its use then, but have since found that it is useful as feed for cattle, being evergreen—that bees feed on it and that the fibre is almost as valuable as hemp.—*Record.*

Stanislaus Farmers' Club.

Club met Saturday, April 12th, President Warder in the chair.

Under the head of reports Mr. Douglass stated the delegates to the State Union had not agreed to any definite report, but he supposed each one would have something to say and probably something to suggest. He found at San Francisco that the currency question elicited more interest than any other, and that it was strenously opposed by moneyed monopolists of all grades. He suggested that the farmers investigate the matter, as it was a notorious fact the banks were declaring dividends of 20 per cent. per annum. The Union he stated had agreed to recommend the abolition of the wharf duties. The sack question was also one that engrossed a considerable portion of their attention, but had been considered principally in secret session; and of course he would not disclose what was done there, but all were convinced that the ring had gained control of all the sack factories in this State.

The question of organization had also been considered; and they had partly effected arrangements for telegraphing daily the prices of wheat to Modesto during the summer. He also referred to a plan of organization adopted by some of the counties, that of forming a joint corporation, in which each farmer put in 160 acres of land, on which money could be raised in European markets at low rates of interest. It could then be placed in banks as a special deposit, subject to order, and for which a rate of interest would undoubtedly be allowed, sufficient to cover the amount paid to the European capitalists. That would give to the farmers' organization funds for the transaction of business. They could then go into the markets, purchase sacks, agricultural implements, or ship grain or do whatever else they thought best to protect themselves.

Mr. Warder, another of the delegates, stated that a committee of farmers, himself one of the number, had thought it advisable to make an investigation in person of the sack factories now in this State, but in every instance they had been refused admittance to the working parts of such establishments. In fact, monopolists do not attempt to disguise their aversion to the organization.

Mr. Cressey stated that there had been appointed at San Francisco, a Committee—one from each county—to investigate the system or organization known as Granges. So strongly impressed was that committee with that system as explained to them by Mr. Baxter, the Deputy Grand Master of this State, and others who were members of that institution, that they had no hesitancy in recommending its adoption in this State, as the safest and best system for farmers to organize on. There was not amongst those who had listened to the statements of its admirable success in many of the States, a single objection.

Mr. C. also quite forcibly illustrated the fallacy of farmers attempting to accomplish anything without ready capital at hand to do it with. They had met at San Francisco, and what was the result? Why! they had simply caused sacks and sacking material to advance, even when they were not able to, or ready to purchase. He referred to the courtesy and respect shown by the farmers of the State to Stanislaus, through their representatives attending the Farmers' Union.

For his part, he was glad to see such feeling, and it made him proud of the county. To merit that good opinion should be the aim of all. It seemed to him that the best plan for the farmers to pursue was, to unite all their ready floating capital, and even their credit, if necessary, in the organization of local banks, such as the proposed Farmers' Loan and Savings Bank of Stanislaus. By that means they would have money among themselves, by which some protection could be offered. In fact, that system, next to the organization of Granges, had met with a more unanimous approval than any other at San Francisco.

Mr. Wm. Warder offered the following resolution, and asked that the following-named gentlemen be placed on the committee, which passed: J. D. Spencer, L. B. Walthall and Geo. B. Douglass.

Whereas, We as farmers do not intend to make war against railroads or other common carriers, in view of the fact that the interests of both are identical: Therefore, be it

Resolved, That this club do appoint a committee, to be styled a "Committee of Transportation," to confer with the agents of the C. P. R. R., relative to freights and fares. Said committee to consist of three members.

Mr. Warder introduced the following resolution, and carried it:

Whereas, On April 5th, 1872, there was introduced in the Branch Township Club a resolution to the effect that the farmers' interests were and have been overlooked, and neglected and superseded by a banking monopoly, established at Modesto, particularly the Farmers' Saving's Bank of Stanislaus county; and that the objects of the two Farmers' Clubs, now organized in this county, viz; The reduction of interest and convenience of negotiating loans, have been overlooked and neglected in the organization of said bank: and whereas, believing that the above resolution was introduced, by said Branch Club, and passed under a misapprehension, or misrepresentation of facts: Therefore, be it

Resolved, That it is the judgment of this Club that, the best, speediest and most convenient means of obtaining money for the community at present at reasonable rates of interest is through the agency of the aforesaid bank, at convenient business points, and of reasonable capital stock.

Resolved, That a copy of this resolution be sent to the Secretary of Branch Township Farmers' Club by our Secretary.

Mr. Warder stated as an item of information that he had a very pleasant interview with W. H. Baxter, Deputy Grand Master of the Granges, and that he would be at Ellis that day to institute the organization there. He stated that nine men and four women, who were patrons of husbandry could have such an association instituted by sending for Mr. Baxter. All it would cost was three dollars initiation fee for the men and fifty cents for the women, and the expenses and time of the Deputy Master paid.

The greatest number of charter members were twenty men and ten women by which a lodge could be instituted with; but after the installation, the lodge could admit as many members as it thought best. The Lodge on this coast was instituted by an order from the Grand Lodge of the United States; after fifteen local Granges had been instituted, there would be organized a State General Grange; and until that time the secret work would not be given on this coast.

Mr. Douglas again spoke of the necessity of organization, and the opposition evinced by some towards secret orders, but if such men had been at San Francisco and investigated the workings of the rings they would have been convinced that such a course was necessary; and made several illustrations of the secret working of speculators.

Mr. Henderson stated that he had been somewhat opposed to these Granges, but he liked to go with his friends, because he generally found them right. Still, if he had any doubt, the free exchange of ideas had removed that doubt. He was now for them, especially since he had learned that ladies could become members; he always liked to be with the fair sex, and he thought that the farmers of Stanislaus were in a fair way to become grangers.

On motion, Walthall, Ross and Bentley were appointed a Committee to investigate the Grange system of organization, and report at next meeting, the motion was amended, adding C. J. Cressey and J. D. Spencer to the Committee.

On motion of W. S. McHenry, twenty members of the Club were selected to petition for, and have instituted a local Lodge of Granges, they constituting charter members.—*County News.*

Merced Farmers' Club.

Club met Saturday, April 12th, President Jolly in the chair.

President Jolly, Chairman of special committee, appointed to attend the Farmers' Union, held in San Francisco, made a verbal report and referred the Club to report of proceedings as published in the San Francisco papers.

Mr. Fitzgerald moved that the report be adopted and spread upon the minutes. Carried.

Mr. Jolly then notified members of the Club that a secret meeting of the body would be held immediately after the regular business was concluded, and explained the objects of such secret meeting.

Mr. Marks then came in and announced that Mr. Wigginton, who had at a previous meeting accepted an invitation to address the Club at this meeting, was compelled to defer making the address to a future meeting, he having been unexpectedly called away upon business of importance.

Mr. Jolly made a few remarks upon co-operative banking, advocating the necessity of establishing such institutions in each county.

Club then went into secret session.—*Argus.*

Special Meeting of the Vacaville Grange.—Installation of Charter Members and Officers.

A special meeting of the Grange was called and held at the Masonic and Odd Fellows' Hall in Vacsville, on the 18th inst. at 1 o'clock P. M. for the purpose of having an installation of the charter members and officers, by W. H. Baxter, Esq., General Deputy of the National Grange. Mr. Baxter was promptly in attendance. Twenty gentlemen, charter members, were elected and eighteen (the number present), installed. Ten lady members were elected and seven (all present), installed as charter members.

Officers Elected and Installed.

Following is a complete list of the officers elected and installed:

Gentlemen:—Master, T. Hart Hyatt; Overseer, W. J. Dobbins; Lecturer, R. C. Marshall; Steward, W. C. Harris; Assistant Steward, O. Bingham; Chaplain, Ira Taylor; Treasurer, Wm. Cantelow; Secretary, T. H. Hyatt, Jr.; Gate Keeper, Geo. Kay Miller.

Ladies:—Ceres, Mrs. W. J. Dobbins; Pomona, Mrs. M. R. Miller; Flora, Miss Lulu Hyatt; Lady Assistant Steward, Mrs. O. Bingham.

Vacaville, April 22d, 1873.

Agricultural Notes.

CALIFORNIA.

ALAMEDA.

Journal, April 19 :—Mr. F. Rhoda, a leading cherry culturist of this county, says that the late severe frosts have not injured his trees, and that his crop, from present appearances, will be larger than ever before.

News, April 19 :—Farmer's Luxury.—Yesterday opened promisingly for plenty of rain, but the pluviat dispensation came down very sparingly, and in dribblets few and far between. A Washoe zephyr struck in towards evening, by way of variety.

CALAVERAS.

Chronicle, April 21 :—Rain.—A little rain fell last Thursday—about three drops to the square foot, we should think. Crops are not suffering for moisture in this vicinity yet, but a trifle of rain wouldn't hurt the farmers' feelings any. Let it rain.

And it did rain on the 20th beautifully. Ed. R. P.

COLUSA.

Sun, April 19 :—Dry.—So far as we can gather, it has been exceedingly dry for the past six weeks in all parts of the State. Some of the grain crops in this section look very badly, but most of the sown grain, especially on fallow lands, will yield good crops, if we can have a good rain in the next few. While there is life there is hope.

FRESNO.

Expositor, April 19 :—The sheep-raisers, or many of them are beginning to talk about driving their sheep toward the mountains for summer pasture, and some of them will start up in the course of two or three weeks, or as soon as they finish shearing.

The Alabama Settlement.—Mr. S. A. Holmes informs us that the crops at the Alabama Settlement are looking finely. Most all the lands were summer fallowed, and the grain is now well stooled out and from twelve to eighteen inches in hight, and is so thrifty that it looks dark green. The farmers in that vicinity are anticipating good crops even though the rain-fall for the balance of the season should be meagre. We obtain from him the following approximate of the number of acres of grain sown in that vicinity this season: Major Reading, 1,500 acres; Mr. Sledge, 1,200 acres; Mr. Borden, 750 acres; Messrs. Pickens, 500 acres; Colonel Dennet, and Mr. Healey, between 700 and 800 acres. Other parties have in smaller fields which will swell the the total number of acres to upwards of 8,000. Several of the planters will experiment with cotton on a small scale this season. It is to be hoped that the late high, cold winds did not injure these crops.

HUMBOLDT.

Signal, April 9 :—Getting Interested.—We have heard from a number of farmers in Eel River Valley in relation to the matter of a Beet Sugar mill. Whether it be located in that Valley or nearer a deep water shipping point, does not seem to matter much to them. With the establishment of a Beet Sugar mill in the county they feel certain of finding a ready market for a most lucrative crop. There will be no delay or expense of shipping to San Francisco, but a ready demand for what they grow almost at their doors.

Humboldt possesses advantages for this branch of enterprise which perhaps no other portion of the State does. No soil in the State yields greater returns to the acre than that of Eel River and the Arcata bottom. Wood and stave lumber can be had here for about one third what it costs at either of the present Beet Sugar mills in the State, while transportation between San Francisco and Eureka is but a trifle higher than between San Francisco and the present mills.

We notice by our exchages that two or three more sugar mills are talked of in the lower counties. There is satisfactory evidence before the people that they are most desirable enterprises to encourage in any farming section. Many think, or pretend to think, that $100,000 is an extremely large price for a sugar mill. Yet this is what a mill with all the working equipments, and capable of working off 60 tons of beets a day costs, and these are the basis figures upon which two or three new mills are now being talked of in the lower portion of the State.

SANTA CLARA.

J. J. Owen, editor of San José *Mercury*, in writing of Santa Clara Valley says :

Santa Clara county contains an area of about thirteen hundred square miles. The population of the county, according to the last census, was 26,246—over two-thirds of which number are gathered together in the villages and towns. The county is some fifty-three miles in length, and from twenty to thirty miles in width—including the entire valley, and extending to the summits of the mountains on either side.

About three-fourths of the territory is mountainous and sparsely settled. These mountain lands are valued at from three to forty dollars an acre—the latter figure covering the best-improved farms. They offer excellent stock ranges, and wherever brought under cultivation, are found to be reliable and very productive.

They are especially adapted to the cultivation of the vine. They are watered by numerous springs and streams which, flowing into the valley, sink into the underlaying gravel, furnishing the sources of the flowing wells in the lower portion of the valley.

The long dry summers are really the perfection of this climate. The dry, cool atmosphere is a sure protection against malaria, hence fevers are almost unknown; and the nights are positively grand. Invariably cool enough to require thick covering, sleep becomes a luxury rarely enjoyed by the summer resident of other lands. It is this peculiarity of climate that gives such perfection to our cereals, such luster and lusciousness to our summer fruits

Then come the hazy autumn days. The trade winds have ceased. The atmosphere grows thick with gathering moisture. The changing currents whirl the dust and leaves into weird columns. The south wind settles down to its work, and the drama of the seasons is repeated.

Transplanting Tobacco.—Gilroy *Advocate*, April 19; Workmen have been engaged for a week past in transferring tobacco plants from the beds on Rosanna street in this city, to the Hanna field, a mile or two distant. About forty-five acres are already set out, and when the work of transplantiugia completed there will be some 175 acres under cultivation. The plants are all looking finely, and we confidently believe that eventually Gilroy tobacco will be as extensively known as that of Virginia.

MERCED.

Tribune, April 19 :—Fine Grain.—Mr. Van Campen brought into this office on Wednesday last, a sample of three hundred acres of barley from the Montgomery ranch, about ten miles from this place. This sample is four feet high, has a good healthy color; although the heads are not as well filled out as they would be if we had a good shower of rain, still, as it is, the yield will be a fair one. The parties who farm the above named ranch will soon begin cutting hay, and that crop will be heavy.

MONTEREY.

Democrat, April 12: The Shearing Season.—Wagons laden with wool from the great sheep ranges south of this, are commencing to arrive. We are informed that fleeces this year are fully up to the average, in respect to quality and quantity, though they are not likely to realize the prices paid last season. At New York, 8th inst., California wool, of last fall's shearing, was quoted at 23@28c. The spring clip doubtless will command a better price.

The Weather—Crops.—Interviewing farmers as they come to town, we summarise as follows: Rain is much needed for the late crops, which will, nevertheless, yet come out should we have rain within a week or ten days. About the early seeded grain there are no complaints. It is agreed that the late frosts were damaging, though to what degree we can't make out. However, fruits, which they would have affected, are not cultivated in this valley to any important degree.

NAPA.

Register, April 18: California Raisins.—Some of the plumpest, nicest raisins we have ever seen, we came across this morning at Zubrick & Keifer's, and were agreeably surprised to learn that they were of home manufacture—put up by Mr. Mann, of Brown's Valley, two miles from town. It is gratifying to know that these things can be produced just as well here as abroad, and those who have their own best interests at heart will purchase a home production all the time rather than have the money sent out of the country for a foreign article.

Crop Prospect.—Mr. Emerson, of Oak Knoll, reports the grain in his vicinity and towards town looking well—never better in twenty years. It is not suffering badly for want of rain yet, and he has some fears that rain would damage.

SANTA BARBARA.

Press, April 12 :—Weather Notes.—During the windy and disagreeable weather of last week, other localities have suffered while we were only annoyed. In Los Angeles the frost was quite severe, doing a very considerable damage; at Gilroy, there was a heavy frost and the tops of the hills east of the town were covered with snow; in Napa county the grape crop has suffered severely from frost, and is probably injured as much as last year, or at least half destroyed—a severe loss to the county. Many other sections have suffered in like manner.

Thus, while the wind and storm all along the coast was far more severe than here, the cold weather has resulted in much damage to the north and south of us, while we have escaped, as the frost here has done no damage worth noticing. Still, probably, it will be impossible to satisfy the demands of many people who are disposed to grumble if any day in the month is less balmy than the best. It is not enough to live in a country which escapes damage from frosts and storms, and is almost invariably mild and delightful. But what would such people do if they would not blame the weather?

SAN JOAQUIN.

Condition of the Crops.—*Independent*, April 15: Considerable quantities of wheat have been sown as late as two weeks ago, and it would seem unreasonable to expect that this will reach maturity. It certainly will not, unless a change of weather takes place very soon. The crops on summer-fallowed land are the most vigorous and thrifty; while volunteer fields present a very fine appearance, and the area sown during November and December promises to yield well without any more rain. The breadth of wheat sown in San Joaquin valley is more extended than the area of last year, and it will probably not be unsafe to calculate upon a fair, average yield from more than the half of the area seeded. Should the drying winds prevail another week, much of the volunteer will suffer irreparable damage, and the greatest portion of the latest-sowing may be looked upon as a total loss.

TULARE.

Times, April 19: Crops and Grass.—Rain would probably injure grass considerably, but there are places where it would help the grain, even at this late day. Of course in the lowlands, along some of the water courses, where the soil is very moist, good crops will be realized whether any more rain falls or not; but taking the county through we fear this year's crop may be called a failure. This will be disastrous to many of the new-comers who have come amongst us for the purpose of farming, and many of whom have staked their all upon the result of the first year's crop. But drouths are quite frequent in this part of the State, and their coming should not create surprise. By attending to the means of irrigation within our reach, all their evil effects may be counteracted. In time this will be done, and this great valley will be rendered almost completely independent of the clouds.

OREGON.

Oregonian, April 19 : Farmers in the vicinity of Cove are busy putting in new crops.

Several head of cattle have recently died in Douglas county from eating poison weeds of some sort.

The Pioneer Oil Mills at Salem have received six sacks of fine flaxseed from Indiana which will be distributed among the farmers.

A Farmers' club has been organized at Hubbard's, Marion county. J. W. Gwinn is President, J. R. Sanborn, Secretary, and H. C. Dayton, Treasurer.

People who live at the foot hills of the Cascade range complain that since the game law went into force the deer and elk tramp up their gardens and tear their clothes from the line in the back yards. They can't bother at this thing much longer.

The Farmers' Club of District No. 24, Linn county, organized last Monday evening, by electing the following officers: Matthew Brand, President; John D. Burris, Vice President; V. H. Caldwell, Secretary; W. J. Smith, Assistant Secretary,

The *Democrat's* Ochoco correspondent, writing from Prineville, under date of March 20th, says the weather in that valley is pleasant, though windy. Farmers are about done putting in their crops. Grass is good and cattle are getting fat. A number of storehouses are being built at Prineville. The Odd Fellows are having a hall erected. Crooked river is very high.

A writer from Sandy, Clackamas Co., sends the *Enterprise* the following: The citizens of this precinct and vicinity feeling desirous to have this section of country settled more rapidly, have organized a society through which we expect to be able to extend knowledge to those desiring "cheap homes." That there is a vast section of country here that is yet unclaimed, awaiting the strong arm of industry to make it yield and bring forth its golden harvest. This society does not intend to publish anything but facts, and a truthful description of this part of the county, and the inducements and advantages which it possesses. Those who desire further information in regard to this part of the country, can obtain it by calling on, or writing to Mr. G. W. Sharrock, the Corresponding Secretary, in the German languages, and they will be answered promptly,

Evergreens and Roses.

A "lady" correspondent "east of the Cascades," in Oregon, complains to us that eastern papers never speak of the amount of shade that evergreen trees and shrubs produce, or the hight they attain, or whether they ever reach a size adapting them to purposes of shade, and she makes several inquiries, to which we reply; that almost all of our evergreen trees of the conifer family, including the pines, spruces, hemlocks, firs etc., are almost always grown for ornament rather than for shade.

As to the hight they will attain in a given time, this depends upon so many contingencies that it is impossible to say definitely. If given room, they branch from near the surface of the ground, and spreading their limbs widely do not make the upward growth they would if they were grown in close, compact forest form; and quality of soil has also much to do with the rapid growth of all trees.

Her inquiry in regard to the varieties of the rose, are to some extent answered in our article on the rose, in this issue.

Heavy Fleece and Prolific Sheep.—C. D. Thompson one of the traveling agents of the Rural, writing from Princeton, Colusa county, says that one of John Boggs' Silesian Bucks which was sheared on the 17th of Sept. last, on being again sheared on the 20th of March, yielded 17 pounds of wool. Has one yearling buck that sheared 12 pounds and has 400 full blood ewes, the average weight of wool from the whole number being 12 pounds per head He has 4 030 ewes that aggregate 4,080 lambs; whilst Mr. Hilliard of the same neighborhood has 425 lambs from 375 ewes. It is believed by stock growers there, that no better sheep ranges can be found in the State, than those of Colusa county.

Nebraska State Fair Premiums.

The Nebraska State Board of Agriculture offer sixteen farms of 40 acres each, first-class Nebraska lands, valued at from $1.25 to $16 per acre, as premiums to be given for newspaper articles written and published as editorials or communications in any newspaper in the world, between the first day of April and the first day of September, 1873. The subject to be:

Nebraska—Her Natural Advantages and Resources.

"The article must not be less in length than two columns ordinary newspaper, and shall set forth as follows: Boundaries of the State; history, from organization of Territory to organization as State, and from that date to date of writing; its water courses, water power, manufacturing advantages, navigable waters, railroads, present and prospective; character and variety of soil and climate; rain fall; adaptation of soil and climate to the various crops; coal and salt deposits; timber and fruit growing; stock raising; wealth and population approximate; ratio of increase in both since admitted as a State, in comparison with the last year of Territory existence. In short, all information desirable and essential to those looking for new homes in the West."

Why Not California?

In the above is presented a tangible method of bringing the resources of a country before the world. We would like to see some of our large land holders in the San Joaquin Valley and in Southern California, or the possessors of vast acres of tule lands profit by the example; offering small farms of 40 or 50 acres for like services from the Press of the world. Then would the world learn something of the advantages and resources of California.

Louisiana State Fair Lottery.

In contrast with the noble action of the State Board of Agriculture of Nebraska, is that of the State Fair Association of Louisiana. "A Grand Lottery," as it is termed, is gotten up to raise money for the relief of the Fair Ground Association; which we look upon as a swindle upon the public to the tune of thousands of dollars over the real money value of the prizes offered. Among the prizes we notice, one "capital prize of $5,000 in gold," which looks very much like a bait thrown out to tempt the unobserving; for we find the next in order among the grand prizes(?) to be ten, one thousand dollar bonds, secured by mortgage on the property of the Fair Grounds; fourteen prizes of $500 bonds each, the same as above; Twenty-five prizes of ten shares each of the capital stock of the Fair Grounds Association and 30 prizes of 4 shares, each, of the same stock, with a bewilderment of lesser prizes.

Now is there any one so simple as to believe that, that "$5,000 in gold prize, will be drawn by anyone outside of those in interest? But as Gen. G. T. Beauregard has accepted the invitation to aid in superintending the drawing of the "Grand Lottery"(?) we can probably rely upon everything being conducted fairly. But that the honorable title of Mechanic, associated as it is with the Agricultural Fair Association in this instance, should be dragged, in as aider or abettor of a lottery scheme to help somebody, comes a little too near the low and worse than gambling expedient, recently resorted to by the managers of an honored institution in this city, to fleece the people of city and country of their cash, to enable them to lend sympathetic and substantial aid to certain broad-billed bipeds afflicted with lameness.

Who wants a ticket, that the money it costs may help pay the wine bill of the Lottery Committee, of the Louisiana Mechanics' and Agricultural Fair Association?

General Naglee worked up 1,000,000 pounds of grapes last season in the manufacture of wine and brandy. For several years his outgoes in this business have exceeded $20,000 a year, and not a gill of his brandy has yet been put upon the market. But it is ripening finely.

Texas contains now forty agricultural societies, nearly all of which were organized during the last two years.

National Columbarian Society.—Agreeable to previous public advertisement, a meeting was held on Wednesday, the 9th inst., at 14 Murray str et, for the purpose of forming a National Pigeon Society, at which Mr. Wm. Simpson, Jr., of West Farms, N. Y., was chosen President, Mr. A. B. Estes, Cor. Secretary, with Vice-Presidents and other officers in many of the States of the Union. Any information pertaining to the objects and interests of the society may be obtained by addressing the Secretary, P. O. Box 316, N. Y. City.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

Top.—N. D. Clark, S. F., Cal. It is seldom that we are able to chronicle the discovery of a new principle in mechanics and its practical application in a toy for the amusement of the rising generation. Mr. Clark has discovered that if we take a tube, one end of which is a flat disk through which the hole in the tube also passes, and make evolute grooves from the center to its outer rim on the under side, and place against this grooved underside an oppositely grooved flat surface, say the upper portion of a common spinning top flattened, and then blow strongly through the tube, the top will be caused to spin or revolve with great rapidity as long as the air passes forcibly through the tube. As soon as the breath is exhausted the top can be allowed to drop upon an even surface when it will spin like any ordinary top. An important feature of this discovery is that as long as the air is passing through the tube under pressure the top will not leave the disk, no difference how it is held, but will remain as it were, suspended in the air and in swift motion very close to the disk. Water, air, or steam can be used to drive the top. Mr. Clark has also applied this principle to a motive power and various other uses.

Water Wheel.—N. J. Coleman, Railroad Flat, Cal. This invention relates to that class of water wheels which is peculiar to California, the "hurdy gurdy" wheel, and it consists in a novel arrangement of the buckets, whereby the water is made to exert its force upon the full length of the bucket, and by which the power is not lost by the centrifugal force caused by the high velocity of the wheel which in ordinary water-wheels reduces the power of the water to the result of its first impact upon the buckets.

Improvement in Chimneys.—J. Browell, S. F., Cal. This invention relates to that class of chimneys or flues for houses, in which two pipes, an inner and an outer one, are used. Mr. Browell's improvements consist, first in the employment of earthenware pipes or tubes for the inner one instead of sheet iron, as heretofore constructed, and secondly in a novel arrangement of stay rods and supports for holding the chimney in its place, no matter how many joints or sections it is composed of. The patent covers a very nice arrangement for a chimney.

Channeling and Edging Tool.—Louis Bauer, S. F., Cal. Mr. Bauer patents a combined channeling and edging tool for leather workers, its object being to provide a tool which will at one operation trim the edge of a piece of leather and cut an angular channel in the leather near the edge, in which the stitches of a seam are bedded and protected.

Pump.—Ira D. Cross, Petaluma, Cal. In this pump one pipe full of water is made to balance another pipe full, so that no matter how high the water is to be raised, the two balancing pipes are carried up to the point where the water is to be discharged. The two pipes are so arranged that by giving them an alternate motion up and down, they take in water at the bottom and discharge it at the top. Thus it will be seen that as the pipes balance each other the operator has to lift only the amount of water that is discharged at each stroke. The patent covers a peculiar construction of the cylinder, piston, piston-rod and inlet-pipe at the bottom of the well.

Converting Butter into Cylindrical Rolls. Chas. H. Fancher, S. F., Cal. When our California butter was first introduced into the Eastern market, it was likened by the Eastern people to the bright and shining rolls of $20 gold pieces so common to our State. This was owing more, perhaps, to the neat and modest manner in which it was put up than to any great superiority in the quality of the butter. Mr. Fancher is a practical butter-man: he saw that the California plan of putting up butter in rolls was to succeed the present plan, practiced in other parts of the United States, of making flat, stamped rolls, or balls. Mr. Fancher's invention consists of a number of mechanical devices by which he is enabled to convert a keg or barrel of packed butter into beautiful rolls in a very short time, so that it cannot be distinguished (by its looks, at least) from freshly-put up butter. One great advantage of his process is that the grain of the butter is not disturbed in converting it into rolls, thus preserving its quality to the last.

Cylinder Wagon.—George Coffee and William M. Bernard, Dixon, Cal. This invention relates to a one-wheeled or unicycle wagon. The wagon is not intended for a pleasure vehicle, nor would it answer in a very satisfactory manner as a trotting sulky, but as a wagon suited for doing heavy farm work or as a road wagon it would seem to be quite convenient. It consists of a single broad wheel or drum having an axle (or shaft) passing through its center. The pole or tongue is attached to the opposite ends of this axle or shaft so that the pull upon it causes the drum to revolve. The bed is placed upon ways or slides inside of the drum so that as the drum revolves the bed will keep at the lowest part of the circular ways by sliding upon them. This wagon will also answer as a land roller and for various other farm purposes.

Printers' Lead Rack.—O. A. Dearing, S. F., Cal. This invention will be appreciated by printers—job-printers, especially. It consists of a rack or case having graduated pigeon holes, in which the different lengths of printers' leads are kept separated. The rack is provided with a scale, which serves to aid the compositor in determining the length of each lead, in order that he may readily place it in its proper pigeon-hole. Mr. Dearing is the inventor of quite a number of devices for facilitating the work of compositors. He will have his reward.

Narrow-Gauge Railroads.

The people of the Pacific Coast are fully alive to the importance of railroad communication, and strenuous efforts are being made in various localities to improve property and facilities of transportation by building roads. Narrow gauge lines are in great favor, as they are built at a comparatively small expense, and are peculiarly adapted for the generally mountainous character of the Pacific Slope. As will be seen by the following recent railroad news, considerable attention is being turned to the subject, and several lines are in process of construction.

Measures are being taken to get the proposed narrow-gauge railroad from Oroville to Reno started. It is said that about $250,000 has already been subscribed.

It is understood that the San Joaquin and Tulare Narrow Gauge Railroad Co. intend pushing their road through at once. The Engineer Corps were at work in Stockton on the 12th inst., prospecting for a starting point.

The ceremony of breaking ground on the Salt Lake, Sevier Valley and Pioche Railroad took place at Salt Lake on the 14th inst. It is expected that the line will be opened to Salt Lake by July 4th, and to Stockton by the latter part of the Summer.

The Wahsatch and Jordan Valley narrow gauge railroad is completed to Granite, at the mouth of Little Cottonwood Cañon, Utah. The total distance is twenty-one miles. This road will afford great facilities for transportation of ores from the rich and extensive mineral district in the Cañon. It is expected that the road will be completed to the Emma and Flagstaff mines by the 1st of June.

The work of grading for a branch narrow-gauge of the Utah Northern Railroad from Bingham City to Corinne, is going on rapidly.

In connection with the Elko and Hamilton (White Pine) narrow-gauge railroad, the Reese River *Reveille* says that Mr. A. A. Cohen a prominent railroad man of California, has had deposited with him by Messrs. Gilmer and Saulsbury the sum of $150,000 in coin as a deposit on three ship-loads of railroad iron and rolling stock—sufficient to complete 50 miles of road.

The Saucelito *Herald* thinks that a through train from Saucelito to San Rafael on the narrow-gauge railroad will be running before four months are over. Some 800 men are now at work grading between White's Hill and Strawberry Point. At White's Hill a tunnel 1,200 feet long will be run, and a shorter one, two miles south of the large one will shortly be commenced.

The people of Santa Cruz county have recently held a meeting to take into consideration the propriety of building a narrow-gauge railroad in that locality, and the following resolution, published in the *Sentinel*, was adopted:

Resolved, That the Executive Railroad Committee be instructed to immediately proceed with the organization of a railroad company, having for its object the construction of a narrow-gauge railroad from Watsonville, thence through the town of Santa Cruz and along or near the coast to the northern line of the county; and that canvassers be appointed to obtain subscriptions, so as to enable us to accept the county aid of $6,000 per mile, on the terms agreed upon with our Board of Supervisors.

Utilizing Water Power on this Coast.

We notice that the surveying party who have been making a survey of Russian River to ascertain whether there was water and fall enough, have finished their work. The route surveyed was impracticable and they will shortly look for another. They ascertained that there was 73 feet fall from Soda Rock to a point in the river just east of Healdsburg. It is to be hoped that a practicable route for conducting the water will be found as it will greatly assist manufacturing enterprises. The Healdsburg people are in earnest, and wish to establish factories at their town which will have the great advantage of water power. Some attention is being turned to the Truckee River, for the same purpose. That river never freezes and it falls about 40 feet per mile. There is said to be no danger of overflow, and every four hundred yards from Bigler to Truckee, facilities for natural water power exist, and the same is the case from Truckee down to Reno, about 35 miles.

With the great scarcity or inferior quality of coal in the State, we should utilize all the water power attainable. The great difficulty as been that these facilities for water power, are at such a distance in the interior or away from railroads, that the advantage of the cheap power, is overcome by the cost of freight on the materials and products; therefore, manufacturers found it more to their advantage to use steam here at San Francisco, than water power in the interior, notwithstanding the comparatively high cost of fuel. Moreover, many streams which afford water power in the winter and spring, are too low towards the middle, and end of our summers, to be available for that purpose. With an increase in railroad construction, we had hopes that this state of things would cease, and that the banks of many different streams would be the location of various manufacturing enterprises, all run by water power. This is not yet the case for reasons before mentioned. In some localities it is found almost as cheap to transport freight by teams as it is to use the facilities afforded by the railroads, since the railroad charges are so high. Time and competition may reduce these tariffs, in which case there is no doubt but that many mills and factories of different kinds will be established where water can be used for the power required.

At Macon, hundreds of negroes are in camp arranging to go West. Thousands of negroes have gone into Florida. Several Georgia papers charge this loss of laborers to emigration agents enticing them away, and call for the prosecution of emigration agents caught within the State.

Texas stands at the head of the list as a cotton-growing State, averaging five pounds more per acre than Louisiana; as a potato-raising State, her average yield is 124 bushels per acre.

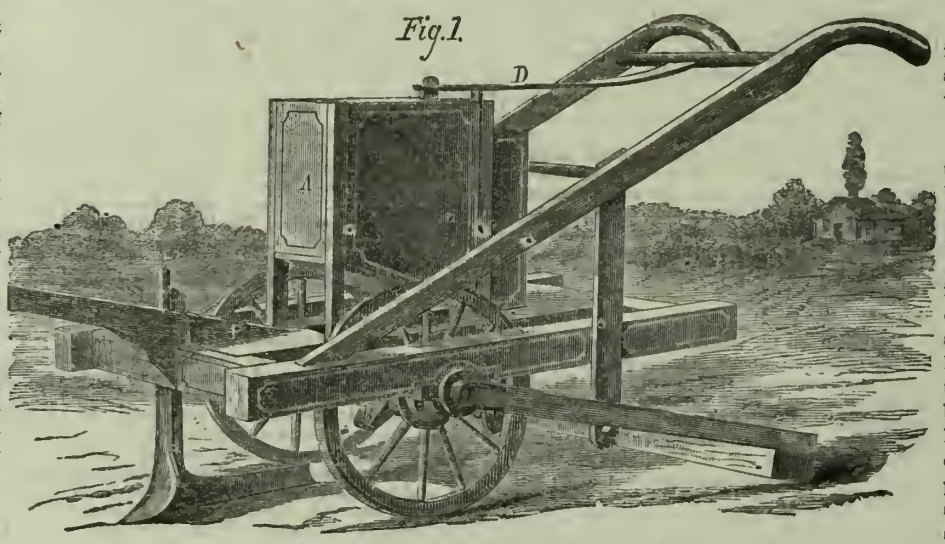
Corn and Pea Planter.

In the accompanying illustration we present what the inventor is pleased to call an improved, practical corn and pea planter, in which the amount of seed required for a hill is elevated within the seed hopper and discharged through a hole in the upper part of the hopper into a drop-tube; the seed is thus deposited at proper intervals and without injury. The illustration affords a perspective general view of the device. *A*, is the seed hopper mounted on a frame supported upon wheels. The axle revolves with the wheels and upon it are cams, *B*, *B*, which impinge upon the lower end of a slide (not shown in the illustration). The latter is thereby caused to reciprocate, being first raised by the cams and then returned to its original position by the reaction of the spring, *D*, attached to its upper extremity. The slide moving close to the back of the hopper carries a cup which contains the requisite amount of seed for a hill; in the back of the hopper is an opening. When the slide is raised by the cams, the cup is brought opposite this aperture through which its contents pass into the discharge tube. The orifice is kept closed while the slide is down by means of a spring cover which is raised clear of the hole by the ascending cup.

When it is desired to transport the planter from one locality to another, the slide is held elevated clear of the cams by means of the bolt or catch on top of the hopper. The furrow for receiving the seed is opened and closed by suitable devices attached to the frame of the apparatus. This planter has no complicated machinery, can be operated by an ordinary laborer, and easily drawn by one horse.

Patented October 29, 1872. For further information relative to sale of rights, etc., address the inventor, John H. Dancy, Dancyville, Haywood Co., Penn.

Fig. 1.



IMPROVED CORN AND PEA PLANTER.

Value of Human Labor.—Some idea of the pecuniary value of human labor may be had by noticing the enhancement acquired by iron as it passes through the hands of its skillful manipulators. Crude pig metal at (say) 2c per lb. becomes worth $500 per lb. in the form of the finest hair springs. The cheapest metal thus becomes far more valuable than gold, through the application of human skill. The one value is 25,000 times that of the other. This is a startling leap, but we can take in the truth better by following the metal through its different stages of refinement—refined pig, bar iron, terne plate, shear steel, penknife metal, razor steel and surgical instrument steel, etc—and so accustom ourselves to the steady gain.

And then the tenuity of the thread on which the enormous value of the finest product depends! Suppose that, while this pound of metal more precious than gold was in the melted state, a careless workmen should drop a match or a pinch of sulphur upon it. The mere addition of so minute a quantity of an injurious element would destroy at once the worth of the whole.

Farmers' Fire Insurance.

The time has come for a definite and lasting distinction between the two lines of insurance—city insurance and country insurance. It is suicidal for people upon farms to give their money to companies that are likely to suffer the loss of millions by such lurid flames as have wiped out three hundred millions of property in the districts of Chicago and Boston. There is no adequate compensation for the money thus expended.

The farmer pays for a tenfold risk when he takes one of these policies. His own property is in comparatively little danger of destruction by fire. His buildings are isolated. It is enough for him to pay for security against destruction of buildings similarly exposed, but add to this the risks of the finest structures, built of granite and iron, in our large cities, as proven by the experience of the past thirteen months, with which his own policy is coupled, and it is self-evident that his policy money is in great danger of proving an absolute loss, or it is demonstrated with painful and actual certainty so to be.

The country cannot carry the risks of the city. There is no use in mincing this matter. Farmers must look to their own protection. They do not have protection by insuring in companies, no matter how far into the millions their capital may extend, which take city, town or village risks.—*Ex.*

Useful Information.

House Furnishing as an Art.

We have plenty of elegant houses in all our large cities and their surroundings, but few homes; plenty of furnitnre, but few comforts; plenty of food, but poor service; plenty of dress, but small comfort in wearing it. Why is all this? With all the means of elegant, and comfortable, and healthy living, why this universal unrest? We cannot answer our own questions in detail, but will add a few words on the uses of furniture in promoting the health and happiness of a family.

First, let all furniture be selected, primarily for use, secondarily for decoration. To furnish your front hall so elegantly as to feel obliged to take your company in at the basement door, would be no greater folly, than to furnish your parlor so expensively that you stand in mortal fear the moment you open its doors for use, or throw open its windows for light and air. The country "Aunt," whose "best room" was too nice for "ordiuary company" made so many enemies by her invidious distinctions, that her best room, small as it was, was ample to hold all the friends she had left, by the end of the first years experiment. A good rule in furniture, as in dress, is, never to buy an article which your means will not allow you to use on all proper occasions, and replace, when, by reason of use, its utility or beauty has been destroyed. Second. Harmonize the different articles in each room, or suit of rooms, and balance the whole household around one central thought, so that you can exhibit your house as a whole, without shaming the meagerness of one department, by the richness and display in another. Let comfort guide you in every selection, your own, rather than your neighbors, your children's rather than your own, if either must yield, and you will have a home, where good taste will never be offended, and where earthly happiness may reign undisturbed.—*Cabinet Maker.*

Names of Various Sorts of Tea.

The designations by which the various sorts of tea are known in the market may be worth notice, as coming under the more immediate observation of dwellers at home. Congo is a corruptiou of Kangfu, signifying labor, and the Morning Congo advertised by tea dealers is simply a sort of the same tea grown at Wuning, a district and city the name of which, being interpreted, means "military rest." Souchong signifies "little sprouts;" Pekoe, "white down;" Bohea is derived from the Wnkee Hills ou which it is produced; Oolung means "black dragon;" Hungmoey, "red plum;" Campoi, "selected firing;" Hyson, "fair spring;" Twankay, taken from Tunkee, or "Beacon Brook;" what is called "Young Hyson" is in Chinese termed Yutseen, or "Before the rains;" Gunpowder the Chinese call Yuen Choo, or "Round Pearls." There are a number of other names given to tea, but these will be recognized as those most familiar to the Enropean ear. What are termed "chop names," are the fancy designations given by Chinese dealers to their teas, after having been made up into parcels of many hundred chests each. The tea is grown in the first instance by small farmers, who carry the produce of their respective gardens to the nearest depot, where it is collected by brokers. and by them made up into chests for delivery to the dealers, who convey it for sale to the foreigu mart. These dealers are very particular in the selection of high-souding and felicitous titles for their several parcels or chops, and very ofteu a particular chop acquires such a fame as to be eagerly sought after for each successive season.

A Singular Cause of Fire.

The Cleveland (O.) *Ledger* publishes the following: A hard wood plug had been put into a hole in a gas pipe that ran along the ceiling in our job rooms, several feet from any burner, and in a position where no one could ever suppose it would catch fire. About six inches below it, passed a belt running from one pulley to another, and in operatiou during the day. About four days after the plng had been driven into the pipe, it was noticed to be on fire, and a bright jet of light, as if from a burner, burst forth from the side of the plug which was already charred and b ing rapidly burned up. How the plug caught fire, how a steady flame of light could suddenly burst out from the side of it, was of course a subject of anxious inquiry. No one had lighted it and no fire had been used near it. The only conclusion possible was that it was caused by electricity from the belt, and a full investigation confirmed this conclu-ion. Had it happened in the night time, it might have enkiudled an extensive conflagration, and its origin would never have beeu known. Many destructive fires may have started in this manner, their causes remaining forever unknown. It is an incident worth bearing in mind, and proves that too much care can not be taken in guarding against fire."

Ladies as Insurance Agents—A project is on foot among numerous New York ladies for forming an insurance company, having only women for officers, agents and policy holders.

Scrap Iaon.—Manufacturers should look well to their scrap iron; do not waste a piece, no matter how small; gather all together—assort, have different receptacles for steel wrought, cast, and malleable iron. The wrought iron from the carriage shop is the most valuable of scrap iron, but to hring the highest price there must be no malleable or cast iron mixed with it; every pound of scrap has a market value, and it should be placed in barrels or boxes and sent to market. If there be any considerable quantity, it will pay to send it to the mills and have it worked up into bars. It is the small manufacturers who do not take care of their scrap, but allow year after year to pass without paying any attention to it, and scraps of iron can be found all over their factories, while boxes and out-of-the-way corners are filled with it, and hundreds of dollars worth of what would make the best of bar iron is allowed to go to waste.—*Scientific American.*

Silk Manufacture. — Ten years ago, silk manufacturing, in the Atlantic States, was in its infancy, and partly an experiment; now it has attained vast proportions, employing a capital of not less than thirty millions of dollars, and giving employment to over sixteen thousand operatives. The value of its products is about forty millions annually. Californians should bear this fact in mind, and reflect that we may here produce the raw materials, for all this immense business, besides manufacturing many millions in value of goods which we now pay for in Europe with the products of our mines of gold and silver, and our broad acres of wheat.

Good Health.

Airing Bed-Roms.

The most desolate-looking, sick-smelling, and every way repulsive room in most houses in cold weather, is the cold, unventilated bedroom. The prevalent notion is, that if it is cold, it does not not need ventilation; and the next thing is to calk up the windows, so that they do not get opened by any chance. That is all wrong.

Other things being equal, cold air is more invigorating than warm air because more condensed, and therefore cold air in the bed-room is to be preferred during the night. It is also true that cold air may be impure; and rooms need ventilating even in winter. If a room is warm, the air, being colder than in warmer weather, rushes in more eagerly, and we feel it more keenly, and that misleads us to think that we need not take pains to ventilate bedrooms in cold weather. All this being true, a fire in a room helps ventilation, especially an open fire, and it is well to have fire enough to take the chill off the air and the bedding every evening. It may even be kept going all night provided you have some window or ventilator open. If you have not been accustomed to sleep with the window open, begin with a very small opening, and then gradually increase it, but do not let the wind blow directly npon you. If you feel it and cannot avoid it, turn your face to it. In the morning, just as you are vacating the room, throw it open, and all the more if there has been no fire in it.

As for the bedding, hang that out of the window. It will air three times as fast as it can in the room. Try it, and then smell of it, if you would know the difference. Let your bed and room air thus an hour or two, according to wind and weather—and in the summer much longer. Do not fear that this will make you appear untidy. The best housekeeper is the one who knows how best to make the house and its work serve the health and the comfort, as well as the taste of its inmates, not the one who makes up her bed as soon as she is out of it, covering up all the foul exhalations of the night previous, and then sleeping in them the next night. Some of the chamber work cannot well be done too early, but the beds may he left until ten o'clock. Then protect yourself with head sontag and gloves, and make them up and tidy the rooms, but do not allow yonrself to become chilled. The latter result will not happen so readily as you might expect. With a room well ventilated and sunned, you can work comfortably with the thermometer eight or ten degress lower thau in a room where these two items are lacking. This is the direct advantage of fresh air and sunshine. The indirect, but still greater economy, is found in the fine spirits and the elastic vigor that increase your ability to wash, and in diminishing the doctor's hills.—*Science of Health*

Preventing Small-Pox.—The *Atlantic Medical and Surgical Journal* publishes the following: Dr. G. D. Norris, at a recent meeting of the Alabama State Medical Association stated that during the prevalence of small-pox in Huntsville certain families at the instance of some one unknown, had resorted to the free use of the *tea of the Cimicifuga Racemosa*, or black snake root of the United States Pharmacopia *(black cohosh) as a preventive of small-pox.* In the families using the cimcifuga there occurred no case of small-pox; though some were exposed to the disease. In the same families, Dr. Norris vaccinated the members but without effect so long as they continued the use of the cohosh; after ceasing to use the tea as a prophylactic, he again vaccinated them, when the specific effects of the vaccine virus were produced. He submitted the results in these cases as new, and not without interest to the profession.

Broadcloth and Exercise.

Professor Hamilton, in an able address on hygiene to the graduates of the Buffalo Medical College, denounces broadcloth as an enemy to exercise, and thereforo to health. He says:

"American gentlemen have adopted, as a national costume, broadcloth—a thin, tight fitting black suit of broadcloth. To foreigners we seem alway to be iu mourning: we travel in black. The priest, the lawyer, the doctor, the literary man, the mechanic, and eveu the day-laborer, choose always the same black broadcloth—a style that never ought to have been adopted out of the drawing-room or the pulpit, because it is a feeble and expensive fabric, because it is at the north no protection against the cold, nor is it any more suitable at the south. It is too thin to be warm in winter, and too black to be cold in summer; but especially do we object to it because the wearer is always soiling it by exposure. Young gentlemen will not play ball, pitch quoits, or wrestle, or tumble or any other similar thing, lest, their broadcloth should be offended. They will not go into the storm because their broadcloth will lose its luster if rain falls upon it; they will not run, because they have no confidence in the strength of their broadcloth; they dare not mount a horse or leap a fence, because broadcloth as everybody knows, is so faithless. So these young men and these older men, these merchants, mechanics and all, learn to walk, talk and think soberly and carefully; they seldom venture to laugh to the full extent of their sides."

Perfume and Health.—Au Italian Professor has made some very agreeable medical researches, resulting in the discovery that vegetable perfumes exercise a positively healthful influence on the atmosphere, converting its oxygen into ozone, and thus increasing its oxydizing influence. The essences found to develop the largest quantity of ozone are those of cherry, laurel, cloves, lavender, mint, juniper, lemons, fennel, bergamot; those that give it in smaller quantity are anise, nutmeg and thyme. The flowers of the narcissus, hyacinth, mignonette, heliotrope and lily of the valley develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfume develop it only in small quantities. Reasoning from these facts the professor recommends the cultivation of flowers in marshy districts, and in places infested with animal emanations, on account of the powerful oxygen influence of ozone. The inhabitants of such regions should snrround their dwellings with beds of the most odoriferous flowers.

Sinoular Disease.—The papers have discovered a curious disease out in Cache county, Utah. They say that the patient is attacked with a pain in the left knee, the leg below the knee, down to the toes, becomes much swollen, hardened and red. The pain then abates. Then the swelling recommences above the knee and extends up to the body, when inflammation seizes the bowels and the patient dies. A medical man out there, who says he has had forty years practice, says he has never known anything like it before.

Entertaining Company. — "Do you ever thoroughly enjoy receiving company?" said a lady to us not long ago. For my part, I am so occupied with the fear that my guests will not be sufficiently entertained that I have no time to enjoy them." Most American housekeepers will confess something of this feeling. Even in our best appointed households there is not that absence of care in the deportment of the lady of the house which is seen in French or English drawing-rooms. Her thoughts cannot help wandering to the kitchen, even iu the midst of the most animated conversation. She knows full well that after all those endeavors which have made her somewhat too weary to be quite at her best in looks or manner, there may be a failure in serving the repast. It is curious to see what a different woman she is after supper, if all has gone well. For the time she is safe, and exuberant with a sense of relief.

Force of Gunpowder.—A most remarkable instance of the force of gunpowder was observed in the blowing-up of a Confederate ironclad, at the time of the evacuation of Charleston by the Southern troops, in 1865. It was considered very remarkable that search, in the immediate vicinity, some months afterwards, failed to discover anything more than small pieces of the wreck. It was only a few months since, in fact, that any considerable portion was discovered. At the time referred to, a ripple was observed at an unusually-low stage of water and in a most unexpected locality. Search for the cause revealed the bow and one entire broad-side of the iron-clad, forming a mass of iron weighing about 100 tons; which must have been thrown, by the force of the powder, more than a quarter of a mile! The finding of the balance of the hull has not even yet been reported.

Selling Illuminating Oils by Weight.—The better quality of illuminating oils are the heavier, and if retailers were compelled to sell by weight, as the refiners are, the small purchaser would have in the weight and color of his oil a ready and correct test of its value as an illuminator.

Domestic Economy.

The "Why" in Vegetable Cookery.

Why should soda be boiled with greens, cabbages, Brocoli and turnip-tops? Because the oil which all these vegetables contain more or less, the soda extracts, and leaves the greens sweet and wholesome; but the water is, after boiling the greens with soda, most unwholesome, perhaps poisonous. A piece of soda, filbert size, is sufficient for a large saucepan of boiling water. Turnip greens have scarcely any oil in them, but are nevertheless much more wholesome for eating when cooked with a little soda.

Why should vegetables be washed in rather warm water first, then in cold, to cleanse them from sand and insects? The hot water, which must be hotter than tepid, cause the insects and sand to fall out at once. Insects do not always dislike cold water and salt, but the hot water kills them. It must be understood that only a small handful of greens or one head of cabbage at a time must be washed, and then instantly thrown into the cold water, which crisps and thoroughly cleanses them. Spinach, leeks, celery and seakale, are thus rendered very clean, and, morcover, are very rapidly cleansed. It is worse than useless to attempt to cleanse vegetables in salt and water. The hardness which salt creates in the water prevents all cleansing properties. The salt may kill the insects (it does not always do this), but they stick on hard and fast; the hot water makes them fall out at once, and the cold water crisps and also blanches them.

Why should turnips be cut across the fibre in rings of less than half an inch in thickness? For three reasons: first the turnip need only be pecled very thin, instead of in the usual manuer, thickly and wastefully; secondly, by so cutting them the fibres are cut across, so that however old the turnip is, it is never stringy; thirdly, they requre only fourteen minutes to boil in plenty of boiling water and salt, and thus the delicate flavor of the turnip is preserved, also they cau be more easily mashed. The thinner the circles of turnip are cut, the quicker they cook and the less fibre they will have.

Salt on Carpets—Protest.—A Minnesota lady writes to her local journal, as follows: As you inserted a paragraph recommending sprinkling salt on the carpets before sweeping to prevent dnst rising, please insert my protest, lest some thoughtless housekeeper injure both her carpet and her health. As the salt cannot all be swept off, that remaining will collect moisure, keep the carpet damp, and the feet treading it, damp and cold. As tea-grounds cannot always be obtained, I recommend cotton or woolen rags, cut by the children or house-maid at their leasure, into bits the size of the finger-nail, and put it into a thiu bag—the little bags that table salt is put up in. Before sweeping, plunge the bag and its contents intc water, (warm is best, it wets more thoroughly) wring out and use as tea-leaves. If desired, tea se can be taken np and washed either iu an ol sieve, collander, or even in the bag, and used again and again,

Best Method for Keeping Beef.—Cut up the meat in pieces as large as you desire. Pack it in a barrel, or cask. Then make a brine as follows: one and one-half pounds salt to one gallon water, one ounce salpetre to 100 pounds of beef, one tablespoonful of groud pepper to 100 pounds of beef. Put in the salt and saltpetre and heat it boiling hot, skim it, then add the pepper. Pour it on the beef boiling hot and cover closely. Your meat will be good and fresh any time. The philosophy is this: the hot brine closes the pores on the surface, preventing decay and meat from getting too salt. Try it. If necessary scald the brine over in the spring, or put on a new brine. Farmers can in this way have fresh meat nearly all the time. The meat should be taken as soon as it is cold, before it has acquired any old taste by exposure to the atmosphere.

An Economical Dish.—Steam or broil some mealy potatoes; mash them with some butter or cream, season them, and place a layer at the bottom of a pie dish; upon this place a layer of finely chopped cold meat or fish of any kind, well seasoned; then add another layer of potatoes, and continue alternating these with those until the dish is filled. Smooth down the top, strew bread crumbs upon it, and bake until well-browned. A small quantity of meat serves in this manner to make a nice presentable little dish.

New Way to Cook Eggs.—We see in a western exchange a hint in regard to cooking eggs, which we think well worthy of being more extensively known. The difficulty is, that eggs cooked sufficiently to fix the yolk, are, so far as the white is concerned, almost indigestible. To better this, do not boil your eggs over the fire at all, but put them into water near the boiling point and let them stay there ten or fifteen minutes, adding hot water enough to keep the temperature uniform. Do this, and both white and yolk will be digestible.

Custard Squash is a very profitable and valuable variety. It grows to a large size, has a very hard shell and is a great keeper. It has a high reputation in market.

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SAN FRANCISCO:

Saturday, April 26, 1873.

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The Late Rainfall.

From all parts of the State, except perhaps the extreme southern, the cheering intelligence reaches us of a rainfall more or less copious, during Sunday the 20th inst., and the night following. It was doubtless sufficient to carry forward the immense breadth of cereels throughout the State to a condition that ensures a fair and perhaps abundant crop; though double and treble the quantity would have been a perfect godsend to those of our farmere who were compelled to rely upon late sown grain.

We hear but one account in regard to the condition of early sown or such as was "sown in the dust" upon summer fallow, and we think our farmers as they look out upon the rank growth of the early sown in contrast this year with the later sown, will make a note of the condition of the two on the 19th of April 1873, and heed its teachings in future years. It is by no means yet certain that we can always rely upon April rains to insure full crops; whilst the fact is pretty nearly established that early-sown grain upon ground in the proper condition can be relied upon.

We presume therefore that without our advice, farmers will look well to their fallow grounds, with the view of taking advantage of the first rains and first opportunity next fall to seed their well prepared acres, with the best seed wheat the country produces.

RECEIVED.—The illustrated seed catalogue of Kern, Stober & Co., of St. Louis, Mo., a well gotten up pamphlet of 64 pages, full of useful information for the flower, fruit or vegetable grower.

We have also received the first number of the Canadian Patent Office Record and Mechanics' Magazine for March 1873, a large, finely illustrated pamphlet of 49 pages.

ON FILE.—A. A. R.; W. L. H.; Parvin's Steam Motor; Poultry growing; J. T. I.; C. H. P.; P. P. S.; and J. M.

Wholesale and Retail.

These terms are well understood throughout the commercial world. The former as signifying the sale or purchase of merchandize in original packages and by the quantity and the latter, the sale or purchase of the same merchandize in broken or secondary packages and in small quantities. From the greater economy in the handling of all goods in the original packages or in bulk and the larger operations of those engaged in the wholesale trade, their per cent profit is fixed by custom at a lower rate than that fixed by the same custom for the retail trader. Again as each merchant or trader whether wholesale or retail must be compensated for handling an article and for the risk he assumes while in his hands, now it is evident that any given article must increase in commercial value the more times the same is handled or changes hands and that increase is greater or more rapid after it passes out of the hands of the wholesale dealer and enters the hands of the reteiler.

The peculiar customs of the retail trade in this state made necessary by the very great number of traders in proportion to consumers, the high rents they have to pay—the high rate of the interest on money, and the transient and unstable character of the people with whom they have to deal, have established a higher increase or rate of profit for them than in most any other State in the union and certainly higher than in any other country in the world. This rate of profit is upon many—very many of the necessaries of life as high as twenty-five and even fifty per cent. Somebody has to pay this high rate of increase and either directly or indirectly it comes out of the consumer.

The man, therefore who sells the product of his own labor at wholesale and buys those articles which he and his family consume, at retail is working his way through this world, financially at a very great disadvantage. Such is the precise position of the

Farmer.

In whatever country you may go and inquire into the relation of the farmer to other classes, in a business point-of-view, he will be found to occupy the same relative position, working to a great disadvantage—selling his own products at wholesale, in the original packages, and buying everything he consumes, other than what he produces, at retail and in secondary packages.

Thus the profits of trade are always against him. In this State his disadvantages are enhanced by the circumstances that have contributed to the high rate of profit allowed to the retail trade. Hence, here the farmere have greater inducements to try and extricate themselves from this state of affairs, which are telling so heavily against them. This extrication can only be accomplished by a perfect system of

Co-operation.

Single-handed, a farmer finds it very hard to stem the current of trade or to strike out from it. His grocer has been very accommodating in extending to him credit, and he dislikes to leave him and give his trade to another. Indeed, he owes him so large a bill that it is very inconvenient just now (and will continue to be so) to pay it up. Hence the submission to the ruinous condition of things between the farmer and his grocer.

What we have portrayed as the condition of a single farmer is the real condition of very many of the farmers of the State. And as we said before, the only possible way to get out of it is to make common cause and unite in the sale of produce and in the purchase of necessaries. In many of the Eastern States this is being done most effectually, and a good beginning has been made in this State, and we hope the work will be pushed forward until the real producer of all that man eats, drinks and wears, shall occupy his normal position in the business world. As we have to sell at whole-sale let us also combine and buy at wholesale, and thus prevent the middle men from consuming all the profits of our labor.

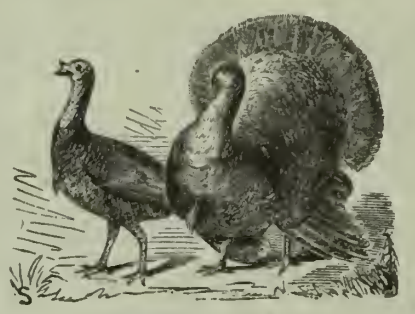
ANOTHER HORSE DISEASE.—An eastern telegram would seem to indicate that a new horse disease was developing itself, this time in the hoofs of the animals, and of so serious a nature that the entire hoof is sometimes lost, rendering the animal entirely useless. It is said that veterinary surgeons consider it as a sequent, incident to the past epizooty.

Practical Poultry Growing.

Now is the best time to commence raising turkeys. With but an infinitessimal part of the care and trouble reputed in the Eastern States and with far less than demanded here during our rainy season, these fowls can be grown in California during the summer months. Young turkeys hatched in May and June need little attention after the first few weeks. In the East they must be cooped up while the dew is on the grass and require constant watching; one of the first maxims of poultry books being that the hen turkey is a "poor mother, and it is two to one if she prove successful, with her roaming habits, in rearing her young." In our climate, during our summer, it is just the reverse; the young should be given to a turkey mother and allowed, after a month old, to roam with her in the fields, care being taken to pen them up at night; though last summer I never penned my turkeys at all after they were 6 weeks old, and I did not lose one out of the flocks I thus allowed to roam.

If fed in the evening they soon learn to come regularly home to their coop or roost. This, after the rains are over; if raised in rainy season they must be protected from rain and damp ground. I recommend a coop such as described by Mr. Ward in a late number of the *Press*, but much larger of course for Turkeys, I use no other for any of my fowls now: and I advise those who care to rear their chickens more easily to adopt at least the tight roof and solid end with door. It is not too hot to hatch eggs in our clear, dry climate, until the Ther. reaches 104° in the place where the hen broods. The best success I ever attained was on the Colorado dessert with the Ther. from 110° to 120° on the outside of the adobe building in which the hens were sitting.

The majority, after reading minute and specific directions, fail to follow them; but, Turkey raising in California is so easy, that I need only mention a few principle points, adapted to this coast, and leave the



BRONZE TURKEYS.

reader to his judgment as to miner details. First of all, breed from old hens, from 2 to 6 years old; if you propose to sell the old hens, because they weigh a few pounds more, and raise young hens to breed from you will have such poor success as to need no directions about Turkey raising. The Gobbler should never be related to the hens, and is best from his first to fifth year. Thus, when your hens are 5 years old, you can reserve young hens, and, the year after, sell everything but them and procure new Gobblers.

The common male turkey will in some cases reach 19 lbs., though the average is from 12 to 15 lbs; the hens about one-third less; excessive fatting may add a few lbs. The Bronze variety, far preferable of course, no matter what the first cost, reach the extreme weights of 45 lbs for a cock and 25 for a hen; the average for adults is 33 and 20 respectively. They are disqualified to compete in poultry shows, according to the standard, if as adults under 30 and 18 lbs; though turkeys often increase in size after the third year. Those who do not wish to incur greater expense should at least procure Bronze gobblers; the increased weight in the progeny of the number of hens one can serve will pay treble his price, the first year.

In purchasing breeders it is best economy to buy the heaviest birds even at fancy prices; a 30 lb. cock at $50 is cheaper than a smaller one of same age, at $5. Large well formed birds of perfect plumage will leave their mark upon the progeny, which will in turn, bring better prices whether sold to the breeder or consumer. It is hardly probable that pure Bronzes will reach the latter, on this coast, for some years to come. Our cut is a fac-simile illustration of a pair of Bronze turkeys in possession of Mr. Geo. B Bayley who lends its use, to accompany this article.

[Concluded next week.]

PRACTICAL BAG MAKERS.—Messrs. Kohler & McDougal, who advertise in this paper, are both young men and operative bag makers. They will contract to make bags for individual farmers or for clubs, who prefer to purchase their own materials for a small price, and thus enabling farmers to get a good article at a favorable price.

The Wheat Bag Question This Year.

This is now one of the greatest matters of interest to our grain growers, who are anxious as to what they shall have to pay next year—whether they will be obliged to purchase at exorbitant rates, or whether they can have them at a rate which the prices they may receive for their produce will justify their paying. We have made inquiries in the matter, of those interested in the trade, and we give their report as they state it to our reporter, for what it is worth, as follows:

The Prospect for Cheap Bags is Good,

That is to say, comparatively speaking. At present we have a stock of 4,000,000 bags on hand, and 6,000,000 are on way by sailing vessels, besides a considerable number by steamers, while the demand for them is very light. We have now here and on the way a stock of about 12,000 000 bags which is as many as were required for last year's crop, and which will be far too great if the present dry weather continues. Even if it does not we shall receive, at least,

Eight Millions More

From Great Britain, during the next year. This with our local manufacture will fully meet our requirements, and bags cannot, except under the influence of speculative purchases of large lots, advance much in price. But the grain growers of the State should not depend on the good will and pleasure of dealers, there is no reason in the world why a joint-stock company could not be formed for their

Manufacture or Importation.

It could be under the control of business men, and as a commercial speculation would pay. Jute can be laid down here from India at 5 cents per pound, duty paid, while Dundee bags cannot be sold at a profit in the market for less than fifteen or sixteen cents. There is thus a sufficiently large margin for profit.

The Cost of Freight

On first-class Dundee, 22x36, wheat bags, is by sailing ships from Great Britain, ¼ cents, by rail from New York 2 cents to 2¼ cents; by steamer from New York 1¾ cents and by steamer from Great Britain about 2 cents. First-class bags are imported in bales of 1,000 each, weighing from 720 to 760 lbs It is thus cheaper to import direct from Great Britain than from New York, but by the latter route such a company could have bags here in four weeks, as opposed to four months by sailing vessels or seven weeks by steamer.

Rates by the car-load and in very large quantities by steamer would doubtless rate much lower than the above figures.

Organization of Granges.

W. H. Baxter, Esq., of Napa City, is the General Deputy of Patrons of Husbandry in California, from the National Grange, which has its headquarters at Georgetown, D. C. On Monday, April 7th, Mr. Baxter was present and organized at Ellis Station, the West San Joaquin Grange, with 25 members. The officers are E. B. Stiles, Master, and H. W. Fassett, Secretary.

Another was organized at Modesto to be known as Stanislaus Grange, J. D. Spencer, Master, and Jae McHenry, Secretary. Application was also made for the organization of three additional Granges in the vicinity of Modesto.

How to Organize.

The question is being everywhere asked in regard to the necessary steps to be taken to affect organization. Nine men and four women are necessary for organization, and the number must not exceed 20 men and ten women. These must agree to form a Grange and be present when the Deputy arrives. They must also agree to accept the position or offices to which they may be chosen; this helps to facilitate business, resulting in speedy organization; after which, any number of persons can unite with and become members of the Grange. It will be understood that the organization of Granges in no way interferes with, but is rather an aid to the Farmers' Clubs, already so extensively inaugurated throughout the State.

LOS ANGELES RIVER BRIDGE.—We acknowledge the receipt of a photograph of a new and substantial appearing bridge, 488 feet in length, built at Los Angeles by the Pacific Bridge Company of Oakland. A portion of the city is shown in the view. The above-named company make the Smith Patent Truss Bridge, and seem to be building them in all sections of the coast. A portion of their work is turned out by machinery at their mills on Berry street in this city.

A WELCOME.—We this week welcome to our Rural family a new and pleasing contributor, Mrs. C. I. H. N., whose "Way-side Growths," indicating culture, we are sure will be appreciated by our readers.

HORTICULTURE.

More About the Rose.

A correspondent in a late number of the RURAL, desired to learn regarding the history of the rose, and although he was partly answered in the same number of the PRESS there is still a great deal more to be said concerning this favorite of all flowers.

The rose belongs to the *icosandria* class in the Linnæan system, which is the twelfth, including a great variety of fruit trees, as the apple, pear, cherry, plum, nectarine, etc., the blossoms of which have twenty or more stamens; these stamens, in the rose, constitute that beautiful array in the middle of the flower, which looks somewhat like yellow gloss silk. In this class the rose is a genus of the order *polygynia*, in which the pistils—those little pointers in the middle of the blossom, are more than twelve, and placed in the same flower with the stamens. The leaves which compose the *corolla*, or the flower, are denominated *petals*, of which there are five in the wild rose, which is considered the representative of the genus. The calyx or flower cup which is usually a green empalement protecting and enclosing the blossom, is, in the rose, pitcher-shaped, fleshy and straightened at the neck.

It is very difficult to distinguish the species of the rose from the varieties. Hence great confusion and uncertainty exists. Loudon describes 77 species. We have seen a catalogue of one thousand five hundred and ten cultivated roses! In striking contrast to this multitudinous array, others have comprised the sorts usually found in our gardens under fourteen species, as follows:—1. *Rosa Alba*, the common White Rose; 2. *Rosa Alpina*, the Alpine Unarmed Rose; 3. *Rosa Canina*, the Wild Dog Rose; 4. *Rosa Carolinensis*, or Carolina and Virginia Rose; 5. *Rosa Centifolia*, or Hundred-leaved Rose; 6. *Rosa Cinnamonea*, or Cinnamon Rose; 7. *Rosa Eglanteria*, the Eglantine Rose, or sweet briar; 8. *Rosa Gallica*, the Gallican Rose; 9. *Rosa Moschata*, the Musk Rose; 10. *Rosa Pimpinellifolia*, or Burnet-leaved Rose; 11. *Rosa Sempervirens*, the Evergreen Musk Rose; 12. *Rosa Spinosissima*, or Most Spinous, Dwarf Burnet-leaved Rose; 13. *Rosa Villosa*, or Villose Apple-bearing Rose; 14. *Rosa Virginiensis*, or Virgin Rose.

In modern systematic arrangements the rose belongs to vast groups of flowering trees called, from this our favorite flower, *Rosaceæ*.

The usual method of propagating the rose is either by suckers detached from the root of the parent tree, or by cuttings or slips. The former are generally to be obtained in sufficient plenty from the common garden roses if they are allowed, (which is not common, or beneficial for fine flowers,) to spread widely; but the Moss, Provence, and others which seldom send up these suckers, must be increased by cuttings or layers. In the latter method, the branches, being bent down, are fastened with a peg into the earth, and the stems being split half through, and covered with soil, until they have struck root, which with those layered in February or March, will be about July or August. Slips of the monthly kinds will take root with great readiness, either in phials of water or in common earth. The more curious sorts of roses however, are often produced and multiplied by inoculation or budding. The usual process by this method is, as is well-known, first to make a transverse incision in the branch, and then another from it downward, resembling a T; the rind or bark is then opened by a proper budding knife, and the bud inserted; the whole is then tied close with a string of cotton twine or matting; this is usually practiced in spring when the sap is rising freely. Several kinds may be inserted on the same bush.

Our professional nurserymen are now well supplied with splendid collections of florist roses, and it is a delightful sight to view the beauty of a real rose garden in the full season. There you may see the *Rosa Indica*, or China Roses, many sorts; *Rosa Indica Odorata*, Tea-scented Roses, in fair numbers; Miniature or Dwarf Roses; Noisette Roses, numerous kinds; *L'Ile de Bourbon* Roses; Musk Roses; Macartney and Microphylla Roses; Sweet Brier; Scotch Roses, and miscellaneous roses in large quantity.

The *Rosa Damascena*, or Damask Rose is a great favorite with us and makes, as long as it lasts, a brilliant show, trained on a house or on a trellis. Its splendid color with its bright yellow center, produces a most striking effect.

"I love the rose—it is a noble flower,
In color rich, and opulent of leavea,
And when her summer garland Flora weaves,
She sees no fairer beauty in her bower:
None which, so redolent of perfume, flings
A sweeter fragrance on the zephyr's wings.

I love the rose—its presence to mine eye
Like beauty, youth, like hope and health appears,
Recalling the gay dreams of early years;
And, when I smell its fragrance wafted by,
I think of virtue, love, benevolence,
Which moral perfumes round life's paths dispense."

Blackberry Culture.

Would you advise me to go largely into the culture of blackberries, upon the supposition that my soil is suited to their growth? Are they a paying fruit at prices at which they are sold in San Francisco, and what is the usual yield per acre? These are questions that come to us from a correspondent who claims to be a subscriber to the RURAL.

We greatly prefer that all correspondents accompany their communications with name. However, in this instance we will answer as though we knew just who we were talking to. We never advise any one to raise any particular kind of fruit, in preference to another. The questions as to their being a paying fruit here, and of their yield per acre, can best be answered by those engaged in their culture, with San Francisco for a market. In regard to their value as a market fruit in the Eastern States, Hon. Wm Parry, of New Jersey, in an address before the Pennsylvania Fruit Growers' Society, said,

Regarding Varieties:

"After cultivating and testing twenty-six popular varieties of blackberries, besides a large number which were no better than the parent stock, he has been able to retain only four, which he regards as valuable for a field crop: Wilson's Early, Dorchester, Kittatinny, and New Rochelle. Their value ranks in the order given. Wilson's early is the largest blackberry in cultivation, ripens early, closely following the raspberry, and therefore commands a high price. Two years ago he sold the principal part of his crop on ten acres for 50 cents per quart wholesale.

A fruit-grower in West New Jersey, who had seventy-five acres in cultivation, sold the fruit last year for $20,000, realizing a net profit of $14,000. The Dorchester variety is early, and often grown in old apple-orchards with great success. A cultivator, near Burlington, New Jersey, in 1864, planted two and a half acres of this variety in a peach-orchard, which was on light, sandy land. In 1865 the plants produced about enough fruit to pay for tillage, but during the next three years they yielded a net profit of $1670.

The Kittatinny is perfectly hardy, large, luscious, very productive, and profitable. The New Rochelle has been longer in cultivation than the others, but is now superseded by them. He considers blackberries among the most profitable crops, on account of their easy culture, hardiness, productiveness, and the high price for which they sell. They are not particular as to soil or location, and, with an occasional dressing of manure, they will continue to yield good crops for many years.

On lands suitable for corn they will average seventy bushels per acre. The land is prepared for cultivation as for corn, and marked with furrows eight feet apart, the plants being set four feet distant in the rows. Muck spread along the rows before setting them in is very favorable to their growth. The average yield for the past ten years has been 2,000 quarts per acre, which have sold for 15.6 cents per quart, making $ 12 income per acre, and leaving, after deducting expenses, a net profit of $200."

The Platycerus Quercus.

"A Constant Reader" says: I find a little bug or insect on my pear trees, which is doing considerable damage. It is from one-fourth to one-half inch long, black or brown color. It bores a hole above the buds or young shoots, causing them to die. Can you tell me what it is and what I must do to get rid of it? Please answer in next week's RURAL.

The bug alluded to is doubtless the beetle, known to entomologists by the name at the head of this article. It is described as a small, blackish-brown beetle, commonly known as the oakhorn bug; which is said by the American entomologist, to destroy the buds and small limbs of the pear by eating into the limbs close to the buds in the spring of the year.

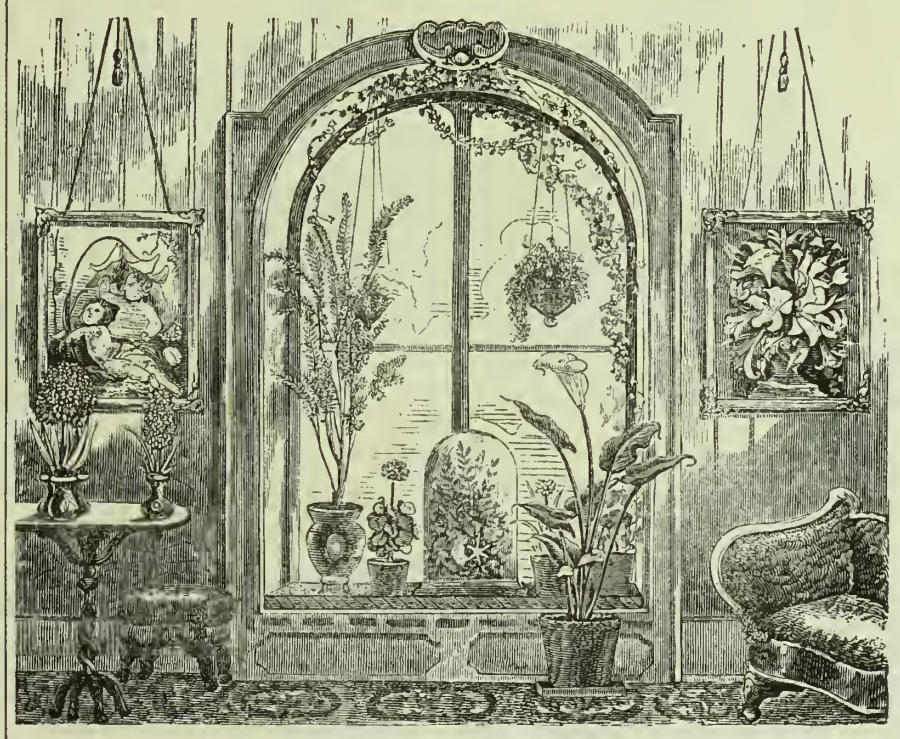
It is difficult to exterminate them because any application to the limbs, of a wash, would necessarily involve almost the complete immersion of the whole tree. The dusting of slacked lime over the limbs when wet with dew, is recommended; sulphur is also applied in the same way with good effect; syringing with soap-suds or tobacco water; but all these are so difficult of extended application that they are seldom resorted to even if known to be certainly effectual.

House Plants and Flowers.

In California the climate is so favorable for the propagation of flowers at any and all seasons of the year, that very little attention is given to real, parlor and window gardening, as it is practiced in the northern Atlantic States, for the pleasures and pastime it affords during the dreary cold of their almost interminable winters. Yet there are many situations with us, where the coldness of the ocean winds even in summer, are to such a degree uncongenial to the growth of house plants and the proper care of them, so little understood, by many who would like to be successful growers of these sweetest of earth's bounties, that we give not only a beautiful illustration of window flower effect, from the 1873 January Quarterly, Flower and Seed Catalogue of Brigg's & Bro. of Rochester, N. Y., but draw largely from the same in our description of the proper management of parlor and window plants.

"Flowers cost so little, and their care and culture is commingled with so much pleasure in watching their progress, that they may be considered the cheapest luxuries afforded humanity. It is a mistaken idea that plants and flowers in a room exhale poisonous gases. A single lamp takes from a room more oxygen than a whole bay-window full of plants. Plants or flowers giving off strong perfume should not be permitted in a sleeping-room.

Plants, like human beings, subsist upon



PARLOR AND WINDOW GARDENING.

food, air and light, and it is given to those who become most familiar with the proper proportion required of each to reach the greatest success in nursing and having choice flowers. An even temperature as a general thing is best for house plants, and they should never be kept in a room where it is below 40°. To great heat and too little light is injurious to plants. Guard against too dry a heat in a room by having a dish of water where it can be evaporated by the heat. Plants should be ventilated, although not allowed a draft of very cold air.

A few of the large leaved plants, such as Callas, Camellias, Oleanders, &c., should also be washed, (taking care to avoid wetting the flowers), for the leaves of plants, like the human skin, contain innumerable pores, which should not be allowed to become clogged. Finally, they should be watered judiciously, and to such extent as a careful study only of their needs may dictate.

Window plants may be grown in various ways, either in pots, rustic boxes or hanging baskets, &c., as the taste or purse may direct. It must be borne in mind that the most important point to be observed is in obtaining a supply of good, fresh or new soil, adapted to the purpose. The best soil we have ever used in our practice, consists of two parts rotted sods, one part well rotted old manure, to which is added a fifth part of sand. These should be thoroughly mixed together. This will suit almost every plant which we are in the habit of growing.

For such plants as Begonias, Fittonias, Gloxinias, &c., &c., a greater quantity of sand than above indicated should be added to give the best results. It would be likewise advisable for amateurs, in the majority of cases, to sift both the soil and manure through a sieve, by which means stones and other useless matter are removed,

Watering plants at the right time is one of the great secrets in plant growing. Friends often exclaim, "How often ought I to water my plants?" We answer, *as often as they require it*; in summer, if in a dry situation, they will need an abundance of water, sometimes as often as twice a day; later in the season, and during the winter months, they will not require watering so often. A practiced eye can readily detect when the soil is becoming dry and filled with air. A little observation and care will, however, soon secure the right attention in this respect.

Be sure that enough water is given to soak through the soil and out of the bottom of the pot, *but in no instance allow water to stand in the saucers.* Some persons water, (as they are pleased to term it), their plants by filling the saucers in which they stand with water. Nothing can be more pernicious than this practice; indeed, very few plants survive such treatment. The Calla Lily (an amphibious plant) is one of the very few exceptions to this rule.

The best aspect for plants during winter is in windows facing south and south-east, where they can secure all the sunshine to be had during the severe cold weather. Sunlight imparts vigor to the plants, color to their foliage, and makes them more productive of flowers."

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch. Dated Washington, D. C., April 22d, 1873.

FOR WEEK ENDING APRIL 8th, 1873.*

SPRING MATTRESSES.—Henry A. Gaston, San Jose. Cal.

GANG PLOW.—George W. Manuel, Napa, Cal.

VEHICLE.—Coffee & Bernard, Dixon, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Bay District Horticultural Society, Spring Exhibition.

The Spring Exhibition of the Bay District Horticultural Society will open on May 1st to continue nine days. The preparations are most appropriate and complete. The character of the exhibition will be different from the autumnal exhibitions, inasmuch, as the various plants differ in their flowering season. It will be chiefly a grand floral display, but as such it is expected to be far superior to any of the former exhibitions of the society.

The hall will be decorated in fine style and be most brilliantly illuminated. On the floor will be distributed over 150 urns and vases containing tropical plants, which will form a decided contrast to the plants arranged on the tables. Statuary and fountains will be placed at intervals, to render the scene more effective. One of the best features of the Exhibition will be the exhibit by the children of the plants received at the last Fair, for which 50 costly prizes will be awarded; this cannot fail to create a taste among the young folks for flowers and home adornment.

Prizes will also be awarded to amatenrs for the best exhibit of house plants, and many have responded to the invitation of the Society to exhibit. Groups of rustic work, vases, stands, aquariums, fern cases, etc., will be so placed as to add to the beauty of the floral exhibition. The galleries of the hall will be gaily decorated with wreaths and garlands; upwards of three thousand feet will be required for the purpose.

Afternoon and evening concerts will be given by Schmidt & Schlotte's popular band. The Exhibition promises to be a most brilliant success; a very large number of season tickets are already sold. The Exhibition opens on May 1st at 3 P. M. Prof. E. S. Carr will deliver the opening address.

SAN DIEGO.—We have received a communication from L. S. R., National City, San Diego Co., giving a glowing description of the prospective advantages of that county for fruit growing, and makes mention of Mr. Higgins and others who are sparing no pains in the cultivation of all the finer semi-tropical fruits.

He says that strangers on visiting San Diego, usually are looking out for cities instead of the beautiful interior valleys that can be found if any one has a desire to; and that no more promising country exists for investment, and invites immigration. We think his head perfectly clear on the subjects he discusses.



A Little While.

Only a little while, darling,
Only a day or year;
The golden hours are slipping past,
The web to the end is ravelling fast,
The twilight is drawing near.

Only a little while, at best,
But a little time to love:
The fairy hours with winged feet,
How swift and solemn, and strangely sweet,
As they near the home above.

I dreamed of angels yester night,
And this was the song I heard:
"Life is too fleet on its shadowy wing,
Love is too sacred and holy a thing,
For ever an angry word."

'Tis but a little while, darling,
May be but a day or year;
The loving and tender, the real and true,
Are falling from sight and slipping from view,
As the night-fall is getting near.

Brushing off the Bloom.

"I made Lulu a blue satin overskirt for Clara Follet's party," said my friend Mrs. Symons, holding up for my admiring gaze a dainty affair fit for Titania's wearing. "You ought to have seen her," the mother went on. "She wore this over a white dress with three puffs and 15 ruffles; her hair was crimped, and she had on the sweetest little white kid slippers. The party was really a stylish affair—supper from Lamira's, colored waiters and everything superb. All the little boys had on kid gloves and bouquets in their buttonholes, and the flowers that decorated the parlor must have cost ever so much money. We sent for Lulu at half-past 12, but they begged us to let her stay for one more dance, so it was nearly 2; after all, before she was at home and in bed." Ten-year old Lulu, with pale cheeks and large brown eyes, listened eagerly to her mother's description of the scene. "Part of which I was" shone in the somewhat triumphant look with which she surveyed the dress she had worn, and exhaled in the little sigh with which she saw it put back in the wardrobe. To my inquiry whether she had not been very tired after it, she answered, "Oh! no, I could have the next night." And I quite believe her. American children with their nervous organizations, respond quickly to excitement. It acts on them as a bellows on a fire, and for a while the flame only burns up more vividly and brightly because of the stimulus dissipation gives. Ashes, sooner or later, end most fires, and blase young people, taking a languid half interest in every thing life offers, are the legitimate product of unnaturally-spent childhood. If, after the children's party, they only would come down to breakfast exhausted, dumpish, dull, and cross, it would be a thousand times better for them and for us. Mothers would probably waken to the fact that late hours, showy dressing, and 11 o'clock suppers were hardly the best pabulum for growing bodies and developing brains. If you do say "yes'," against your better judgment to the elegant bit of pasteboard with engraving and monogram which presents "Master John Smith's compliments to Miss Maggie Brown," etc., and if, still against your judgment, you fabricate for your debutante a costly and beautiful dress, you still have one resource left. Don't in the name of common sense, talk about the dress before the child. Whether it cost three dollars or thirty, whether the lace it is trimmed with be cotton or thread, whether she looks well or ill in it, put it on, and say no more about it than if it were a calico. So much at least you can do in the way of saving the bloom.—*Hearth and Home.*

We can have no heaven after death of which you have not sown the seed before death. Keep a strict watch over your thoughts and affections, over your imaginations and wishes, for according to their character is the character of the demons or angels that keep your company. With what spirit your soul is associated in the body, into the hands of the same, will you fall when you are loosed from the body.

If you would relish your food, labor for it; if you would enjoy your clothes, pay for them before you wear them; if you would sleep soundly, take a clear conscience to bed with you.

Toys as Teachers.

While carefully avoiding the mistake of making play a lesson, some few toys, if well selected, may impart a vast amount of instruction, and that without the child having to undergo any undue mental strain. It would of course, be undesirable to give a little boy five or six years old a direct lesson on the principles of the bridge and the use of the keystone. Give him however, a box of bricks capable of making a bridge with the centering, and show him how to put it together; he will puzzle over it for days, try every sort of arrangment, and unwittingly become gradually and practically acquainted with some important mechanical laws. Again, a little model of a steam-engine made to work by gas or spirit, which may be bought for a dollar or two, is a most attractive toy. Children will watch it for hours. They see the water poured in; they remark that it is made to boil, and soon has to be replenished; they notice the action of the valves, the piston the crank and all the parts. When they come to study the theoretical laws of steam and machines, half the difficulty of their first lessons vanishes. If during his play, the child is so fortunate as to have a really educated nurse or mother, herself acquainted with the outlines of such a general knowledge, the child's play may be made, by simple toys, far more educational and interesting than any set lesson, and the result of the instruction far more fixed on his mind than the simplest theoretical idea could ever be by any number of repetitions and learnings by heart.

What is true concerning the box of bricks and the model engine is also true of a number of other toys; that is they depend for their action on certain laws, with which, by a little skill, children may be made practically familiar without any undue taxing of their minds, and during the time they are engaged in play. Of these may be mentioned the kite, magnetic fish; hydrostatic toys with water-wells, fountains, etc.; pneumatic toys, such as popguns, etc.; toys of all sorts; the kaleidoscope, the magic wheel, etc. All these involve scientific laws which a child may understand familiarly with no more difficulty if properly put before him, than he usually finds in learning to read.—*Good Health.*

The Etiquette of Bowing.—This is so simple and reasonable that one would scarcely suppose it possible that differences of opinion could exist, and yet there are some who think it a breach of politeness if one should neglect to bow, although meeting half a dozen times on a promenade or in driving. Custom has made it necessary to bow only the first time in passing; after that exchange of salutations it is very properly not expected. The difference between a courteous and a familiar bow should be remembered by gentlemen who wish to make a favorable impression. A lady dislikes to receive from a man with whom she has had but a slight acquaintance a bow, accompanied by a broad smile, as though he were on the most familiar terms with her. It is far better to err on the other side, and give one of those stiff, ungracious bows which some men indulge in. Those gentlemen who smile with their eyes instead of their mouths give the most charming bows. As for men who bow charmingly at one time, and with excessive hauteur at others, according as they feel in a good or bad humor, they need never be surprised if the person thus treated should cease speaking altogether; nor can any man who does not lift, or at least touch his hat in speaking to a lady expect that she will continue her salutations.—*Home Journal.*

Religion and Science.—In his speech at the banquet to Prof. Tyndall, Prof. R. D. Hitchcock said:

"It seems sometimes as though Science and Religion had met in a very narrow path, on a very dizzy ridge, and were interlocking their antlers in a struggle that must be fatal to one or the other. If it must come to this, I think history suggests that not Religion, but Science, must go down the cliff; for mankind at large manage to get along very well without much science, but mankind at large have never managed to get along without Religion. Skepticism may endure for a day, but with the sunset and starlight comes either religion or superstition, and superstition is the vengeance of Providence on skepticism, sure to come. But there is no need of any such issue; the path is broad enough both for science and religion, and these scientists are greatly mistaken who suspect on our part either distrust, or jealousy, or fear."

Happy Children.

As house plants cannot flourish without sunshine, so children cannot thrive and be happy without love. How radiant are their bright faces, as they respond to tones and words of affection from the lips of their parents! Little they know of the deep solicitude, of the constant care exercised toward them; but they do fully understand and appreciate protestations of love and tenderness. Why should we be chary of these, when they cost only speaking? "I know now," said a lady not long ago, "that my mother loved me tenderly, but during all my childhood I doubted it. If I were really dear to her, I queried, why did she never tell me so? Why did she never caress me, and assure me of her love? She thought her actions spoke loudly enough, without words. I could not read her actions then as I can now, and how I longed to hear her call me loving names, and to have her wrap me in the sweet embrace of her strong mother love." Many a little heart aches just as this lady's did, and can be made happier by the spontaneous utterances of maternal affection than by beads, or dolls, fine clothes, or costly toys.

Children who grow up in this constant atmosphere of love are rarely mischievous, never vicious. The mightiest of all agencies to lead the young in paths of virtue is in the hands of parents, and to command this agency they need but give expression to the natural overflow of their hearts.

Children, to be happy, need encouragement and praise. It is not enough that they escape censure. Negatives are always cold and blank. Our little ones want warm, positive approval when they have done right; thus they will be made to feel that the paths of wisdom are paths of pleasantness and peace.

Two Incidents with a Moral.—Women in olden times thought it something to be proud of when they were good housekeepers. The science of their domestic economy was eminently practical. Much of the labor of the household was performed by their own hands, and they were willing to extend their watchful care even to the poultry-yard and the dairy. The wives of several of our former most distinguished statesmen were noted for their industry and frugal habits in this respect, But things are very much changed now. We read, a few days ago, of a fashionable Washington lady, who confessed that her extravagance had been the ruin of her husband—a member of Congress. Another instance is related of a Miss Clayton, of Montgomery, New York, who, a few days ago, took laudanum and destroyed herself, "because, being poor, she was too proud to perform housework." These cases carry a grave moral with them, which it would be well for parents having daughters to heed. There is much room for amendment in the habits, taste and dislikes of the rising generation. Most sensible men regard housekeeping as among the highest accomplishments of a wife. She can hardly be a desirable one without them.—*Call.*

Woman in Agriculture.— The New York *Times* says: There is much work about the farm which no man can do so well, which nature seems especially to have intended for the skillful and delicate touch and quick perception of woman; hence, any effort to draw her from that work has been met with a corresponding deterioration of the product, and the fact forced into prominence that nothing was needed but simply such appliances as might lighten labor but still leave all to be guided by her skill. The special work of woman in agriculture should be the care of the dairy, the general direction and the lighter labor of the garden, the poultry-yard and its varied fowls, the bees, and her pleasure, the flowers. These except the dairy, may de called the little things of the farm, yet in them may be stored many dollars of profit or many a luxury which the hard-wrought grain will supply. No man can ever be so successful in raising chickens, none attend so pointedly to the wants of the busy insect who gives the honey, none know so well where and how the varied vegetables of the kitchen garden should be grown.

An old bachelor said "There's much more jewelry worn nowadays than when I was young. But there's one piece that I always admired which I don't often see now." "What is that?" asked a young lady.

"A thimble," was the reply.

He was regarded with contempt and scorn by every lady in the room for the rest of the evening.

EPIZOOTIC, YIELD!

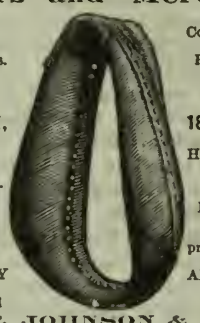
Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H H. H Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

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When soiled it can be cleaned with water without the slightest injury.
Its fixtures are simple, work to perfection, and never get out of order.
Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

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HOLLIHAN & BEARDSLEE.
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WHOLESALE AND RETAIL DEALERS

IN ALL KINDS OF PURE DRUGS AND CHEMICALS Genuine Patent Medicines, Trusses, Cologne Perfumes Soaps, Hair Oils, Pomades, Fancy Goods, Sponges, Brushes, Combs, etc.
Those Goods are new and fresh of the best qualities, and will be sold at very low prices. Please call and examine the stock before purchasing elsewhere.
Physicians' Prescriptions compounded with great care and accuracy, at all hours of the day and night, and none but the best articles used in their preparation. Prices moderate.
Our friends and customers residing in the country will find it for their advantage to order from us. Goods sent by Express to any part of the United States.

Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

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BUSINESS COLLEGE.

A Day and Boarding School for both sexes; the only Institute on the Pacific Coast where a thorough Academic and business education can be obtained.

The Business College Department

Is under the supervision of James Vinsonhaller, who for many years was at the head of Business Colleges of San Francisco.
The Twenty-Second Session commenced January 20th, 1873.
For circulars address
MRS. A. M. OATES, or
1b22-3m JAMES VINSONHALLER.

$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

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Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

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Or a Fine assortment of

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Then call at the

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Maple Leaf Nursery.



Has constantly on hand all varieties of ORNAMENTAL EVERGREEN and DECIDUOUS SHRUBS; also a large assortment of Choice ROSES too numerous to mention. Green Houses and Bulbs, Plants, Flower Garden, Grass and Flower Seeds of all kinds, are for sale by

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Being Agent for the Pacific Ramie Co., and having the largest stock in the State, is enabled to offer extra inducements to purchasers. Orders left at Collie & Stewart's, 18 Post street or addressed direct to H. Allen, corner McAllister and Buchanan streets, will be promptly attended to. fe22-3m

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From 50,000 to 100,000 First-class Plants at $50 per thousand.

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Will be promptly attended to. m29-1m

50,000

Australian Gum Trees,

Including all the desirable varieties, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywards, Alameda Co., Cal.

Address JAS. T. STRATTON,

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Puget Sound Farm for Sale or Exchange.

I offer for sale one of the most desirable farms in the Puget Sound section. Said farm contains 643 acres of excellent land, situated within easy distance of Olympia, the Capital of Washington Territory. New House, Good Barns, and Fences. About 60 acres in tame grass, will seed as much more the present season. About 100 acres of splendid timber, within one mile of saw-mill. Several hundred acres of bottom, covered with growth of alder, willow, etc. Large outside range for stock. Price, $10 per acre, part time, or will exchange for desirable property in Coast or Bay Counties, California.

Address

E. L. SMITH, Olympia, W. T.

Refer to A. T. Dewey, of this paper.

ma29-4t

H. K. CUMMINGS. 1858. H. H. RALSTON. 1873.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

Strawberry Baskets—The Best Yet Out.

A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of basket. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into paper bags. SWAN & CO. are ready to make 20,000 per day.

UNION BOX FACTORY,

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THE HORTICULTURAL SPRING EXHIBITION

OF THE

Bay District Horticultural Society

WILL OPEN ON MAY 1st, 1873, AND CONTINUE FOR NINE DAYS,

— AT —

Horticultural Hall,

Corner of Post and Stockton Streets,.....SAN FRANCISCO.

This will be chiefly a Floral Exhibition However, all Horticultural products will be received.

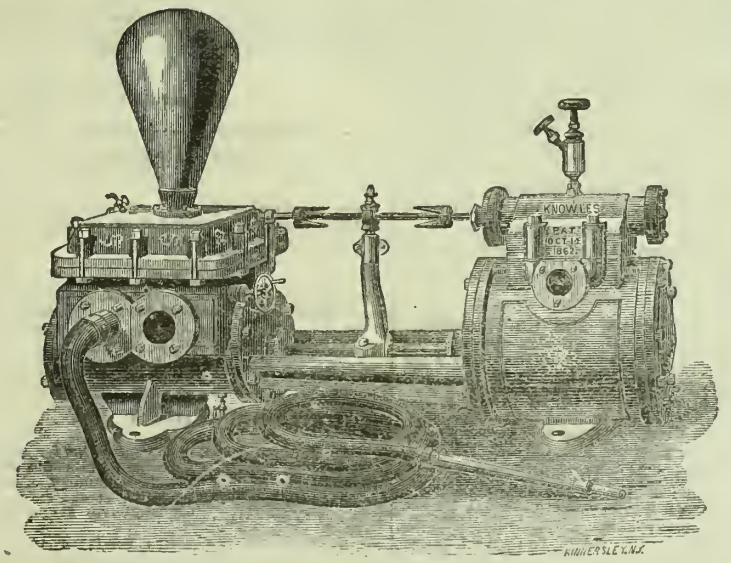
Amateurs are earnestly invited to contribute and compete for special prizes offered.

For particulars inquire of the Secretary,

F. A. MILLER,

ap12-4t No. 622 Clay Street, San Francisco.

KNOWLES' PATENT STEAM PUMP.



It has no Cranks or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a starting-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R., OFFICE OF THE GEN'L MASTER MECHANIC, SACRAMENTO, Cal., January 14, 1871.

A. L. FISH, Esq., Agent of the Knowles Steam Pump, San Francisco—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other. Yours truly, A. J. STEVENS, General Master Mechanic.

U. S. NAVY YARD, NEW YORK, June 3, 1871.

MESSRS. KNOWLES & SBLEY, 91 and 94 Liberty street, New York—Gentlemen: In reply to your note of 31st, requesting my opinion of your Steam Pump, etc., as suggested from my experience with them in actual service, I have to state that I have used your pumps, and entertain the most favorable opinion of their great merit and usefulness, and for every purpose believe them to be superior to any others, and have so recommended and adopted them. They have given complete satisfaction in all cases that have come under my observation.

Yours very respectfully, WM. W. W. WOOD.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiries, we state that the highest award for Steam Pumps at the Eighth or last Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to the Knowles Patent Steam Pump, as published in the Official List September 23d 1871.

A. S. HALLIDIE, President Board of Managers.

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WE BUILD AND HAVE CONSTANTLY ON HAND

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And for Every Conceivable Purpose.

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For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

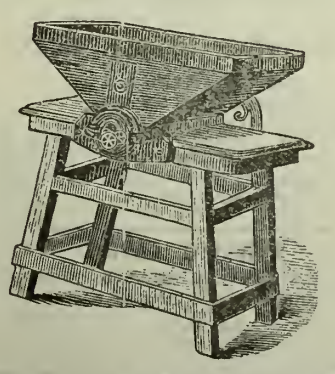
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Nos. 9 and 11 First Street, San Francisco, Cal.

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For Farm use and Custom work. The only Practical Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

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PURCHASERS please say advertised in Pacific Rural Press.



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Vegetable, Field and Flower Seeds,

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FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED.

Mesquit Grass Seed.

Hyacinths, Tullips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.

Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

RUSTIC AND WIRE BASKETS, FLOWER STANDS, FRUIT AND ORNAMENTAL TREES, ETC,

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GARDEN AND FLOWER SEEDS,
FRUIT TREES AND SHRUBS,
CLOVER AND GRASS SEEDS.

Seeds forwarded by mail if desired.

All kinds of FRUIT AND NUTS, also HONEY, constantly on hand and for sale at lowest market rates.

Large Invoices of Eastern and European Garden and Flower Seeds, just received.

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EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,

6v5-2m Lock Box 1874, San Francisco, Cal.

Imported Fowl of All Choice Breeds,

ALSO EGGS FOR HATCHING,



From all the different varieties; packed carefully to send any distance.

ALBERT E. BURBANK,

Stalls, 43 and 44, California Market,

SAN FRANCISCO.

6v5-3m

FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,

6v5-3m Stalls 103 and 104 California Market, S. F.

CHOICE POULTRY.

The advertiser will supply white face black Spanish Eggs for hatching in exchange for one-half the chickens raised—to be delivered to him at the age of 4 months.

ALSO, FOR SALE—Eggs from all sorts of Fancy Fowls.

Address Postoffice Box 1349, San Francisco, or leave orders at 19 New Montgomery street.

a19-2t G. A. HILL.

THE

PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

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IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

The Epizooty and Its Remedies.

The epizooty is upon us. As a sanitary measure, rigid cleanliness and a full and perfect ventilation in any place where horses are kept in buildings or stables, but never exposing them to drafts of cold air.

Feed warm bran mashes twice a day and take the liquor of boiled flaxseed to mix the mash with.

A little pure whisky daily, say half a pint, to stimulate. Liniment for external application on throat, composed of hartshorn and sweet oil.

Sponge the nostrils with a solution of salt and hot vinegar; also wash the mouth with a weak solution of the same. Wet the hay slightly with vinegar. Blanket thoroughly, and give a little exercise daily.

In Pennsylvania, horses kept warm and clean, not worked or exposed, with light feed, such as bran and boiled oats, with little hay, were successfully treated without medicines.

In Tennessee, a warm dry bed, mild food, avoiding exposure to wind and rain, constituted the remedy.

In New Jersey, those did best who kept their horses in stables, without giving any medicines or resorted to any other treatment than a due regard to cleanliness.

Epizooty.

EDITORS RURAL:—This much-dreaded disorder has made its appearance, but in rather a mild form. I have eight head on my ranch that have had it. Seven of them got along without any medical treatment, except that I gave them plenty of exercise and all the green wheat that they would eat through the day, and kept them warm at night; with the eighth one my treatment is William's XXX Horse Medicine applied and rubbed well on the glands of the throat, with the above green wheat. I find the result a speedy cure. W. L. H.

Walnut Creek, April 18.

EPIZOOTY OR EPIZOOTIC. — A man having rheumatism, pleurisy or epilepsy, is said to be rheumatic, pleuritic, or epileptic; so a horse having the epizooty, is epizootic. But can we say that a man has the rheumatic, or the pleuritic or the epileptic, or a horse the epizootic? Will editors of papers note this, and then persist in calling the present horse-disease epizootic; because having blundered, stick to it; pride, however, is not commendable "strategy, my boys."

National Agricultural Congress.

PRESIDENT'S OFFICE,
CHICAGO, March, 1873.

The next, being the second meeting of the National Agricultural Congress, will be held at Indianapolis, Ind., commencing on Wednesday, May 24th, 1873. The necessary local arrangements for the occasion, it is now understood, will be ample and complete.

By the constitution of this body each State and Territory is entitled to two representatives for every State organization engaged in fostering agricultural pursuits. The United States Department of Agriculture, Agricultural Schools and Colleges with an endowment of not less than $20,000, and Agricultural and Horticultural Societies of not less than fifty members contributing to the support of this Congress, are entitled to one representative each.

In urging the appointment and attendance of delegates as thus provided for, very little needs to be said. The purpose of the organization is to afford an opportunity enjoyed by, for an interchange of views and opinions upon all subjects affecting the interests of Agriculture and its kindred industries, and to promote concert of action among those engaged in these pursuits, in all matters relating to them and of national importance.

The advantages to be derived from such a medium, even in ordinary times and under ordinary circumstances are quite apparent, and now that the public mind is thoroughly aroused to the necessity of considering with the greatest deliberation many questions touching the industrial interests of this country, there is good reason to expect a very full representation. No similar body has ever assembled in the United States upon whose action rested a more serious responsibility than will rest upon the action of this, in many important respects. I hope it will be the pleasure as it certainly is the duty of every organization entitled to participate, to avail itself of the privilege. The constituent bodies which have appointed or may hereafter appoint representatives will please notify the Secretary, Chas. W. Greene, Jackson, Tennessee, who will in due time advise them of the subjects to be presented for consideration at the meeting.

JOHN P. REYNOLDS,
Pres. Nat'l Ag'l Congress.

We received the above from the Secretary. Of the character of the movement further than presented in the foregoing, we are not advised.

NOTE.—Editors will confer a favor by copying the above announcement. Officers of Societies will please call attention of local press.

A Rare Opportunity to Buy a Home of Beauty.—To a family of refined taste and culture is now offered one of the most beautiful gardens in California, containing a collection of the most rare and beautiful trees, shrubs and plants to be found on the coast. Commanding a view of the Goldrn Gate, City of San Francisco, Oakland and surrounding country. In the vicinity of Goldrn Gate College, McClure's Military Academy, and within easy reach of the University. Consisting of five acres: water excellent. Will be sold as a whole or one-half. For particulars, principals will apply at Belle View Nursery, Oakland. S. NOLAN, Proprietor. ap5-1m

FOR SALE AT A BARGAIN.

205 ACRES OF GOOD LEVEL LAND, NEW HOUSE AND OUT BUILDINGS.

Young Orchard. Sixty acres in Grain. Good Fences and plenty of Timber. Located within one mile of a thriving town in Lake county. Price $8,500.

P. H. SUMNER,
apl2tf No. 6 Montgomery street, S. F.

Buyers' Directory.

Under this head will be found the names and address of some of our most enterprising and reliable businessmen.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission. 501 Sansome street, N. W. corner Clay.

Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Niantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco, Wholesale and retail dealer in Men's, Youths' and Boys' Fine Custom made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

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A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

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Jacob Schreiber, Dealer in Live Geese Feathers, Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs. Barringer, 51 Fourth street, S. F. Patterns cut and Teacher of harmony system of Cutting all kinds of Garments in the latest styles.

Cards One Dollar Per Dozen, at the People's Art Gallery, 31 Third St. JOHN D. GODEUS, Proprietor.

Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

R. D. Mowry, Poultry and Game Dealer, Wholesale and Retail Dealer and Commission Merchant, Stalls 103 & 104 California Market. Orders solicited and promptly delivered free in the city.

Rag Carpet Manufactory, 840 Market St., S. F. Rags sent by Steamer, Railroad or Express promptly returned when woven. Liberal Rag Carpets for sale. Send for Circular. Address, ALEX. MACKAY.

The White Stall.—E. O. Andrews & Co., Retail Dealers in Butter, Eggs, Cheese and General Assortment of Fancy Groceries, No. 23 Occidental Market, San Francisco. feb22 3m

Wm. J. Haney & Co., Importers and Manufacturers of Rich, Medium and Low Priced Furniture, Bedding, Dental and Barber Chairs, Piano Stools, etc., 12 Market street (Bancroft's Building), San Francisco.

Van Duzer & Hugh, Commission Merchants, and Dealers in Butter, Cheese, Eggs, Poultry, Hides, Tallow, etc., No. 50 Merchant street, San Francisco.

San Francisco Wire Works, 665 Mission St., S. F. C. M. Greenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

A. Galli & Co., General Commission Merchants and dealers in Country Produce, Vegetables and Fruit, 5 & 8 Sansome S., San Francisco. Special attention paid to Shipping Orders. P. O. Box 902.

Fred. C. Warner & Co., General Commission Merchants, No. 21 Metropolitan Market, San Francisco. Hams, Bacon, Butter, Eggs, Cheese, etc., sold on Commission.

A. Lusk & Co., Wholesale Commission Dealers in California and Oregon Fruits, Oranges, Lemons, and all kinds of Canned and Dried Fruits, etc. Pacific Fruit Market, Clay st., below Montgomery, S. F.

Sahl & Co., 579 Market Street, San Francisco. Manufacturers of Carriages, Wagons and Stage Work, of the most improved and practical styles.

Heywood & Hendley, General Commission Merchants, and Wholesale Dealers in Butter, Cheese, Lard, Hams, etc., etc., No. 21 City street, San Francisco. Agents for the Crystal Salt Works. Agents for Sun a Card Crackers.

On Sing, Chinese Intelligence Office, 624 Jackson street, between Kearny and Dupont, San Francisco. Particular attention paid to orders for all kinds of Servants, Cooks, Waiters, Laborers, Men, etc.

Lewis & Pander, Dealers in Stoves. Ranges, Tinware, and all kinds of Kitchen Utensils. For the best and the cheapest, go to No. 33 Geary street, between Kearny and Dupont, S. F.

Every Horse-Owner's Cyclopedia

Is one of the most comprehensive and practical treatises upon the Horse ever published in the United States. It gives a full description and the successful mode of treating the

"EPIZOOTIC INFLUENZA"

And all other diseases to which the Horse is subject, together with a complete description of the natural history, physiology, pathology and general management of the Horse in health and disease. It tells HOW TO TRAIN HIM to various gaits, how to prepare him for the chase, or for hard work, etc. Illustrated with numerous engravings. PRICE, FIVE DOLLARS. It will save its cost many times over in the course of a year. The book is having an immense sale.

AGENTS WANTED. Apply for terms and territory to

A. ROMAN & CO.,
No. 11 Montgomery street, San Francisco.
ap5-1m

LANDS, FARMS, ETC.

Parties wanting to sell would do well to send us a description of their property.

☞ WE MAKE NO CHARGE unless we EFFECT SALES.

We have 500 Farms and over 600,000 Acres of Land for Sale.

Address BRANDON & BIBBINS,
Pacific Land Exchange,
6v3-1y Sansome street, San Francisco.

Choice Bred Fowls, and Eggs for Hatching.

I will spare a few EGGS from my Imported Stock of Poultry, consisting of

LIGHT AND DARK BRAHMAS,
BUFF AND PARTRIDGE COCHINS,
SPANGLED GOLDEN AND SILVER POLISH,
SPANGLED GOLDEN AND SILVER HAMBURGS,
PURE WHITE-FACED BLACK SPANISH,
SILKIES, BLACK, RED GAME
AYLESBURY AND ROUEN DUCK.

—ALSO—

Chester County White Pigs, China Pigs.

M. FALLON,
Seventh and Oak streets, OAKLAND.
17v5-3m

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
5v3-cow-tf California.

Light Brahmas.

New importations having arrived, I will sell the remainder of my old breeding stock, pedigree furnished, at one-half cost of importation.

Eggs

From new importations of BRAHMAS and from LEGHORNS, etc., for sale, as usual, at $5 per dozen.

When less than 50 per cent. hatch I replace the eggs. My stock is surpassed by none on this coast.

aI9-16p-tf M. EYRE, Napa, Cal.

THOROUGHBRED STOCK.

Thoroughbred Cattle, Sheep and Swine for sale. Also eight graded Short-horn or Devon grades; cattle to be taken away by the 1st of September, 1873.

WOOL Stored, Graded, Packed and Shipped on the very lowest terms.

ROBERT BECK.
Sacramento, April 2, 1873. 1234t

Swine Breeders, Attention!

FOR SALE.

An imported, pure bred Chester County WHITE BOAR, bred by Jefferson Shaver, Esq., Westchester county, Penn.

Apply to THOS. E. FINLEY,
Manager of California Stock and Poultry Association.
Office 113 Leidesdorff street, San Francisco. 17v5-tf

SHEEP PASTURES.



The undersigned has 8,500 acres of Reclaimed Tule Lands, affording the best of Clover and Grass Pastures for Sheep, Cattle or Horses. Would exchange part of the land on fair terms for sheep. These lands, if sown with Alfalfa, or any good Grasses, Wheat or Barley, will keep at least ten (10) head of Sheep per acre. For particulars call on or address the undersigned, at 401 California street, San Francisco. A. G. KIBBELL.
ap5-tf

PILSBURY, WEBB & CO.,

(LATE MARSH, PILSBURY & CO.,)

HARDWARE.

—ALSO—

Agents for the best CHOPPING AX, POST AUGER, AND WRINGING MACHINE ever made. For sale cheap. Call and see.

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12v5-tf

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JOHN DANIEL & CO.,
Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,



421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.
21v2-1y

FARMING LANDS

IN STANISLAUS AND MERCED COUNTIES,
Either in large or small tracts.

Apply to W. T. S. RYER,
No. 408 California street,
17v5-tf San Francisco, Cal.

Working Class, MALE OR FEMALE, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 173 Greenwich st., N. Y.
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Saw Manufacturing Company,

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Planing Knives, Curriers' Knives,

SAW MANDRELS AND SAWS OF EVERY DESCRIPTION MADE TO ORDER.

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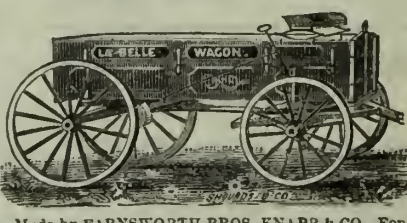
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Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Diff. Bet. Mail & Tel.	Diff. Bet. S. F. & Tel.
" 8....	1 91½	2 96@2 99	.....	.....	.....
" 10....	1 91½	2 96@2 99	.....	.....	.....
" 11....	1 91½	2 92@2 97	3 00@3 29	22	1.00½
" 12....	1 87½	2 96@2 99	.....	.....	.....
" 13....	1 86½	2 96@2 99	.....	.....	.....
" 14....	1 89½	2 93@2 95	3 05@3 31	2½	1.06½
" 15....	1 86½	2 93@2 95	.....	.....	.....
" 17....	1 87½	2 93@2 95	.....	.....	.....
" 18....	1 87½	2 93@2 95	3 01@3 26	19½	1.06½
" 19 ..	1 87½	2 93@2 95	.....	.....	.....
" 20....	1 88	2 93@2 97	.....	.....	.....
" 21....	1 83¾	2 89@—	2 96@3 21	22½	1.13
" 22....	1 83¾	2 89@2 91	.....	.....	1.06¼
" 2....	1 82½	2 89@2 91	.....	.....	1.07½
" 25....	1 82½	2 85@2 87	2 89@3 13	13	1.03½
" 26....	1 82½	2 85@2 87	.....	.....	1.03½
" 2....	1 75	2 83@2 85	.....	.....	1.01
" 28..	1 75	2 81@2 87	.....	.....	1.09
MAR. 1....	1 75	2 81@2 87	.....	.....	1.09
" 3....	1 75	2 81@2 87	.....	.....	1.09
" 4....	1 75	2 81@2 87	2 89@3 14	6	1.09
" 5....	1 75	2 82@2 89	2 77@3 03	17	1.10½
" 6....	1 75	2 84@2 90	.....	.....	1.12
" 7 ..	1 75	2 85@2 91	2 99@3 05	.....	1.13
" 8....	1 80	2 85@2 91	.....	4	1.08
" 10....	1 80	2 85@2 91	.....	.....	1.08
" 11....	1 80	2 85@2 91	2 93@3 05	11	1.08
" 12....	1 80	2 85@2 91	.....	.....	1.08
" 13....	1 80	2 83@2 91	.....	.....	1.08
" 14....	1 80	2 89@2 91	2 89@3 01	5	1.10
" 15....	1 80	2 89@2 91	.....	.....	1.10
" 17....	1 80	2 81@2 87	.....	.....	1.01
" 18....	1 80	2 81@2 87	2 87@2 99	9	1.01
" 19 ..	1 80	2 81@2 87	.....	.....	1.01
" 20....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	2 87@2 99	12	1.01
" 22....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	.....	.....	1.01
" 25..	1 80	2 79@2 83	.....	.....	1.01
" 26....	1 80	2 79@2 83	.....	.....	1.01
" 27....	1 80	2 79@2 83	.....	.....	1.01
" 28....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 77@2 81	.....	.....	99
" 31....	1 80	2 75@2 79	.....	.....	97
APR. 1....	1 80	2 73@2 79	.....	.....	96
" 2....	1 80	— —@—	.....	.....	96
" 3 ..	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	.....	.....	9 ½
" 5 ..	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 76@2 82	.....	.....	96½
" 9....	1 82½	2 76@2 82	.....	.....	96½
" 10....	1 80	2 76@2 82	.....	.....	99
" 11....	1 80	2 76@2 82	.....	.....	99
" 12....	1 80	2 76@2 82	.....	.....	99
" 14....	1 80	2 76@2 82	.....	.....	99
" 15....	1 80	2 76@2 82	.....	.....	99
" 16....	1 80	2 76@2 82	.....	.....	99
" 17....	1 8 ¾	2 76@2 82	.....	.....	97¾
" 18....	1 82½	2 76@3 82	.....	.....	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 76@2 82	.....	.....	98½
" 23....	1 82½	2 76 3/2 82	.....	.....	96½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, April 23, 1873.

The tone of the Produce market has been generally stronger this week, particularly in Wheat which has sustained an advance of from 2½ cents to 5 cents per cental in consequence of the rapidly diminishing supply, and of the dry weather having threatened to cut down the amount of this year's harvest, a week ago as it seemed, to one-half that of last year's crop. The gentle and seasonable rain, however, has revived the hopes of the farmers, and it is generally acknowledged that the production of the coming year, will fully equal that of the last. And if we have a few more showers there is no doubt but that the result will fully equal the anticipation.

Amongst the new features of the week has been the reception of a lot of Oats from Omaha, which has been sold in the market at $2.15 per cental, and which is said to be equal in quality to California Dark Coast Oats San Francisco will eventually become the out et for the agricultural produce of Utah, Colorado and Nebraska, and as people will naturally buy in the same market in which they sell, this will give a still further impetus to the trade of our city.

Many merchants attribute the present dullness to decreased prices for Wheat and Wool. It is notorious that for the greater part of last harvest year that our farmers did not at all obtain fair prices for their Wheat, and now Wool commands hardly more than fifty per cent. the prices that it did throughout a great part of last year. This bears heavily on our farmers, a very large proportion of whom have from five hundred to a thousand sheep, the value of which is thus seriously depreciated.

Receipts.

Receipts of Domestic Produce this week have on the whole advanced, though some of Flour are nearly the same as those of last week, those of Wheat have increased one-half, while those of Barley have decreased in about the same proportion. Receipts of Oats have decreased one-third, those of Potatoes are about the same as those of last week, those of Beans have increased, as also have those of Bran and Hides. Receipts of Wool have doubled during the past week, and those of Wine have increased one third.

We summarize receipts of Bay Produce to date as 13,916 quarter sacks of Flour; 153,503 centals of Wheat; 8,511 do of Barley; 836 do of Oats; 2,291 do of Potatoes; 60 do of Mustard Seed; 1,028 do of Beans; 2,733 do of Bran; 754 do of Middlings; 2,012 Hides; 8 bales of Cotton; 611 tons of Hay; 42 do of Straw, 197 bales of Chicory; 31,580 gallons of Wine; 180 do of Brandy; 41 centals of Onions; 29 bales of Hops, and 64 centals of Peas.

Receipts of Wheat at Oakland Wharf amounted to 40,800 centals, or 201 car loads.

Receipts of Coast produce exhibit an increase in Corn and Barley. We summarize receipts of Coast produce to date as 2,434 centals of Wheat; 5,233 do of Barley; 811 do of Oats; 6,783 do of Corn; 14 do of Rye; 439 do of Beans; 4,716 do of Potatoes; 214 bales of Wool; 792 Hides; 485 centals of Mustard; 81 pipes, 7 barrels and 1 puncheon of Wine.

Barley.

Receipts have been as large this week as the last We note sales of 4,500 sacks of Feed and Good Coast at $1.20, 600 do of Bay Feed at $1.21½, and 1,900 do Choice at $1.25.

Flour.

Flour yet remains stationary. Brazil has been spoken of as a market for it. We ought surely to be able to compete there with the Austrians, who ship Flour from Trieste to Rio de Janerio. Exports last week included 114 barrels; 2,451 half sacks, and 800 quarter sacks to New York, Panama, Central America, Liverpool and Tahiti.

Hay.

Receipts have been nearly as last week. We note sales of 12 tons of inferior at $11.15; 10 do of Tame Oat at $17.50; a cargo of Wheat at $20; a cargo of inferior at $1[illegible]; a cargo of Fair Oat at $15.50; and two cargoes of Volunteer and Wild Oat at $19 to $20.

Hops.

Hops are merely nominal and there are no sales to record. Prices nearly as before.

Oats.

Oats exhibit a small increase in price over last week. We note sales of 9 0 bags of California at $2.10; 100 do at $2.05; 900 do of Oregon, private; and 200 do of Nebraska at $2.15.

Potatoes.

Receipts last week from all quarters amounted to 7,007 centals, about two-thirds of the receipts of last week Prices of Humboldt are much firmer. We note sales of of 450 sacks of Petaluma, from 60 to 70 cents; 2,500 do of Humboldt, from $1 to $1.15; 600 do of Tomales, at from 62½c. to 75c.; and 300 do of Bodega.

Wheat.

Receipts of Wheat last week amounting to 175,881 centals were in advance of those of last week. From Oregon we received 4,225 centals. The price in Liverpool according to the telegrams received by the Associated Press and the Merchants' Exchange fell one cent during the week, but is now at the same figure as it was last week. Freights are still nominally the same, but they are only nominal rates. We note sales of 1,400 bags of Fair Milling at $1.82½; 500 do of Oregon at $1.85; 4,000 do of Choice Milling at $1.87½; 1,200 do of Choice Milling at $1.90; and 2,000 centals for the cargo of the bark "Skiddaw," at private terms.

Wool.

Wool still remains at low prices. Large quantities are beginning to come in. We note sales of 130,000 pounds of Spring at from 13 to 21½ cents.

GENERAL MERCHANDISE.

This week as last, both imports and exports have been small. The former include the "Nuevo Borinquin," from Barcelona, with a cargo of Fruits and Wines; the "Tokatea," from Hong Kong, with a cargo of Chinese Goods; and the steamship "Great Republic," from Panama, with the customary cargo. Exports have included the "Mohong," to New York, with a large cargo of Borax, Brandy, Wine and Whale Oil; the "Apia," to Navigator Island; the "Prince Alfred," to Victoria, with a large cargo of Rice, Sugar, Coffee and Tea, and a similar cargo to Tahiti by the Marama.

Canned goods are scarce. Bags are looking up again Hardware, Iron and Agricultural Implements are dull.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M.	$25 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	45 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	30 00
Rustic, ₱ M	35 00	Lath, ₱ M	4 00
Rustic refuse ₱ M	21 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	20 00
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded floor ng, ₱ M	32 50	Rough Pickets, 6'd, M	20 00
Beaded floor refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved,	
Half-inch, Surfaced, M	25 00	surfaced, ₱ M	40 00
Half inch Surf. ref., M	18 00	Do do refuse, ₱ M	27 50
Half inch Battens, M	22 50	Half-inch surfaced, M	40 00
Pickets, rough, ₱ M	14 00	Rustic, ₱ M	42 50
Pickets, rough, pointed	16 00	Battens, ₱ lineal foot	1
Pickets, fancy, pointed	22 50	Shingles, ₱ M	3 00
Shingles, ₱ M	3 00		

San Francisco Metal Market.

PRICES FOR INVOICE.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, April 23, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton	$60 00	@	— —
White Pig, ₱ ton	60 00	@	— —
Refined Bar, had assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	— —
Nail Rod	11	@	— —
Norway Iron	9		— —
Rolled Iron	6½		— —
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
COPPER.—			
Brazier	— 35	@	— 38
Copper Tin'd	— 50	@	— —
Old Nails Pat	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29		— 30
Composition Bolts	— 29		— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50		14 —
Roofing Plates	13 00		13 50
Banca Tin, Slabs, ₱ lb	— 40		— 42½
STEEL.—English Cast, ₱ lb	— 20		— 25
Drill	20		— —
Flat Bar	22		— —
Plough Points	16		— 17
Russia (for mould boards)	17		— 18
ZINC	9¾		10
Zinc, Sheet	— 9		— 10
NAILS—Assorted sizes	— 5¾	@	— 9

DOMESTIC PRODUCE.

WEDNESDAY M., April 23, 1873.

BEANS.			
Beans small white, lb	5¾	@	6½
do butter	5¾	@	—
do large, do	5½	@	—
do, Bayo	3¾	@	—
do, pink	5½	@	—
do, pea	5½	@	—
BROOM CORN.			
Prime	$ ton	@	120
DAIRY PRODUCE.			
Butter, Cal. fresh, ₱	—	@	—
do, roll's roll	25	@	27½
do, choice	30	@	—
do, new firkin	31	@	—
do, pickled	28	@	—
do, New York	—	@	—
Cheese Cal new	14	@	15
do, Eastern	17	@	—
Eggs, Cal. fresh	26	@	27½
do Oregon	—	@	—
do, Eastern	—	@	—
FEED.			
Bran per ton	20 —	@	22—
Middlings	24 00	@	26—
Hay	11 00	@	20 —
Straw	9 00	@	12—
Oil cake meal	30 00	@	—
Corn Meal	31 00	@	40 —
FLOUR.			
Alviso Mills, bbl	4 50	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Commercial Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
Pacific Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venus, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard, Sacto	4 50	@	5 75
FRESH MEAT.			
Beef, 1st quality, ₱ lb	—	@	—
do, second do	5	@	—
do, third do	4	@	4½
Veal	8	@	10
Mutton	6½	@	7
Pork, undressed	6½	@	7
do, dressed	8	@	9
GRAIN, ETC.			
Wheat, Cal. best	1 75	@	1 80
do, shipping	1 82½	@	1 85
do, milling	1 90	@	—
do, Oregon	—	@	1 85
Barley, Dark Cal'a	17½	@	1 20
do, Light	1 20	@	—
do, Brewing	—	@	1 40
Oats, Cal't	2 25	@	—
do, Light	2 45	@	2 40
Corn, White	1 15	@	—
do, Yellow	1 15	@	—
Buckwheat	1 25	@	1 30
Rye	2 —	@	— —
HOPS.			
California, 1871	—	@	—
do 1872	50	@	—
Eastern 1872 lb	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	32½	@	5
Honey, comb	10	@	2½
Los Ang. Honey	12½	@	30
Onions	6	@	—
Flaxseed	3	@	—
Canary do	4	@	5
Mustard do, white	1½	@	2½
do, brown	2	@	3
Alfalfa	35	@	—
Ky. Blue Grass	30	@	—
Timothy	33	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	3	@	5
Pecan nuts	16	@	18
Hickory do	14	@	—
Brazil do	16	@	—
Cocoanuts, ₱ 100	90 00	@	—
Almonds hard shell	10	@	12½
do, soft	20	@	25
POTATOES.			
Sweet, per lb	1 50	@	—
Humboldt	1	@	—
Monterey	—	@	—
Tomales	60	@	70
POULTRY & GAME.			
Live Turkey, lb	27	@	28
Hens per doz	8 00	@	9 50
Roosters	8 00	@	9 50
Chickens	5 00	@	5 00
Ducks, tame, doz	7 0	@	8 00
Geese, per pair	2 50	@	3 00
Hare, per doz	3 00	@	3 00
Snipe, English, doz	2 00	@	3 50
Venison, per lb	2 00	@	2 50
PROVISIONS.			
Cal. bacon, per lb	11	@	13
Eastern do	10	@	15
do sugared	13	@	—
Cal. Hams	13	@	14½
Eastern do	15	@	16
Cal. Smoked Beef	12	@	—
WOOL, ETC.			
Spring, short, lb	17	@	18
do choice	19	@	21
Burry	15	@	16
Hides, dry	17	@	17½
do wet salted	9	@	—
Tallow	7	@	—

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	17	@	—
Flour Sacks ½s	13½	@	16
" ¼s	8½	@	9¼
Stand. Gunnies	17	@	17½
" Wool Sacks	10	@	65
" Barley do	18	@	—
Hessian 40-in gds	12	@	—
do 60	17	@	—
CANNED GOODS.			
Assorted Fruits in 2½ ₱ cans	3 00	@	—
do Table do	3 75	@	4 —
Jams & Jellies	4 —	@	4 25
Pickles ₱ gl	3 25	@	3 75
COAL—Jobbing.			
Australian ton	—	@	15 —
Coose & Bel Bay	8 50	@	—
Seattle	11 00	@	—
Cumberland, ckts	26 00	@	—
do bulk	22 50	@	23—
Chile	—	@	—
Lehigh	20 00	@	—
Liverpool	11 00	@	15—
West Hartley	14 00	@	16—
Scotch	12 00	@	14—
Scranton	17 00	@	—
Vancouver's Isl	12 00	@	4—
Charcoal, ₱ keg	00	@	—
COFFEE.			
Costa Rica per lb	18½	@	19¾
Guatemala	17½	@	18½
Java	22	@	23
Manilla	21	@	—
Ground in cans	21½	@	—
Chicory	8	@	—
FISH.			
Pac. Dry Cod, new	8	@	8½
Eastern Cod	8 50	@	9 —
Salmon in hlds	7 50	@	—
do ½ hlds	4 50	@	5 00
do 2½ lb cans	—	@	3 50
do 2 lb cans	—	@	3 50
do 1 lb cans	—	@	2 50
Pick. Cod, hlds	—	@	—
do ½ hlds	—	@	—
Pac. Sd. Smok'd	—	@	—
Herring, box	—	@	50
Mack'l, N. 1, ₱ lb	10 00	@	13 00
" Extra	—	@	14 00
" in kits	2 50	@	3 00
" in ess	—	@	4 00
" extra ness	—	@	5 00
NAILS.			
Assorted size lb	5¾	@	9 —
OILS.			
Pacific Glue Co.			
Neat Ft No. 1	—	@	—
Pure	1 25	@	—
Castor Oil No 1	1 35	@	1 40
do do No 2	1 25	@	1 30
Cocoa Nut	10	@	—
Olive Plagniol	5 00	@	—
do Pe sel	4 75	@	—
Paints, lb	9	@	—
do Bagical np	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 50	@	—
Coast Whale	40	@	45
Polar, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Olive pine	40	@	—
Devoe's Brilt	44	@	45
Long Island	40	@	—
Eureka	40	@	—
Downer Kerose	50	@	55
Gas Light Oil	40	@	42
PAINTS.			
Stand. White Lead	11½	@	12
Whitening	—	@	2
Chalk	—	@	1
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11
RICE.			
China No. 1, ₱ lb	7¾	@	7
do do do	6	@	6½
Japan	1½	@	7
Patna	6	@	6½
Hawaiian	8½	@	9
SALT.			
Cal. Bay, per ton	5 00	@	15—
Carmen Island	14 00	@	30—
Liverpool fine	25 00	@	26—
do coarse	8 00	@	20—
SOAP.			
Castile, ₱ lb	12	@	13½
Local brands	5½	@	7
SPICES.			
Allspice, per lb	—	@	16
Cloves	27½	@	—
Cassia	30	@	—
Nutmeg	1 00	@	—
Whole Pepper	23	@	24
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	25	@	30
do Mace	1 50	@	1 75
do Cayenne	25	@	—
SUGAR, ETC.			
Cal. Cube per lb	12½	@	—
Circle A crushed	12½	@	—
do granulated	11¾	@	12
Golden C	10	@	—
Hawaiian	20	@	22½
Cal. Syrup in hfs	52½	@	—
do in ½ bls	57	@	—
do in kegs	60	@	—
TEA.			
Oolong, Canton, lb	19	@	25
do Amoy	24	@	50
do Formosa	40	@	80
Imperial Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpowder, Cant.	30	@	42½
do Pingsuey	50	@	80
do Moyune	65	@	1 25
Young Hyson	25	@	40
do Pingsuey	40	@	70
do Moyune	60	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered hfs, 1½ and 5 lbs	45	@	67
Japan do, 3 lb hfs	45	@	90
do pl'n bx, 1½ lb	35	@	65
do do, 1 lb pap'r	30	@	55
TOBACCO—Jobbing.			
Brick Navys	52½	@	60
Bark do	50	@	55
Dwarf Twist	60	@	65
2 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Solace, Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virginia Brok'g	60	@	95
Fine cut chewing, best's	75	@	90
Banner fine cut	75	@	—
Eureka Cala	3 50	@	—

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, April 23, 1873.

The market for Sole Leather continues the same. French Calf steady at old prices, with light demand.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	28@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil, ₱ doz	55 00@ 70 00
Lemoine, 16 to 18 Kil, ₱ doz	75 00@ 77 50
Lavin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornell an Females, 14 to 16 Kil	66 00@ 72 00
Ogeran Calf, ₱ doz	54 00@
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 8 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 10@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	21@ 25
Wax Side Leather, ₱ foot	20@
Eastern Wax Leather	26

San Francisco Retail Market Rates.

WED ESDAY NOON, April 23, 1873

FRUITS, VEGETABLES, ETC.

The supply of vegetables this week is plentiful. We have to record the reappearance in the market of Summer Squash and String Beans. They are, however, very dear—30 to 35 cts. ₱ lb. The epizooty will most likely be disabling the horses of the market gardeners, preventing fresh supplies of vegetables coming in next week. If so, prices will rule very high. Apples and pears are scarce and high. Strawberries are abundant; the market is full of them.

Apples, per lb	8	@	15	Celery, ₱ doz	75	@	—
Pears, per lb	10	@	12½	Cucumbers, ea	20	@	25
Apricots, lb	50	@	62½	Tomatoes, ₱ lb	12½	@	—
Pine Apples, each	50	@	1 00	Green Peas	4	@	8
Bananas, ₱ doz	75	@	1 00	String Beans	35	@	—
Canteloupes	—	@	—	Cress, ₱ doz bun	20	@	20
Watermelons	—	@	—	Dried Herbs, lb	35	@	—
Italian Chestnuts	50	@	—	Garlic	8	@	10
Cal. Walnuts, lb	20	@	—	Green Corn, doz	20	@	35
Cranberries, ₱ g	—	@	1 00	Lettuce, ₱ doz	20	@	35
Strawberries, lb	15	@	20	Mushrooms, ₱ lb	35	@	—
Raspberries, lb	—	@	—	Horseradish, ₱ lb	20	@	—
Gooseberries*	—	@	—	Okra, dried, ₱ lb	50	@	—
Cherries, ₱ lb	—	@	—	do fresh, ₱ lb	—	@	—
Oranges, ₱ doz	50	@	1 00	Pumpkins, ₱ lb	2	@	3
Limes, per doz	25	@	—	Parsnips, doz	20	@	25
Figs dried Cal	12½	@	25	Parsley	15	@	20
Figs, Smyrna	25	@	35	Pickles, ₱ gal	50	@	75
Asparagus, lb	6	@	8	Radishes, doz	20	@	—
Artichokes, doz	35	@	40	Summer Squash	30	@	—
Beets, ₱ doz	20	@	—	Marrowfat, do	2	@	3
Potatoes, New ₱ lb	4	@	5	Hubbard, do	2	@	3
Potatoes, sweet	3	@	5	Dry Lima, shl	8	@	10
Broccoli, ₱ pc	10	@	15	Spinage, ₱ bskt	25	@	50
Cauliflower, ₱	10	@	14	Salsify, ₱ bunch	10	@	—
Cabbage, ₱ doz	75	@	1 00	Turnips, ₱ doz	20	@	—
Carrots, ₱ doz	20	@	—	Rhubarb	8	@	10

POULTRY, GAME, FISH, MEATS, ETC

Poultry was in small supply last week, but the demand is very slow. Hare comes in slowly, and Wild Rabbits are scarce. Tame Rabbits are, however, plentiful. All kinds of Fish are much cheaper this week than last, and somewhat more plentiful, but the principal cause of the cheapness is that the Lenten demand has passed away. Salmon Trout are from $1 to $1.50 ₱ lb.

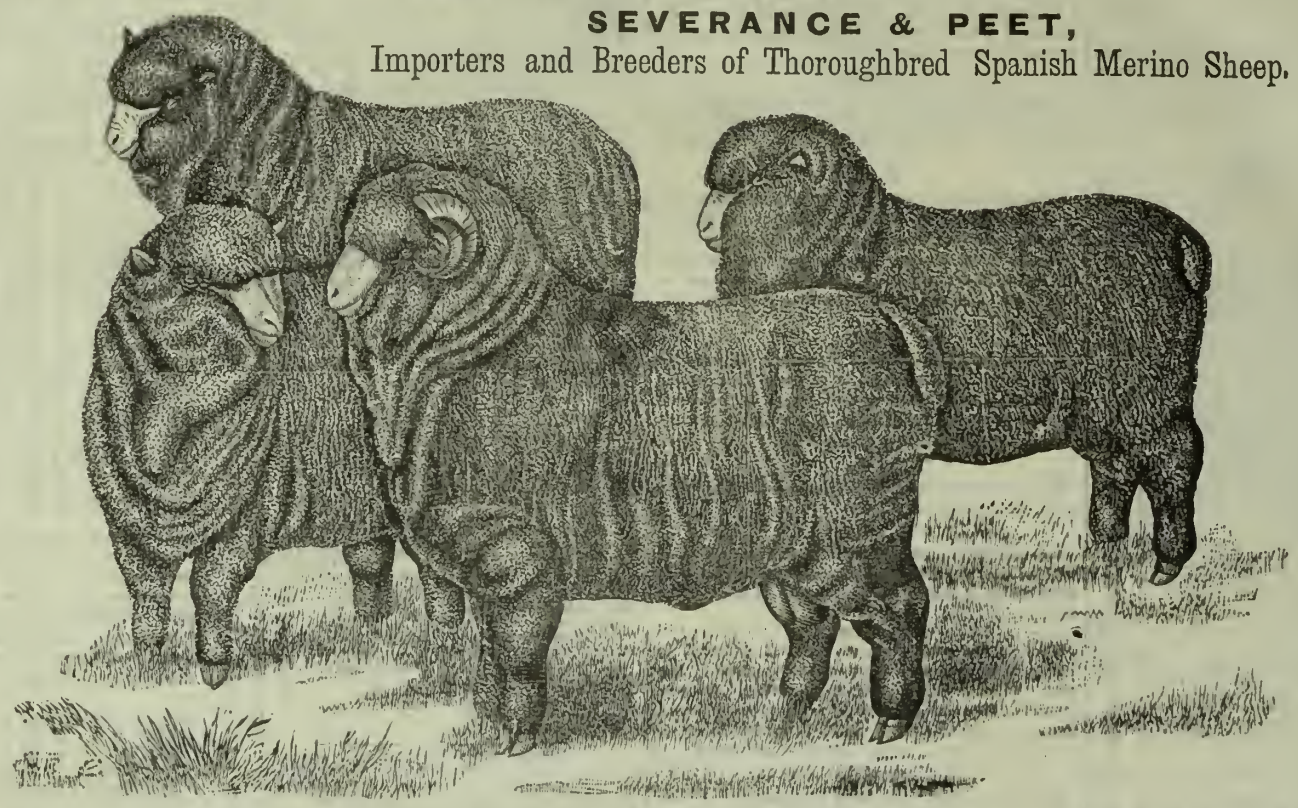
Chickens, apiece	1 00	@	1 25	Choice D'field	20	@	—
Turkeys, ₱ lb	30	@	—	Whittaker's	18	@	20
Mallard Canvasback, pr	—	@	1 00	Flounder, ₱ lb	15	@	20
Tame, do	1 25	@	1 50	Salmon, ₱ lb	10	@	—
Teal, ₱ doz	—	@	—	Smoked, new*	20	@	—
Geese, wild, pair	1 00	@	1 50	Pickled, ₱ lb	5	@	6
Tame, ₱ pair	4 01	@	5 00	Salmon trout lbs	15	@	—
Snipe, ₱ doz	2 50	@	—	Rock Cod, ₱ lb	10	@	—
Pigeons, dom. doz	50	@	—	Cod Fish, dry, lb	12½	@	—
Wild, do	3 01	@	—	Perch, in water, lb	10	@	12½
Hares, each	35	@	—	Fresh water, lb	12½	@	15
Rabbits, tame	50	@	75	Lake Big Trout*	25	@	30
Wild, do, ₱ doz	37

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

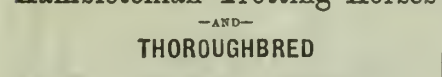
Stock Notices.

H. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.



GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THE R GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle) They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

WATT & McLENNAN,

WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

MAURICE DORE & CO., Auctioneers.

Thorough-Bred Stock at Auction.

ON TUESDAY,

May 13, 1873, at 11 o'clock A. M.,

AT SAN MATEO,

AT THE DAIRY FARM

We shall sell the well known herd of DURHAM STOCK belonging to the

Howards of San Mateo:

280 Head of First-Class Stock,

CONSISTING OF

Thorough-Bred Bulls,
Thorough-Bred Cows and Heifers,
High-Grade Cows,
Heifers and Calves.

The grades are the product of the best selected stock in the country (many of which came from Henry Clay's celebrated herd), have been always bred to thorough-bred bulls, viz: "Orion," "Young Belvidere," "Harrold IV," "Cyrencester Duke," "Duke of Northumberland," "General Halleck," "Water Prince," "Wm. Dean," etc.

Also, TWO FINE STALLIONS,

Four and five years old, by "Royal Clyde," out of "Dublin Kate;"

Twenty Head of Fine American Horses, Mares and Colts.

For particulars and catalogues apply to GEO. N. SWEEZY, Marysville; GEO. H. HOWARD, 523 Montgomery street, San Francisco; S. G. GOODHUE, San Mateo, or at our office. MAURICE DORE & CO.,
a19-4t Auctioneers.

Great Cattle Sale

—AT THE—

WALSH RANCH, COLUSA COUNTY, CAL.

—ON—

Wednesday, April 30th, 1873.

The undersigned will offer for sale at public auction, at the WALSH RANCH, in Colusa County, Cal., on WEDNESDAY, APRIL 30th, 1873, commencing at 10 o'clock A. M., some

Ten or Twelve Hundred Head of Fine American Stock Cattle.

The reputation of the Cattle bred on the above named Ranch is well and favorably known, and the lot now offered for sale is regarded by competent judges to be unequaled by any band in the State. Among these Cattle are to be found a fine lot of young Bulls and some superior Milch Cows. The sale will be made in lots to suit purchasers.

There will also be offered, after the above, some fine Thoroughbred Stock, with full and complete pedigrees.

The HON. JOHN BOGGS, of Colusa County, will conduct the sale.

TERMS OF SALE—Cash, U. S. gold coin.

an19td S. E. CHAMBERS.



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

---

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.

—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

"Blood Will Tell."

☞ "In breeding GRADE animals on either side, you breed BACKWARDS! With FULL-BLOOD and THOROUGHBRED on either side you breed FORWARDS." —*Alexander.* "You get no FIGS from THISTLES"—*Old Proverb.*

I have 30 head of full-blood, thoroughbred, "Short-Horn" Durham Cattle—Weanlings, one, two and three years old—embracing THREE of the best and most fashionable strains (including the MILKING) from several of the finest herds in Kentucky. Also 300 head of pure-bred SPANISH MERINOS from Vermont and New York, and Cotswolds from Kentucky. All my cattle are "American Herd Book," registered, and all my sheep are perfectly certified. Address

PETER SAXE,
Mission St. Stables, cor. 22d and Mission Sts.,
24v4-tf San Francisco, Cal.
Office and Rooms, at the Morton House, Post street.

The Trotting Stallion NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1000. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderbilt in three straight heats in 2.25¾, 2.25¾, 2.24¼. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2. 5¾, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Naubuc Farm, San Lorenzo, Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,
12v5-9t 637 California street, San Francisco.

DURHAMS FOR SALE.

Three Fine Thoroughbred Cows, and Two Young Bulls.

All superior animals. Enquire of

13v5-tf E. S. HOLDEN, Stockton.

Jersey Cattle.

I have now for sale, and will be in regular receipt of,

Imported and Thoroughbred Jersey Cattle,

WITH AUTHENTIC PEDIGREES.

Their reputation for Butter stands unequalled.

R. G. SNEATH,
15v5-2m Menlo Park, Cal.

SOUTH DOWN SHEEP.

From my flock of thoroughbred Sheep, of this celebrated breed, I am willing to sell a few head of both Rams and Ewes.

Address JESSE D. CARR,
a5-1m Gabilan P. O., Monterey County, Cal.

---

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shiriand, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

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TO DAIRYMEN, OWNERS OF HORSES, AND STOCK DEALERS

We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent; and the report further says that if the "Farmers would note the difference in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and same at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

The Meal can be had of the HAY AND GRAIN DEALERS of the city, and all orders will receive prompt attention.

☞ Pure raw and boiled Linseed and Castor Oil constantly on hand; also, a very superior article of Metallic Paint—the best and cheapest in market. Address

PACIFIC OIL AND LEAD WORKS,
P. O. Box, 1443, San Francisco.
Office, 3 and 5 Front Street, Works, King St., near Third.
15v5—3m

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast or slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,

And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Lautenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

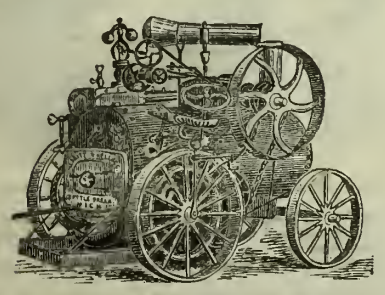
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KELLER & CO.,

43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.

AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent),

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

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WANTED.

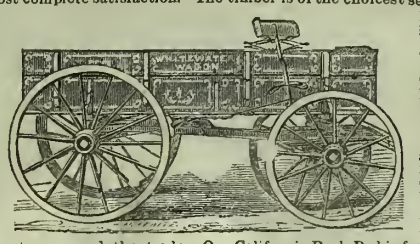
Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. CHAS. F. BECHERER & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v5-3m

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THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



TUSTIN'S PATENT

FIRST PREMIUM WINDMILLS

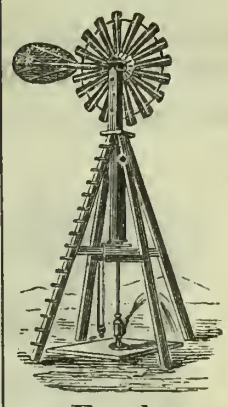
ARE THE MOST POPULAR

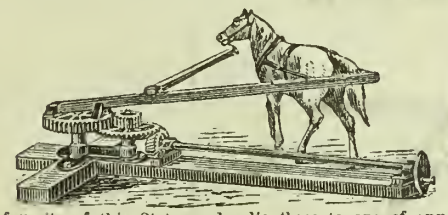
Of any on the Pacific Coast.

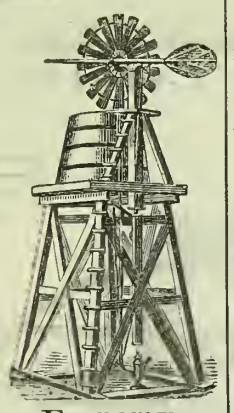
State and County Rights for sale.

Send for a Descriptive Circular containing Price List and all other particulars, postage free.

TUSTIN'S ECLIPSE HORSEPOWER


Eureka.




Economy.

Is now the favorite of this State, and sells three to one of any other make.

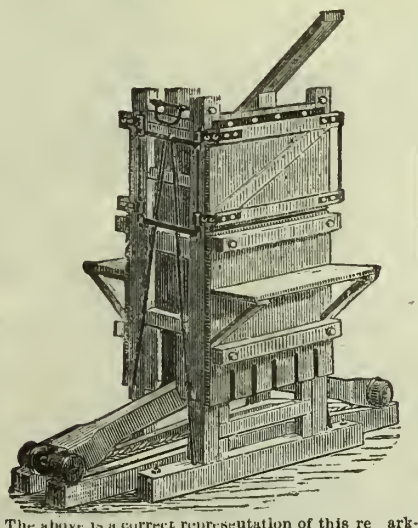
☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the **Golden State Windmill,** which is an infringement on the **Celebrated "Eureka" Windmill,** for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

MANUFACTORY, corner of Market and Beale streets.....SAN FRANCISCO.

W. I. TUSTIN, Inventor and Patentee,

se16-1am3m And Pioneer Windmill Manufacturer of the Pacific Coast.

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable **EAGLE HAY PRESS,** the invention of J. A. McGilliviral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of beating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 550 pounds. Reference, Maj. Rob't Beck.

We have added to this Press this season an improvement (patented) which does the stamping, dispensing with men to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

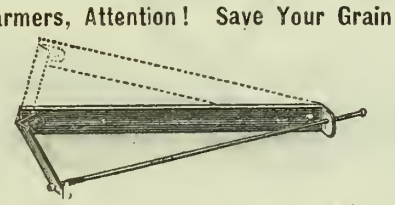
Who are the Proprietors on the Pacific Coast, and will endeavor to have a supply constantly on hand.

12v5-2im3m-2ts

SELL YOUR PATENTS

Through WIEBTER & Co., 17 New Montgomery street, SAN FRANCISCO, CAL.

Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.

Orders solicited. Address WM. S. MURPHY, N. E. cor. Drumm and California sts., S. F.
JAS. T. ISH, Proprietor. 13v5cow tf

BAKER & HAMILTON,

SACRAMENTO AND SAN FRANCISCO,

Importers of

HARDWARE,

Agricultural Implements, Harvesting Machinery, etc.

Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

Haines' Genuine Headers, Bain's Header Wagons, Bain's Farm Wagons.

The celebrated PITTS IMPROVED THRASHERS and Horse Powers.

Portable Steam Thrashing Engines.

Hand and Horse Power Hay Presses.

Lock Levers; Holliugsworth and Whitcomb's Wheeled Hay Rakes.

Wood's Revolving Horse Rakes.

Haud Rakes, Scythes, Snaths, Forks, Shovels, Baling and Fencing Wire, Rope, Nails, Belting, Machine Oils, etc. A full stock of SHELF HARDWARE.

EXTRA PARTS for repairing Harvesting Machinery.

Orders by Mail or Express will receive prompt attention. Send for Circular. Address

BAKER & HAMILTON,

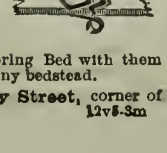
15v5-3m Sacramento or San Francisco.

WARNER & SILSBY

Manufacture all sizes of

Bed and Sofa Springs,

Which they offer to the trade at reduced prices; also the celebrated **Obermann Self-Fastening Bed Spring.**



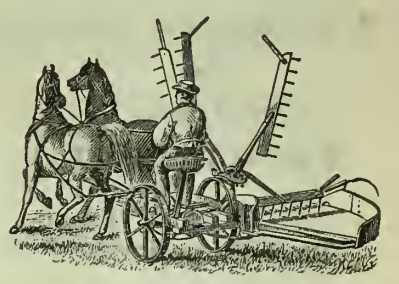
Any man can make his own Spring Bed with them by attaching them to the slats of any bedstead.

No. 147 New Montgomery Street, corner of Natoma, San Francisco. 12v5-3m

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For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,

BUCKEYE REAPER,

BUCKEYE SELF-RAKE REAPERS,

HAINES' GENUINE HEADER,

VIBRATOR SEPARATOR

(Manufactured by Nichols, Shepard & Co.),

MOUNTED HORSE-POWERS,

TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,

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MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

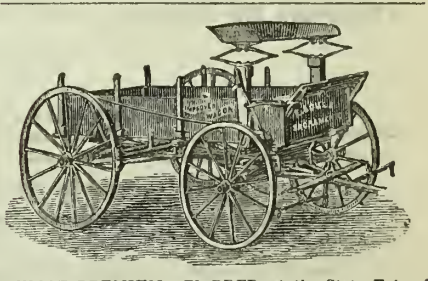
HAS A DOUBLE MOTION.

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

TREADWELL & CO.,

Sole Agents Pacific States San Francisco.

Old Stand, Market, head of Front Street. 122-3m

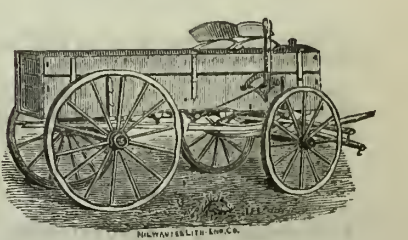


FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best Improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,

ap22-3m San Quentin, Cal.

THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,

being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,

15v5-3m Sacramento and San Francisco.

Hazelton Brothers' Piano Fortes

ARE CONSIDERED

By all Responsible Musicians

TO BE

FULLY EQUAL

TO ANY IN THE ARKET.

Their Superiority

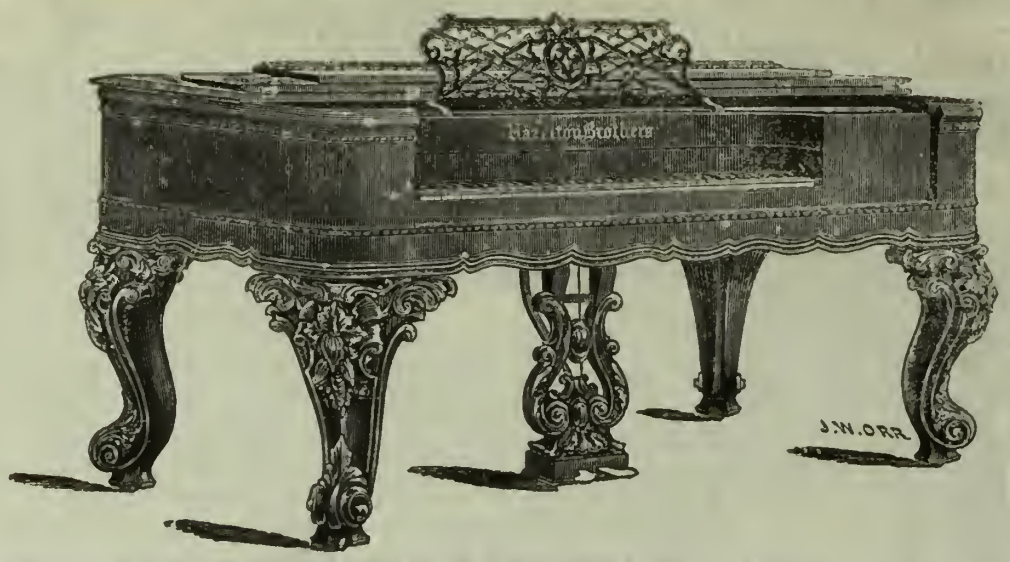
HAS BEEN ESTABLISHED BY

THE MOST

THOROUGH TEST

—OF—

OVER 20 YEARS,



AND IN

NO INSTANCE

Have they failed to Give Satisfaction.

BEING MADE OF THE

BEST MATERIAL,

They will

Stand the Most Trying Climate.

EVERY INSTRUMENT

HAS A WRITTEN GUARANTEE

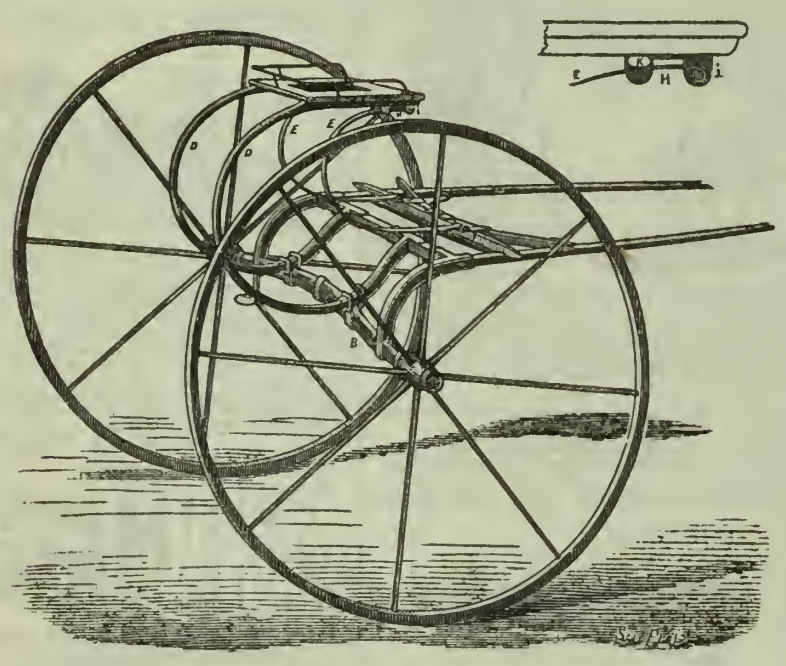
—FOR—

FIVE YEARS.

☞ Send for Catalogue and Price List. ☜

9v5-1am10t Agency at Eaton's Music Store, 138 Montgomery Street, Occidental Block, San Francisco.

BILZ'S PATENT C-SPRING SULKY,



Patented December 26, 1872.

Pronounced the Cheapest, Lightest, Most Durable, and Easiest Riding Sulky ever offered to the Public.

Orders will be taken from any part of the State of California, and the Sulky sent by Wells, Fargo & Co.'s Express, C. O. D., for $100, coin. If it does not prove to be all that is recommended, it may be returned by prepaying freight, and the money will be refunded.

County Rights will be sold in the States of California, Oregon and Nevada.

A large supply of iron axle header wagons—three different sizes; Spring Wagons, Buggies and Farm Wagons constantly on hand.

All work made from best of materials and warranted.

Address J. A. BILZ,

17v5-1am3m Pleasanton, Alameda County, Cal.

SEASONABLE SEEDS

At Reduced Prices.

The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
Yellow Globe.	Long Red.

All Imported Seeds.

—ALSO—

Grass and Clover Seeds.

Timothy,	English Rye Grass,
Red Top,	White Clover,
Kentucky Blue Grass,	Red Clover.

ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

GEO F. SILVESTER,

No. 317 Washington Street,

6v2-1y10p SAN FRANCISCO.

Improve Your Poultry.

It Costs No More to Keep Good Fowls than Poor Ones!



Eggs For Hatching.

SEND STAMP FOR ILLUSTRATED CIRCULAR

Containing a full description of all

The Best Known

AND MOST IMPROVED BREEDS OF

POULTRY,

—TO—

GEO. B. BAYLEY,

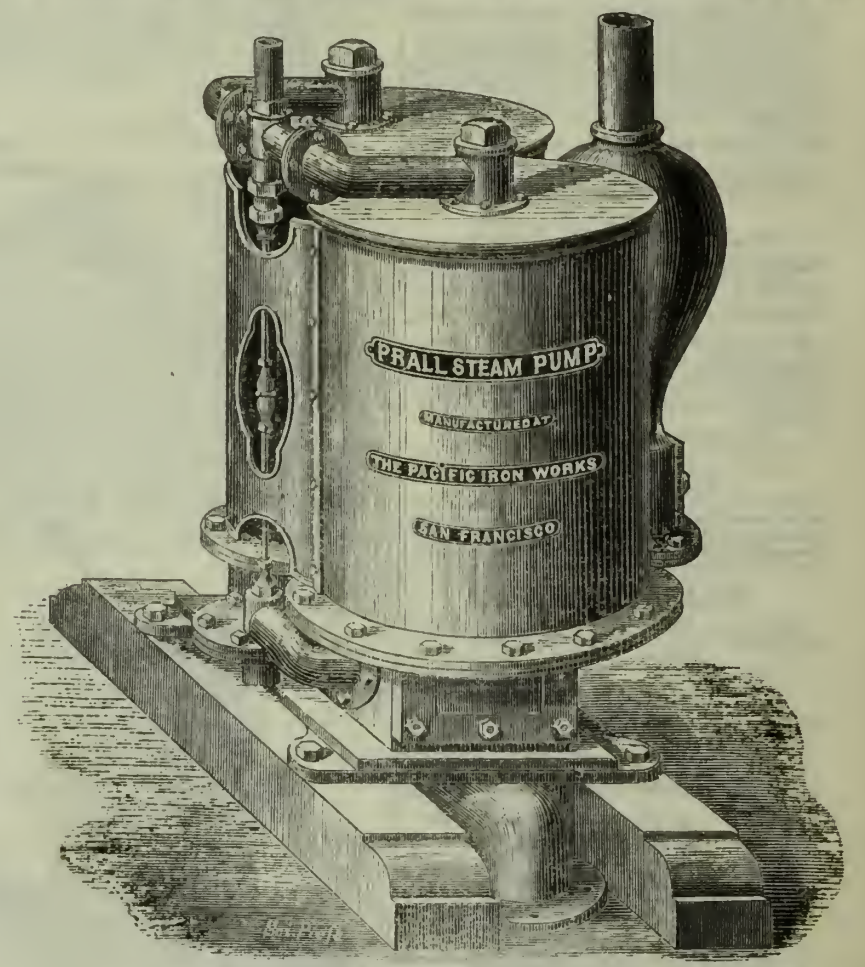
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15v8tf

Send this paper to your friends abroad.

THE PRALL CONDENSING STEAM PUMP.

The Cheapest, Most Reliable, Most Durable and Most Economical Pump in Use.



This remarkable Pump, though having been used extensively in the Western States for the past year, is now for the first time offered to the trade of the Pacific Coast.

It is adapted to the raising of water or other liquids, under all possible conditions where steam can be obtained, operating absolutely without machinery with more economy and less liability to derangement than any Pump in use. As a MINING PUMP its advantages are most obvious.

The steam is condensed instead of being exhausted into the shaft or tunnel. It is not affected by mud, sand or grit, having no working parts to wear or cut out.

It is economical of steam, because all friction is avoided, and the steam is made to do double duty, that of direct pressure and then by condensation, utilizing the atmospheric pressure to lift the water to the Pump.

It requires no lubrication nor any attention whatever.

For IRRIGATION and raising water for stock purposes, the Prall Pump is vastly superior to anything ever before invented.

It requires less steam to elevate water from 20 to 30 feet than would be necessary to move any other style of Pump doing no work.

It is so simple that any one of ordinary intelligence, however unaccustomed to machinery, can operate it.

They are constructed of seven different sizes, with capacities ranging from two to fifty thousand gallons per hour.

Boilers furnished with the Pumps when desired.

Manufacturing Agents, **Pacific Iron Works,**

15v2feow-bp tf P. O. BOX 726, SAN FRANCISCO.

DEVON STOCK FOR SALE.

A Herd of superior Devon Cattle—Milch Cows and Calves from full bloods to grade stock, all of a very superior character



From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the ranch of J. J. FELT,

an25-3m16p Three Miles from Menlo Park.

FARMERS, ATTENTION!

Sacks! Sacks! Sacks!

All farmers wishing to secure cheap and durable Grain Sacks will find it to their interest to call on us before going elsewhere.

KOHLER, McDOUGALL & CO.,

Bag Makers, 221 Davis st., one door south of Clay,

15v8-3m San Francisco.

New York Seed Warehouse.

ESTABLISHED IN 1852.

R. J. TRUMBULL,

[Successor to C. L. KELLOGG]

Wholesale and Retail Dealer in



The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSK-MELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v8-3m

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MAY 3, 1873. [Number 18.

Parvin's Steam Plow.

We seize with avidity and interest upon anything that seems to promise success in the line of steam plowing, in which the power is locomotive or self-moving; because it seems to us to be what we want upon our wide plains and prairie lands.

We must have if possible a steam motor that will start off for a mile, or five miles if necessary, with its gang of six or eight plows, and return, doing its work well. Parvin's invention, or combination of locomotive and railroad track, seems to give promise now of becoming *the* motor for the coming steam plow. In order that our readers may be kept informed of the progress made in this department of agricultural invention, we append from the last National Agricultural Report, the following:

Steam Plows.

Before leaving the department of plows, a word must be said in reference to those which are impelled by steam-power. A brief mention will suffice, for though we find no less than thirteen patents in this class for the year, but few of them are deemed worthy of special notice.

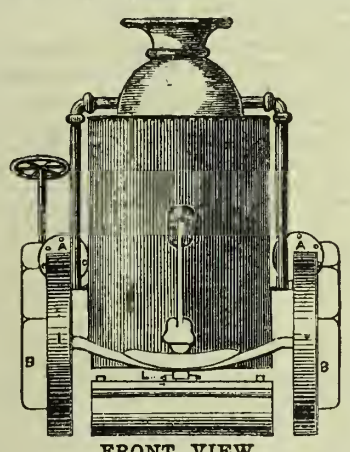
Of these thirteen, one is intended to be dragged across the field by means of a chain or cable and stationary engine, according to the well-known plan. The improvements claimed are of minor importance, and are merely intended to increase the efficiency of the machine. The other twelve carry their own power. Of these, two belong to the class known as rotary spaders.

Among the ten may be found two provided with propelling legs, designed to push the engine and plow along; another claims as an improvement the provision of blocks shaped like a horse's hoof, and placed upon the periphery of the traction-wheels. In another, the machine carries and lays its own track in the manner of some road-engines, causing a rotary motion in a horizontal shaft located at or near the hind part of the bed. This shaft is connected by suitable gearing to a driving-wheel suspended beneath the bed of the engine. The driving-wheel, it is understood, does not touch the ground, but is provided with an endless chain, the alternate links of which are made with ridges that mesh into suitable recesses on the periphery of the wheel.

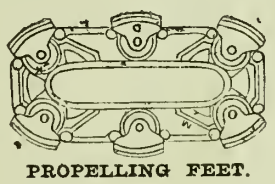
At some distance in front of this driving-wheel is located another wheel of like dimensions and construction, hung in a similar manner. The endless chain referred to also engages with this wheel, so that when steam is applied, the wheels are revolved and the chains travel over them. At regular distances along this chain is placed a series of metal plates, constituting the feet of the machine, and shod with wooden shoes about two inches thick. At each end of the feet is placed a roller of some ten inches diameter, and upon these rollers rest the tracks or ways attached to the under side of the bed of the engine.

Thus it will be seen that the body of the engine rests and moves upon a series of rollers attached to feet, which are automatically raised from the ground, carried forward and deposited again in front, to be passed over regularly. In other words, the machine carries and lays its own track. Its operation is precisely as if a series of rollers were attached to ties laid in a straight line across the field and the engine dragged over them. The only difference is that in this case the ties are chained together and are picked up, carried along and are used continually. The construction will easily be understood by reference to the well-known endless-chain horse-power.

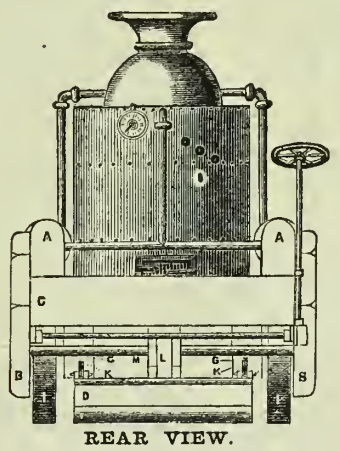
The means used in the case under consideration to propel the carriage consist of just such an endless carrier, arranged to come in contact with the ground—two feet being always on the ground and three off. It ought to be remarked that this principle of propulsion of steam-plows is not for the first time applied. In this case the real novelty, aside from detail, consists in combining the traveling feet with suitable guiding mechanism. The engine is guided by means of two forward wheels mounted on pivoted axles, and so arranged as to be turned right or left at will. The plows, which are of ordinary construction, are connected to the rear part of the machine, and are arranged for the necessary vertical adjustment.



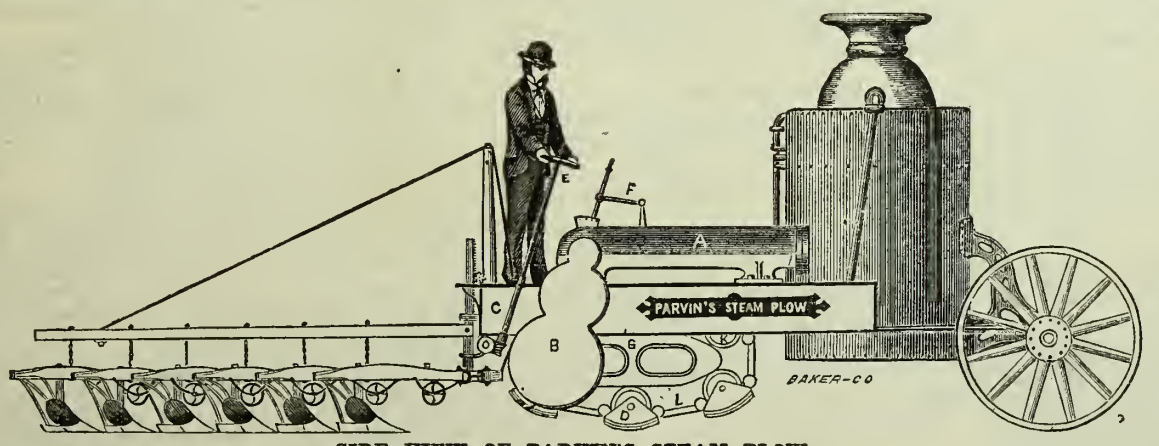
FRONT VIEW.



PROPELLING FEET.



REAR VIEW.



SIDE VIEW OF PARVIN'S STEAM PLOW.

A. Casing or Cover of Engine. B. Gearing Cover. C. Water Tanks and Bed of Engine, as well as the Frame of Machine. D. The Foot or Shoe of Machine. E. Stearing Apparatus. F. Reversing Lever. G. Bed or Truck of Engine.

We are informed by a correspondent who witnessed the operation of this steam-plow last fall in a field near Philadelphia, that it did some remarkable work. The engine itself appeared to be defective mechanically, and open to improvement, but the method of traction and guidance seemed to work well. On the occasion referred to, the gang of six plows was attached to the machine, steam was got up, and the engine started. The field was traversed for about a quarter of a mile, the plows being pushed in almost to the beam, and the engine moving at a rate that required pretty rapid walking to keep up with it. On reaching the end of the field the plows were unyoked and the engine turned around. The plows were then again connected with the engine and a return to the starting point made. The experiment was measurably a success."

The steam plow alluded to in the foregoing is Parvin's and the one illustrated on this page. This motor was exhibited at the Illinois State Fair at Ottawa, last fall, and afterwards a public exhibition of its working was made in the vicinity of 26th street, Chicago, and other places, and in regard to which a cotemporary remarks:

"The manner in which this motor performed its work at all of these trials, drawing six plows through the rough prairie sod and walking off with them, submerged to the beams, with such speed and ease as clearly exhibited a large untold power in reserve, the ripping unhesitatingly through the hard, packed surface of a prairie roadway, the successful cross plowing, the walking ont npon and over the curbstones of the sidewalk, and the display generally of a propelling power on all occasions, equal to whatever test was required of it by most critical witnesses—these facts aroused our intense interest, and determined us to lay before the public, as a matter well worthy its knowledge, such of the future operations of this motor as should come within our notice. The immense traction obtained upon this principle forbids slipping, while the extensive ground surface, (fourteen inches by four feet, being 692 inches to each of the propelling feet) over which the weight of the motor is distributed, acting like snow shoes on the feet of the traveler as he passes over the newly fallen snow without allowing him to sink into the soft body below, will carry the motor over the soft soil, the yielding sand, or the broken surface, without sinking and without hardly leaving any tracks of its progress.

For the manufacture of this motor and plow an incorporated company has been formed, bearing the name of "The Northwestern Parvin Steam Motor Manufacturing Company." The company is formed of parties partly in Chicago and partly in Farmington, Fulton Co., Ill. The Directors are Robt. C. Parvin, Geo. W. Knox, Milton George and Albert Durham, of Chicago, and P. P. Chapman, Isaac N. Rafferty and I. J. Wilson, of Farmington.

The President of the company is R. C. Parvin, and Geo. W. Knox is Secretary. The principal office is located at Chicago, room 33, Otis Block, La Salle St., while the manufactory and local office is in Farmington. The company have purchased a fine brick manufactory 100x40 feet on the ground, and two stories in hight, with a fine large engine nearly new. They have also the use of a large foundry adjoining. The buildings are next to the railway track, thus affording every facility for shipment.

It thus appears that the farmers and others who are interested in this motor will soon have an opportunity to judge for themselves regarding its utility. The managers of this company and its stockholders, state that they have not gone into the matter blindly that they have tested the present engine thoroughly, and have full faith that it will, when improved in mechanical construction prove to be the coming steam plow and farm engine of the age. In this we join our fervent hopes, and wish them all success. The motor must be forthcoming, and if not Parvin's, then some other."

Cranberry Culture.

A cranberry field in Burlington county, Iowa, containing one hundred acres, has employed three hundred hands, who picked by the bushel, clean as they go, making good wages. Fifty acres picked over, yielded 7,000 bushels, four acres of which produced, what seemed to us enormous, 1,000 bushels. Twenty acres more gave only 3,000 bushels, and the remainder made up the quantity to over 7,000 bushels, yet the owners complain of the shortness of the crop. They hope, however, to improve their prospects by gathering from the remaining fifty acres 10,000 bushels more. They expect to sell all to one dealer at $4.00 per bushel.—*Practical Farmer.*

We present the foregoing as a kind of guide board to a speedy fortune, to any young man or old, who is willing to devote a few years to its accomplishment. Here we have fifty acres of land yielding over 7,000 bushels of cranberries, or 100 acres, yielding 17,000 bushels, which at $4.00 per bushel is $68,000 for one year's crop.

Now there are natural cranberry meadows in Northern California and Southern Oregon, of from 100 to 500 acres in a body, producing the inferior,—because small—wild or Oregon cranberry; but these meadows are as perfectly adapted to the growing of the Eastern berry as the wild, and could be converted into immensely productive fields of the improved berry by transplantation from the east.

These Oregon meadows are for the most part government lands, subject to entry at $1.25 per acre. Where is the young man with snap enough in his composition to take advantage of the position, exile himself measurably from society for about six years, devoting his time wholly to the one object and amass a fortune? Or, not wishing wholly to abandon the luxuries of civilization and society, procure just fifty acres of suitable soil for cranberry culture, anywhere in middle California, and convert the same from a condition perhaps of worthless waste, to that of a fortune yielding possession. See that you have the right kind of soil, and the means of certain and speedy irrigation with clear, fresh water, and then with proper cultivation success is certain.

THERE are 1,000,000 workmen engaged in iron manufacture in the United States.

CORRESPONDENCE.

Climate of San Joaquin Valley.

EDITORS PRESS:—A farmers steady work and busy thoughts in laying the foundation for another crop, have delayed the preparation of a report in full for 1872 of the temperature and rainfall of onr inland climate. But here it is at last, made out for twelve months on the plan adopted for the past year.

It is offered to the readers of the PRESS with some degree of that pleasure which we all experience in a work completed, even though such work be in itself but small and unimportant. It enables us to approximate for the first time, from actual observations for this part of San Joaquin Valley, the

Average and Range

Of temperature for the year, as well as for our Spring, Summer, Autumn and Winter. I say, to *approximate*, for we must remember that to arrive exactly at such general averages for any climate, requires similar observations to be accurately made, recorded, and calculated for at least ten years; indeed, it is almost the work of a life-time.

Such as it is, however, permit the hope, that it will not be a useless contribntion to aid some future worker in making out the meteorology of our State.

We have tried, by careful calculations, from at least a thousand observations made in the course of the year, at or near the hours indicated, to form an accurate and trustworthy

TABLE OF TEMPERATURE AND RAINFALL.

1872.	Average Temperature. 7 A.M.	2 P.M.	9 P.M.	M'thly Mean.	Hig'st Temp.	Low'st Temp.	Rain. Inche.
Jan.	40.20	52.30	46.15	46.21	61	27	2.38
Feb.	44.68	59.11	49.69	51.16	67	34	2.42
March.	46.16	63.60	50 40	53.38	70	36	1 45
April	48.21	66.40	50.80	55.13	77	36	0.97
May	56.45	78.39	58.65	64 49	90	40	0.00
June	64.57	86.86	65.25	72 23	110	52	0.18
July	68.23	92.48	71.15	77.28	104	61	0.00
August	69.68	91.72	71 95	77.78	110	59	0.04
Sept.	62 59	88.25	69 37	73.74	101	43	sprinkle
Oct.	50.57	77 19	57.25	61.67	94	38	sprinkle
Nov.	39.68	61.56	47.46	50.21	72	23	0.28
Dec.	36.74	56 77	41.57	45 02	63	10	4.70
Annual.	52.39	73.04	56,64	60.69	110	10	12.42

Our locality, as has already been mentioned in the PRESS, ia on the plains of Stanislaus County, midway between the Sierra and Coast Range mountains, and about half way between the Tuolumne and Merced rivers. As we are not far from the center of the great grain-producing region of the San Joaquin Valley, our climate may be correctly taken as a type of the climate of the entire valley.

Let na briefly discuss the observations, and record results. It is aeen that the table gives,

1at. The average temperature for each month at 7, 2 and 9 o'clock; also the monthly average.

2d. The average temperature for the year at the aame hours, as well as the annual average.

3d. The higheat and lowest temperature the thermometer indicated each month and for the year.

4th. The amount of rain in inches and hundredths for each month and for the year.

A Few Words of Explanation

About the manner in which these averagea were obtained.

For each month, all the observations at 7 A. M., were added and divided by the number of days on which the temperature at that hour was noted. The same was done for all the observations at 2 and 9 P. M. To obtain the monthly mean, these average temperatures for 7, 2 and 9 were added and divided by 3. For the year all the monthly means were added and divided by 12.

The rainfall for 1872, 12.42 inches, must not be confounded with that of the wet season of '71 and '72, which was about 16 inches; nor that of '72 and '73, which to date of writing is about 10 inchea. Also, our having no rain in May should be remembered as a very uncommon occurrence. Eight milea east of ns on the Merced, and forty miles aontheast along the Chowchilla, more than half an inch fell that month. We generally have as much or more. But in dry Springs, like the last, it is nsual for our rains to come in apots and streaks throughout the valley.

Two Points of Special Interest

In anch a table to which we wish to call attention, are the average and range of temperature for the year. As was mentioned in a previoua article, the decimals of temperature are needed only for accuracy in calculations and comparisons. For practical purposes they may be dropped, and if over one-half, the preceding degrees ahould be called one greater.

1. The average temperature at 7 A. M. is seen to be 52 degrees; at 2 P. M. 73; at 9 P. M. 57; and the

Annual Average, 61 Degrees.

The latter is the most important item in the entire table, as it gives the means of correct comparison with other climatea throughont the world.

By adding the averagea for the months composing each season, and dividing by 3, we obtain the following average temperatures: for Spring 58, or one degree above the average at 9 P. M. for the year; for Summer 76, or three degreea above the average at 5 P. M.; for Autumn 62, or one degree above the general average for the year; for Winter 47, or five degrees below the average at 7 A. M.

2. By range of temperature ia meant the difference between extremes of heat and cold. From the table, this can be obtained for each month and for the year. At present, we shall call attention only to the

Annual Range, 100 Degrees.

The highest temperature recorded is 110 in June and August; the lowest, 10 in December. This makes the range for the year 100 degrees, which is exactly the same as the range of temperature fonnd to exist in the central portion of the cotton States.

We had the coldest weather by six degrees last December that has been experienced on our plains for five winters past. The lowest previously observed was 16 degrees in Dec. '69. Last winter we had ice an inch thick. In one instance within the knowledge of the writer, the ice was so thick on a deep slough along the Merced river, as to enable a man of over 150 ponnds weight to walk across it without difficulty. The like has not been known in this part of California for many years. More than once the Coast Range Mountains were white with snow for several days at a time.

Even in portions of San Joaquin Valley during one storm a few flakes of snow fell. This is a great rarity. Occasionally we have had a small amonnt of fine hail. As 1872 has been rather a cool year, its average temperature of 60.69, or 61 degrees. will probably be proved by fntnre observations to be somewhat lower than the general annual temperature of our climate. It is, however, such a medium temperature as we would reasonably expect between the mean temperature at Sacramento to the northward which is given as 59.90 and San Diego toward the south, which is 62 degrees. By comparing our California temperatures with remote localities in various parts of the world, we arrive at the following

General Results.

While the mean temperature of San Francisco is nearest to that of Bordeaux, France, Pekin, China, and New York, that of our inland valleys, and Southern California is almost identical with that of Southern France, Central Italy and Southern Japan. To the latter we might also add the Holy Land and that portion of the Southern States along the valley of the Tennessee, in North Alabama, around Huntsville and Tuscumbia, when the average annual temperatnre is not far from 61 degreea.

The following table will show more plainly wherein these climatea agree, and how they differ.

TEMPERATURE OF VARIOUS LOCALITIES.

PLACES.	MEAN TEMPR'RE Of yr	Wntr	Sm'r	Range bet. W. and S.	Latitude North.
San Francisco	55.85	50.59	58.97	8 deg.	37 deg. 47 m.
Bordeaux	56.48	42.08	70.88	29 deg.	44 deg. 50 m.
Pekin	54.86	26.42	82.58	56 deg.	39 deg. 54 m.
New York	53.78	29.84	79.16	49 deg.	40 deg. 40 m.
Sacramento	59.90	48.46	70 77	22 deg.	38 deg. 32 m.
S. Joaquin Valley	60.69	47.46	75.75	28 deg.	37 (about)
San Diego	62.00	?	?	?	33 (about)
Rome	60.44	45.86	75.20	29 deg.	41 deg. 53 m.
Marseilles	58.00	45.50	72.50	27 deg.	43 deg. 17 m.
Nagasaki	60.80	39.38	82.94	44 deg.	32 deg. 45 m.

The column for range, or difference, between the summer and winter of respective climates has been estimated in the table to show, that though the annual temperatnre of various placea may agree closely, their differences between extremes of heat and cold may vary greatly. Indeed, this is the chief mark of distinction between climatea. The range between summer and winter averages in San Francisco is

Only Eight Degrees,

Which makea it as an equable climate, one of the most wonderful in the world. In our inland valleys, in Bordeaux and in Rome, the range is three times as great; in Japan five times, in New York six times, and in Pekin seven timea as great.

The most atriking agreement we find is between our temperatnre in San Joaquin Valley and that of Rome. Both the averages and range are almost identical. The remarkable similarity between the climatea of parts of California and Italy, which has been ao often aaserted, ia not then a dream, but is proved to mathematical certainty by the stubborn logic of facts.

J. W. A. WRIGHT.

Turlock, Stanislaus Co.

Guenoc Rancho.

EDITORA RURAL:—We have had a steady rain aince yesterday noon; no one now doubts a full crop on early and late aown land. Much land haa been summer fallowed this spring (something unheard of in Lake,) but the ground was in auch condition, and besides we were scared, though we never have failed.

The big frost cut the grain some and nipped aome early gardens, but hurt no fruit however; (there is not a bearing orchard in the Valley, we are only starting.) Friend J. M. Hamilton of Guenoc P. O., atill has a 1,000 acres unsold of the grant, $10 per acre on time, which by-the-by, I guess is within bounds, for out of 29,000 disposed of to different parties, all are contented.

Every one expects to have his farm fenced this year, and why not? Two saw milla; lumber $16 and pickets at $10 per M. Sheep shearing is in full blast and grass "till ye can't rest." Remembering yonr article last week on "Send us Commnications," I have gone out of my uaual line, ao pick out anything new and let it be anonymous for I am not

AMBITIOUS.

Lake Co., April 20th.

And yet it is just the kind of ambition that we would like to aee repeated and imitated. ED.

Los Angeles.

EDITORS RURAL PRESS:—That Vandalism is to be deprecated—there is no question—yet is there any greater vandal than the lover of gold? Simply that there was a remote chance of the orange bringing a few more dollars than the walnut, I see a man in Los Angeles has dug up bearing walnuts to replace with orange that he probably will not live to see fruit, and even if he does, they may not be of any more value then, than the walnut.

This blind subserviancy to gain mnst be overcome in some way to obtain any real progression, and it is refreshing to know that cases like the above are rare even in these mammonserving days.

Sitting this beautiful April morning under the shade of the orange groves of this thrice blessed City of Angeles, it is a matter of considerable doubt after all, whether the real estate owners over do, or overdraw in their laudation of our climate and other advantages; for yonr correspondent wonld consider it preferable to be permitted to camp out nnder a booth made of rnshes or willows, in this vicinity, to having a fee simple to the finest estate known east of the Rocky Morntains, with the compulsory condition that he should live there.

Is it any wonder, then, that we linger lovingly in a land where it is esteemed a privilege to inhale the air and listen to the mnsic of the birds, to sleep nnder the broad canopy of heaven. and to own no leagues, no acres, no feet, and have no cares—to enjoy a calm and dreamless repose, and awake every morning to new life, simply becanse we have learned to be content with the plainest fare and with the smallest proportion of what the world calls wealth? All this we have learned in this "ennervating atmosphere" where the Englishman complains that he cannot consnme his regular allowance of beef and ale, and probably the Aleut wonld pine for his walrus oil; neverthelesa we discover no lack of vitality or of disposition to work in onrselves, for the reason that the system is not overburdened with unnecessary elements, and we are content to let each day have ita own labors, instead of trying to crowd two or three days' work into one, as was onr cuatom for thirty years, and as is the usage of today, with many.

The woolen mill is manufacturing at last, and those most hopeful here see in it the pioneer of a class of industries that we mnst rely upon to meet the enormous taxation which the obligations already assumed will eventually bring.

We are ready to admit that everybody cannot live in Los Angeles, nor yet in California, but there is so much unoccupied land here yet that I look upon the resources of this coast as hardly touched.

Why, there is enough space in Los Angeles county to build a powerful empire when once the elements are brought into use.

But that under the present regime anything of the kind ia possible, we do not contend. Some of the barriers that lay in the way of progress will be required to be removed, and that ia being done in a quiet way—time is the great leveler—and all in good time will we aee this goodly land freed from every thralldom.

The late frosts and dry north winds have done considerable damage, but not as much as was at first supposed. There will be a fair crop of grapea and most other fruits, also of grain. Rye is a hardy grain and is doing better in thia county than any bread producing cereal yet tried; there is an unusual proportion of this grain planted here this year, and it all looks well.

Farmera' clubs are being organized everywhere that there are enough within reach of any point of meeting, and the effect ia good.

Aa the prospects for more rain are becoming leas every day it ia now more than ever apparent that to be sure of any crop here the farmer must be prepared to sow at or before the first rains, and the same with the planting of the majority of the vineyards that are now being put out in this aouthern county.

The husbanding of the water in reservoirs which would otherwise be lost ia commanding attention, as we ace the Santa Anita ownera are bnilding several cement receptacles for their water in order to make it reach the very large tract of land they wish to cultivate in orangea, limes and that class of fruits that do not do as well nearer the ocean. By the way, this Santa Anita Rancho is about central in relation to the strip of land along the base of the high range pecnliarly suited to orange culture here. This zone may be aaid to be bounded by the Arroyo Seco on the north and weat and by the Coco Mongo on the aonth and east, say 25 milcs in length by a mile in width. The frnit produced in this belt is every way superior to any other in the county, and somewhere in this belt will be located the Sanitary Hotel and Indnstrial College of Southern California.

This institution ia now in a fair way of being erected upon a scale commensurate with the importance of the objects it proposea to further; which is the art of preserving health and of improving and encouraging all indnstrial occupations especially Horticnlture.

This branch will receive the attention it deserves in its bearing upon the prolonging of human life and the making of it more enjoyable while it lasts.

F. M. SHAW

Los Angeles, April 20, 1873.

Paradise Valley, Stanislaus County.

EDITORS PRESS:—Thinking a few lines from this locality may interest you, let me give a very brief notice of our thriving young city of Modesto, sitnated on the east side of the railroad, near the Tuolumne river, and surrounded by as fine a conntry of prairie land as California contains. The farming lands extend east to the foothills, some twenty miles, and west about the same distance, and from the Tuolumne river to the Stanislaus river, a width of from ten to fifteen miles.

This it will be seen, is farming country enough to push Modesto right along in prosperity and thrift. We have already two churches and a Conrt House that is a credit to the connty. We have a population of 600 to a thousand, intelligent and wide awake citizens, who will make things roll right along; the outlook for the future is therefore flattering. More than a year ago I received my first copy of the RURAL PRESS, from Mr. I. McKewin, a leading merchant of Modesto, and it contains weekly so many good things, I could hardly get along without it.

And then your Elastic Newspaper File Holder and Binder I am well pleased with, as it enables me to make almost a perfect book of the RURAL PRESS, handy for perusal at all times. The farmers here are rallying for self-protection and co-operation, and hope to bring about good results. The Stanislaus *News* and the RURAL PRESS, for the interest they have taken in the reform movement, should receive the hearty support of every farmer in Stanislaus connty. OCCASIONAL.

April 16, 1873.

Napa County.

EDITORS PRESS:—Some people only open their mouths to give expresaion to things unpleasant. I do not wish to be classed with these, because my first attempt at letter writing for the RURAL is the bearer of bad news.

We were the first to sow our summer fallow last fall, and having the good fortnne to have exceedingly fertile landa, even for Berryessa, it sprang up, and gave promise of a tremendous yield. It waa so rank that nearly the whole fell down before the second joint was formed. The frost or freeze of the 4th inst. was the most aevere I ever witneased west of the Missouri river, when vegetation was ao far advanced. The field spoken of contains 140 acres. Abont two-thirds of the piece will not make aeed; in fact I think it would be difficult to find a handfnl of green bladea on 90 acres. It is no longer wheat, but a dreary looking prospect of sombre bladea on the ground, and blasted leavea over head.

Locnst, oak and ash timber fared as did the more tender blne gum, apricot and almond; all are atripped of leaves aa if the destroying angel had taken particular vengeance on the yonng leavea. Any one can imagine the prospect in the vegetable gardens, when lettnce, peaa and turnips were "wiped from the face of the ground." A dreary proapect indeed for the loveliest of California'a lovely valleys.

SAVAGE.

Berryessa Valley, April 17th.

We hope onr correspondent will keep ns posted from time to time of the condition of crops, etc.—ED.

Coffee at Costa Rica.

EDITORS PRESS:—You will confer a favor upon several of your subscribera by answering throngh the columna of your valuable paper the following questions: 1at. Can Coffee plantations be rented in Costa Rica? If so, how much rent? 2d. Can Coffee plantations be bought there? If so, what are they worth? 3d. How is land obtainod there? Are the titles good for American citizens? 4th. How old does the coffee tree have to be before it bears enough to pay? 5th. Are there any chances to work plantationa on shares? 6th. Is there any trouble obtaining labor? 7th. What is labor worth? 8th. What is the expense of raising a ponnd of coffee there? What will it bring at the nearest shipping point? 9th. Is the climate healthy? 10th. Ia there any better place to go into that business? 11th. Doea Brazil offer any inducementa for aettlera? COFFEE.

We give place to the foregoing hoping that some one or more of our numerous readera can furnish the information, which we are frank to say, we have not at hand.—ED.

From Fresno County.

EDITORS PRESS:—I noticed an article in the RURAL PRESS of March 29th, entitled "Aid to Immigration," and which just meets my views on the snbject. I have received five letters from different parties residing in the Atlantic States, asking for information in regard to climate, soil, productiona and temperature of California, with a view to aettling here with their families. It would be impossible for me to answer all inqniriea in detail, and if you wonld aend me five or aix copies of the RURAL of late dates I will forward them immediately. One specimen of yonr paper will give more information in regard to the varied industries of this Coast and their progreas, than all the letters I could write. I am very much pleased with the PRESS, and do not know how I conld do without it. C. M. P.

Miscellaneous.

The Spectroscope and the Stars.

The fourth of the series of lectures on the spectroscope, in course of delivery by Prof. Neri at the hall of St. Ignatius college, was listened to by a large and attentive audience, and illustrated by numerous beautiful and instructive experiments by means of diagrams projected on a screen by the electric light.

The previous lectures having fully explained the principles and powers of this new and wonderful instrument, the present one was devoted to a consideration of its application and results to solar chemistry.

What the Spectroscope Tells us of the Sun and Stars.

Heretofore man's only knowledge of the character of the heavenly bodies has been derived from falling meteors; but the testimony which they bring is very uncertain. But the spectroscope, besides revealing an intimate knowledge of the character and composition of terrestrial substances, has also been found competent to reveal the character, elements and physical constitution of all heavenly bodies, which emit light sufficient to render them visible by means of any astronomical instrument. That there is no mistake about this—that the spectroscope is no uncertain teacher—was distinctly shown by a series of interesting and thoroughly convincing experiments and demonstrations.

In addition to receiving and taking in the light of the sun, it also seizes upon the smallest ray of light, from the dimmest star, comet or nebula, and, by a peculiar arrangement of prisms, disposes or spreads out that ray so as to bring it within ready examination, and separates its light into a spectrum of prismatic colors; and if that ray is from a highly heated vapor or an incandescent body giving out highly heated vapors, it projects upon that spectrum, as a back ground, certain dark or bright lines, or bands, as they are sometimes called, which lines determine the character and constitution of the body under examination,—one or more lines appearing in a certain position for every different element whose light is thrown upon the spectrum.

If the spectrum we obtain is a *continuous* one, merely spread out like the colors of the rainbow and without any bright or dark lines across it, we know that the body emitting the light is either an incandescent solid or liquid one, and not a body of incandescent vapor or even one giving off such vapor.

If *bright* lines appear across the spectrum we know that the body is composed of highly heated vapor, and that the lines (according to their places on the spectrum) represent some given element.

If instead of bright we have *dark* lines, we know that we are examining a body capable of absorbing certain rays of light, thus giving rise to what is called an *absorption* spectrum—the dark lines being simply shadows of the various elements which they represent.

The different characters of the spectra thus determine certain general characteristics of the bodies submitted to their test. The bright lines upon the spectra tell us, by their numbers, position, ralative brightness and color, how many different substances or elements there are in a luminous body we are examining. By comparing these lines with the spectra which we obtain from earthly elements, we are able to name them as far as they correspond.

Of earthly elements found in the snn we have already discovered iron, titanium, calcium, magnesium, nickel, cobalt, chromium, barium, sodium, copper, zinc, hydrogen, in large quantities, aluminum, seleninm, cæsium, strontium, and probably iridium.

No indications have yet been found of gold, silver, mercury, platinum, lead or tin in the sun.

In speaking of the lines or bands upon the spectrum, the term "band" is generally employed, when reference is made to those which are *bright*, and the term "lines" in reference to those which are dark.

In examining the spectrum of the sun we see both dark *lines* and bright *bands*. Some 3,000 of the former, besides many of the latter are observed upon the solar spectrum; but we are not to infer from that fact that there are so large a number of different elements in the sun; for a single element often gives several bands or lines, as the case may be. For instance—iron gives some 600 lines, all of which are due to that single element.

The study of these lines and bands upon the various spectra is far from being completed. Many lines which at first were supposed to be single, by improved instruments are now found to be double, and often a large number of very small lines is found to make up what was once supposed to be one very broad line.

A Mystery.

When we examine metals or other elements in the laboratory, by means of the spectroscope, we invariably obtain *bright* lines on the spectrum. Those lines always occupy a certain place, never varying their position. Thus by a series of experiments, the place on the spectrum for the lines of each of the different elements has been definitely fixed, no one ever interfering with or occupying the place of another. These facts were learned early in the history of the spectroscope.

Subsequently, when Frauenhoffer turned his spectroscope to the sun, and began to examine the solar spectrum, he found a large number of *dark* lines. He at once commenced a study of those lines—what were they? Conld they be the lines of earthly elements? No, for *they* were *dark*; while the lines of the earthly elements, as examined in the laboratory, were *bright*. Further examination, however, showed that many of these dark lines corresponded exactly with the bright lines of the metals. Still another mystery! How was this? Here was a mystery indeed. Was the spectroscope, after all, to teach us only an uncertain lesson?

Scientists in continuing the studies of these lines, discovered that it was impossible to pass through an incandescent vapor of any substance, the rays of light which that substance is capable of emitting. If now we employ the spectroscope to project the spectrum of sodium, on a screen, with the sodium flame or vapor intervening, we shall have a *black band* on the spectrum in the place of the bright sodium line, which the sodium flame alone would give—this black line being in reality a shadow cast by the incandescent sodium, in the white light which we are analysing, in consequence of its passage through the sodium vapors in the flame.

This discovery made by Fraunenhoffer proved one of the most important in connection with the history of this instrument—for continued and multiplied experiments in this direction finally led to a full explanation of the

Mystery of the Dark Lines on the Solar Spectrum

And proved that those dark lines represented elements corresponding to the bright lines observed in the laboratory. The lines of the different elements appeared dark, when coming from the sun, because its light had to pass through the incandescent vapors, of such elements, thus projecting a shadow instead of a bright line upon the spectrum. Thenceforward man has possessed an instrument as sure in its results of the analysis of the sun or any other heavenly body, as is the crucible or other instruments applied to ordinary analysis in the laboratory.

In illustration of the phenomena of absorption, whereby the dark lines are made to appear on the solar spectrnm, the Professor gave some very interesting experiments showing the

Philosophy of Different Colors in Glass,

Or other media through which light can but imperfectly pass.

A red glass intercepted all but the red rays; a yellow all but the yellow rays, etc. This was proven by first throwing a spectrum of all the rays from a luminous substance upon the screen, and then throwing upon the screen only such rays from the same substance as would pass through a red or yellow glass. In the latter case the spectrum of such transmitted light would show, strongly, only the light corresponding to the color of the glass, or other media, with a very small amount of some complementary color, the transmission of which was due simply to imperfections in the coloring matter of the glass. This experiment shows that colored glass does not *color* the rays of the sun, but merely stops all but the rays corresponding to the color of the glass employed.

This, like each of the previous lectnres, was illustrated by numerous experiments and diagrams thrown upon the screen by means of the electric light, and added largely to the interest of what was said, by making almost everything perfectly comprehensible to the eye as well as the understanding. The necessary absence of such diagrams from onr report will not admit of anything like justice being done to the subject or the lecture. Professor Neri is peculiarly happy in his manner of treating a scientific subject before a mixed audience; which fact, with the extensive philosophical apparatus, at his command, enables him to keep up the interest of his hearers, make everything clear and well understood, and withal present a most enjoyable treat of what is usually, on such occasions, a dry and uninteresting detail of philosophical facts. The fifth and concluding lecture of the season was given on Thursday evening, 24th ult.

A New Grate has recently been patented in England, which consists of an ordinary fire grate, with bars in front, and back and sides of fire clay; the whole is slung upon pivots, so that it may be rotated in the same way as a grindstone is, the angle of rotation being perpendicular to the back of the grate or chimney. Small grates, forming segments of a circle, are placed on the bottom and top, and these are so arranged that while the bottom grate is kept fixed, that on the top can be removed to admit of a fresh supply of fuel, so that when desired the fire can be turned topsy-turvy to allow of a free and perfect combustion of the fuel. The result is that the gas from the fresh fuel, in passing through the red-hot coals above, gets perfectly consumed, a good bright fire is obtained, and little or no smoke is left to escape np the chimney, as the combustion is as nearly perfect as possible. It is said that this grate effects a saving of at least 20 per cent. Dr. Franklin invented a grate on the same principle as the one above described, but why it never came into general use we cannot say. The theory seems to be sound.—*Am. Manufacturer.*

As an evidence of the practical progress which science is making there will be shown at the Vienna Exposition a special department for the display of useful products, made from what was the waste material of manufactories at the time of the London Exhibition of 1851.

Corporations Under the New California Code.

[Written at the request of the publishers, by J. M. Haven, Esq., of S. F.]

We call the attention of the readers of this journal to the provisions of the Code relating to the formation of Corporations. There are few subjects of more interest to business men than that of Corporations. Scarcely a day passes that some new corporation is not formed for the prosecution of manufacturing, mining, or trading. The tendency of the times is to an increase in the number of, and in extension of the objects to be secured by corporations; and it is almost a necessity for every business man to acquaint himself with the laws controlling the birth and life of these artificial members of society.

The object of the Code is to provide for the formation of corporations for every conceivable business, and also to more clearly define their procedure, powers, rights and responsibilities. Section 286 enumerates twenty-seven different specific objects and classes of objects for which corporations may be organized. One of these subdivisions—No. 13—is sufficiently comprehensive to embrace any business not specifically provided for in some other subdivision. It provides for: "Manufacturing, mining, mercantile, mechanical, wharfing, docking, or chemical purposes, or for engaging in any other species of trade, business or commerce." Under the former law a corporation was formed by the signing and acknowledgment of a "Certificate of Incorporation," by at least a certain number of persons which varied according to the purpose designated, from three to twenty, and the filing of this certificate with the clerk of the county in which was located the principal place of bnsiness of the corporation, and a certified copy with the Secretary of State.

Under the Code, "Articles of Incorporation" must be prepared, setting forth: The name of the corporation; the purposes for which it is formed; the place where its principal business is to be transacted; the term for which it is to exist, not exceeding fifty years; the number of its Directors or Trustees, and the names and residences of those who are appointed for the first year; the amount of capital stock and the number of shares into which it is divided; the amount actually subscribed, and by whom. The articles must be subscribed by five or more persons, three of whom must be citizens of this State, and must be acknowledged by the subscribers before some officer authorized to take and certify acknowledgments of grants of real property.

Upon the filing of the articles of incorporation in the office of the County Clerk of the county in which the business of the company is to be transacted, and a copy thereof with the Secretary of State, the Secretary of State must issue to the corporation over the great seal of the State, a certificate that such articles, containing the required statement of facts, have been filed in his office; and thereafter the persons signing the same, and their associates and assigns, are a body politic and corporate, by the name stated in the certificate, and for the term of fifty years, unless it is in the articles of incorporation otherwise stated.

Every corporation must hold a meeting within one month after the articles of incorporation are filed, at which shall be adopted a code of by-laws for its government, which shall not be inconsistent with the Constitution and laws of this State. The by-laws when adopted, must be certified by the officers of the corporation, and filed and recorded in the Recorder's office of the county where the principal place of business of the corporation is located. Amendments to the by-laws can only be adopted by a two-thirds vote of the stockholders; and the amendments must be certified and recorded in the same manner as the original by-laws.

Science and the Trades.—It was one of Coleridge's most pregnant sayings that "every true Science bears in itself the germ of a cognate profession, and the more trades are elevated into professions the better." In France this truth has been for many years appreciated, and to this we believe the success of French enterprise in Italy and Spain is largely attributable. Anyone who considers on the one hand, the overcrowded state of our learned professions, and on the other, the abundant room for scientific ability in numerous branches of manufacture and production, can hardly deny that a great waste of English intellect might be saved, and that an immense addition to our national resources might be effected by the elevation on the shoulders of science of various common occupations into skillful professions. We must, moreover, include in the waste of intellect all the ingenuity which debases trades by alliance with adulteration and counterfeit production.—*Saturday Review.*

Increase of Iron Works in 1872.—The increase of the iron industry in this country during the past few years has been unprecedentedly large. Reports for 1872 show that 107 new furnaces were built, and 39 projected, and 36 new rolling mills built and 12 projected—making in all an addition of 194 new works. At the date of the above report there were five Bessemer works in operation in the country and four new ones projected.

Brain and Thought.

To regard thought as a secretion is reducing mentality, affection, reasoning, soul, spirit, or whatever there is of us distinct from the material organization that perishes, to a mere process, or circumstance, that has no absolute existence in and of itself, but is merely a transient manifestation of matter, as is said of nascent oxygen being ozone, of electricity being a mode of motion.

To say that mind is a property, or the effect of organization, is to reverse the order of nature. Mind is the cause of organization. Bodies do not create mind but mind creates them. The house does not make the tenant, bnt the person constructs the habitation. Nothing can form or produce anything superior to itself; effects can never be greater than their causes; nor can matter originate or produce anything different from matter; and as mind is entirely different from matter, in all of its laws, qualities, and manifestations, it follows that it has an existence independent of matter.

The secretions of the human organism are certain fluids to be used in its formative proceses, as saliva, gastric juice, etc. Thought is no more like saliva or gastric juice than it is like a potato or a pumpkin. It is no more like bile than it is like a rotten apple or decayed cabbage.

What is thought! Thought is mental recognition. When the mind, through its general organ, the brain, and through its special instrumentalities, the five senses, takes cognizance of an object or thing, that recognition is a thought, a perception, an idea, a fact. Secretions and excretions only relate to the vital processes. Thought relates to external objects and other beings. A recognition of several objects or things constitutes thinking; a recognition of their relations to each other is the mental process of comparison; and a recognition of the principles into which the facts or data of knowledge (thoughts) may be arranged is the mental operation of reasoning. If thonght is a secretion so is feeling, and so are all mental phenomena; and the great mysterious "ego" of the metaphysicians is nothing but a molecular transformation, or a chemical decomposition. How are thoughts and feelings, on the theory of secretion, communicated from one person to another? Secretions, as all physicians know, can not be transferred from one person to another. How about loving, hating, opinions, education, etc? Are they, too, secretions? And how about dreams, somnambulism, clairvoyance, judgment, will, memory, conscience? Are these secretions?—*Dr. R. T. Trall.*

Effects of a Dry Cold Winter. — Prof. Shaler has a communication in one of our scientific periodicals of the winter of 1871-2—one of the driest and also one of the coldest on record. The snow-fall was light, and the ground froze to almost an unprecedented depth. being sufficient throughout the whole of New England to involve the roots of the vegetation and the forests. The tree which suffered most was the arbor-vitæ, more than half of these having died, and the rest being in a critical condition. The red cedar was likewise a great sufferer, as also the yellow and white pines; indeed, all the coniferæ in New England have been injured to a greater or less degree. The greatest damage was experienced in sandy soils. The only change experienced in animal life noticed by Prof. Shaler is the comparative scarcity of snakes, which he considers to be a very decided feature. The Professor contends that a slight addition to the degree of the drouth and the cold might have made such ravages with our forests as to have modified the climate and brought about a series of changes as great as those which mark the different geological formations of the past.

Automatic Telegraphy.—It is announced that this new system of telegraphy is now finished and in successful operation. By this system it is claimed that fifteen hundred words per minute, in clear characters, can be sent between Washington and New York, a wire circuit of three hundred miles; and that, by the use of a certain kind of automatic repeaters, messages can be sent any number of thousands of miles at the rate of six hundred words per minute. The matter to be sent by this new system is prepared by means of perforating machines, the use of which can be easily learned by any person of ordinary intelligence in ten day's time. These perforating machines can turn out the messages, ready for automatic transmission, at the rate of from one hundred to one hundred and forty words a minute. If the system will really do what is claimed for it, it is second only in importance to the telegraph itself.

Forests and Rainfall—A New Theory.—Experiments made by Von Pettenkofer on the amount of water evaporated from an oak tree, show that atmospheric humidity, in so far as it depends upon the presence of forests, is promoted rather by the roots of trees drawing moisture from the earth, than by any attraction exercised on rain clouds by the leaves. The latter serve rather as outlets through which the moisture drawn from the soil passes into the air. The oak tree observed by Pettenkofer was estimated to have 751,592 leaves, and the total amount of evaporation in a year was computed to be 8⅓ times more than that of the rainfall on an area equal to that covered by the tree, the moisture exhaled by the leaves being equal to 211¼ inches, while that from rainfall was but 25⅓ inches.

Farmers in Council.

San Jose Farmer's Club.

Club met April 19th, President Cssey prcsiding.

Mr. Berglsnd wanted a report from the delegates to the late State Farmer's Union.

Mr. Herring said thst the Club was unrepresented at that meeting.

The Secretary said that a member had reported to the Clnh through him that he had left with a certain flouring mill 402 ponnds of wheat, and received in return only 389 pounds. He also left at the same mill 232 pounds of wheat to he cracked, and only 198 pounds cracked were returned to him. He wanted to know if this reduction was legitimste, he paying for the grinding.

Mr. Woodhams stated that he had left at a certain mill 2,000 po·nds of wheat, and had returned to him only 1,800 lbs. of flour. He thonght it was chcaper to sell whest and buy flour.

Mr. Ware having come in, msde his excuse for not attending the meeting of the Stste Union, and said that there being five delegates beside himself, the Club should not have been unrepresented

The President atsted that the delegatcs had told him that they did not think that they could be admitted until the dues were paid.

Mr. Ware said the dnea were only to be paid at annnal meetings. He thought also that officers of the Union could only be elected at annual meetings, hut he saw this had heen done at the late meeting. He called for the reading of the Constitntion to prove this statement.

On motion, the members of the Clnh were requested to psy twenty-five cents each for State Union dues.

Under the call for questions and answers, Mr. Csdwell wanted to know what action was taken in regard to forming a Grange of the

Patrons of Husbandry.

The Secretary replied that the committee hsd reported favorably to the project.

Mr. Holloway said that he cut off a specimen of barley from his farm, which he presented to the Club and wanted to know when to cut it for hay.

Mr. Cottle said the sooner it was cut the more it was worth per pound, even if it is not six inches high.

Mr. Ware would cut barley in the milk, and wheat in the dough.

Mr. Duboise wanted to know what kind of corn and squashes are best to plsnt in this connty.

Mr. Cadwell said he had sent to Illinois for Squaw corn, which he tried with success in this valley. It makes good table corn, is good for meal, yields large quantities of superior fodder, is better for stock to eat, and matures while the moisture is still in the grouud.

Mr. Duhoise also wanted to know where he could get seed of the large kind of squash.

He waa informed that Mr. Tarleton could accommodate him.

Crops for Small Farms.

The question for discussion wss, "What are the best and most economical crops for home consumption, and the best method of producing the samc on the small farms of this valley."

Mr. Ware said that he would say the best crops to raise are the ones we are already raising. The common sense of the people had been tested for the last fourteen or fifteen years, and he was willing to take the resnlt. He opposed the raising of only a single article. He thought there should be a diversity of cropping. Everything there is a market demand for shonld bc raised to some extent. It is more profitable for the fsrmer and hetter for his soil.

Mr. Cottle said that this country is not generally adapted to a diversity of crops, and he did not think that a mau, on the ordinarily dry soil of this valley, could raise many of the various productions with profit to himself. He believed with Mr. Ware, that 15 years experience ought to have tanght farmers what they can raise to the hest sdvantage. Many vegetables and fruits cannot be rsised without irrigation, and the water would cost more than the profit.

Mr. Herring thought hogs and blooded stock would be more profitable than selling the graiu.

Mr. Cottle ssid thst he did not believe that meat could be raised profitably on land that is worth $100 per acre, in competition with our free pastures.

Mr. Bergland thought a man with a farm of 100 or 160 acres, shonld try to raise a little of everything— especially what he wants for home consumption—even to his own beef and pork. He did not like to see farmers coming to town to bny vegetables.

Profils of Small Farms.

Mr. Duboise said we could not make farming in California like farming in the East and Europe. He did not think a man could make anything on a small farm. He bclieved in rotation ot crops hut not in diversity of crops. One objection was that it took too many fields, and fencing is too high for that. He thought the true policy of farming in this country had been already discovered. As for home consumption, he did'nt care anything about that but he helieved the true policy is to raise produce for export.

Mr. Cadwell protested against this idea of big farms. When we pay the value of these large crops to get them to foreign markets, it seems as though there shonld be something thst could be raised to obviate this expense. A man should at least raise what he wants to use in his own family.

Under the present system, men raise large crops, hut they pay for everything they eat and wear, and when they get through the year they have no more left than the small farmer who farms for a living and sells the snrplus. He hsd tried small farming in this valley, and on four acres he had raised the living for his family, and had about $200 worth to sell besides. His place is new, with the fruit scarcely yet beginning to bear. Next year he expected to double the surplns.

Mr. Woodhams said he had heen in this country twenty-two years, and he thought the project for raising a diversity of crops to be ridiculous unless our climate and seasons are changed.—*Mercury.*

Contra Costa County Farmers' Club.

The Club met at Pacheco, April 19, President Jones presiding.

The delegates of the Club to the rccent meeting of the State Farmers' Union being called upon to report what action of interest had bcen taken there:

Mr. Fish—Said it hsd not been made the duty of any one in particular to prepare a report and he presnmed no delegate had a stated report to make. He remarked, there had been some disappointment that the Executive Boar.l of the State Union hsd matured no measures or propositions for the action of the recent meeting; but something waa done through one of the committees in the way of securing the refnsal of a limited supply of machine made, standard size sacks, at a cost of ahout 14¾ cents each.

Mr. Gregory—In further arrangements forobtaining sacks, said it had heen agreed by an importing house in the city to supply the orders of the committee of the Union for hnrlaps, reccived up to a certain date, at 13 centa per yard, and the making would bring the cost at about the price named per sack to contain from 130 to 140 pounds of wheat.

Mr. Porter—Referred to the proposal of the State Uniou to organize a crop report agency or bureau, for collecting and publishing information respecting the crops and markets of the world.

Mr. Fish—Said the plan entertained by the Union would involve some expense which it was proposed to provide for by a monthly contributiou of ten cents hy each member of the affiliated clubs of the State and of the United States; snd it was further proposed that each club should appoint a crop reporter for its district who should ascertain the acreage of the varions crops and make periodical reports of their condition to the Secretary of the State Buresu.

Mr. Gregory—Thought it would be advisable to have a general clnb reporter, with an assistant, or correspondent in each School District, who should give him weekly information.

Mr. Loucks—The Corresponding Secretsry, stated that he had communicated with Profsasor Carr, as directed by the club, with regard to the best solvent for strychninc, and he had recommended acetic acid as the hest agent he could think of, bnt, as he had not had his attention before called to the mstter he would take further time for considering it hefore final answer.

Mr. Gregory—Said there was much earnest discuasion at the meeting of the Union respecting effective organizatiou of the farming classes for social and business objects, and the institution of Granges of the Patrons of Husbandry had been favorably considered, and recommended,

Mr. Porter—Thought the successful organization of Granges would require much careful study and preparation on the part of those in esch neighborhood who shonld undertake the work. The ritual and work of the Order so far as he hsd gathered from what was made public, was very interesting and attractive; but the Grange work required a membership and attendance of both sexes, otherwise its charm was not secured. He doubted if our population was large aud conveniently euough located, to insure the best results of the Grange system as a means of social culture and recreation; and for business purposea it could not embrsce all whom it would be uecessary to unite in co-operative effort, because of the objections entertsiued by many to nnite with secret societies. The National Farmers' Congress, isa large and influential organization in the Eastern, Southern and Westeru States, for purely indnatrial and business objects, and in the reports of their meetings we find complaints that the Patrons of Husbandry cannot do effectively the work they have undertaken which is beyond the range of the social work for which the Order was instituted.

Mr. Loucks—Stated that Prof. Carr, in consequence of pending engagements, would be nnable to address the club at its next regular meeting on Saturday the 3d of May; but would do so at some earlier day when other engagementahad been filled.

Mr. Porter—In accordance with notice given at a previous meeting moved the levy of a fifty cent asseasment upon the membership of the club; and the motion was adopted.

It was on motion ordered that a monthly due of ten cents be required of each member for the crop report fund of the State Union and that the Treasurer of the clnb be authorized to remit the amount of one month,s dues at once to the State Board.

Mr. Gregory—Referred to a rotary drill for sowing grain which he described, hnt had not heen able to ascertain the results of its use.

Mr. Porter—Referred to an article published in the *Gazette* of the previous week, from the *California Agriculturist*, upon the methods of cultnre best calculated to make the moistnre in the earth available for the growth of crops by the law of capillary attraction, as one of the most interesting and valnable articles for the California farmer that he had met with. The culture recommended by the writer being designed to allow the water to come up to the plant roots for their snstenance, and to prevent its getting to the surface to he evaporated, hy keeping an inch or two of surface earth so loose and open thst it will not serve as a capillary coductor. He thought every man would discover the correct philosophy of the article on careful reading, and find it corroberated by his own observation and judgment.

Mr. Fish—Moved the election of Mr. Porter as crop reporter for the clnh with authority to select as many assistants or correspondents in the county as he might desire.

Mr. Porter—Did uot wish to decline any duty but thought Mr. Fish much better qualified for the office than himself, and proposed that he should be elected.

Mr. Fish—Said he must absolutely decline. Mr. Porter then said he would do the best he could if it was insisted on; bnt with the condition that the gentleman present should aid him in procnring the information to be reported, and on this understanding he was elected crop reporter for the club.

Mr. Fish—Moved that the Corresponding Secretary be directed to apply to Professor Thomss Price for information respecting the best agent to employ as a solvent for strychnine in the preparation of squirrel poison. The motion was adopted.

The Secretary reported receipts of dues paid st the meeting, amounting to $9.85.

The club then adjonrned to day of regular monthly meeting, Saturday, May 3d, at Odd Fellows' Hall, Pacheco.—*Gazette.*

Stanislaus County Farmers' Club.

Club met April 19th, Mr. L. Dickey presiding.

Committee on Freighta and Farea reported that they were not ready to act.

By permission the report of the Committee on the organization of the order of Granges, was passed to the discussion of the question of the day. Whereupon several members of the Grange established at this place addressed the Clnb; all speaking in the highest terms of its excellence, and recommended its geueral adoption.

Mr. James McHenry stated that he had been appointed by the Farmers' State Union, as a member of a Committee on Freights and Fares overland. So far he would state that he had been met by the officera of the Central Pacific Railroad Company in a friendly msnner, and he was in hopes, if no obstacles were thrown in the way hy connectiug lines East, the matter would be amicably and satisfactorily arranged.

A letter from the Secretary of the Executive Committee of the Farmers' Union, addressed to Mr. R. B. Smith, a delegate from this county to said Convention on the aack question. Mr. Smith being absent the President stated that the letter had been answered; and on motion, the course pursued by Mr. Smith was dnly indorsed by the Clnb.

Mr. McHenry introduced a resolntion, the purport of which was that, as the Farmers' Union had recommended a premium of $3,000, to be given by the State to the first three vessels that should ship grain to Europe in bnlk, that a like premium be offered to the first overland railroad company that complied with its provisions. After some discussion, in which the action of the Farmers' Union was censured, as embodying the principle of subsidy, the motion and resolution were defeated.

Mr. Walthall moved that the discnssion at the next meeting be "The future of this Clnb.—*Stanislaus County News.*

Yolo Farmers' Club.

Saturday, April 19, was the day for the regular meeting of the Farmers' Club, and there were several farmers at the Court House ready for business. No officers being present to take the chair, the members concluded to organize themselves, and did so, after which they discussed the lack of interest manifested by the members, and also the lack of energy which seems to pervade the farmers of the county in uniting with those who initiated the movement. It was thought that many objected to the Club on accounnt of its public character, and after discuasing the matter for some time, the following resolution was submitted and adopted.

At the meeting of the Farmers' Club held in the Court Room in Woodland, Saturday, April the 19th, 1873, there not being sufficient members present to transact bnsiness, it was resolved that at the next meeting of the Clnb, to be held in the Court Room in Woodland, two weeks from to-day, at 2 o'clock P. M., there will he an effort made to organize a secret association, or Grange. The membera are all requested to attend, all farmers are requested to attend and give their views. None hnt farmers will be admitted in the secret association as members.

Chas. M. Hiddleson,	Robert Roberts,
Wm. M. Jackson,	T. J. Dexter,
W. S. Flournoy,	R. B. Blowers.

—*Yolo Mail.*

Oakland Farming, Horticultural and Industrial Club.

Parasiles, Gophers, Moles and Epizooty Discussed.

Regular meeting, Friday evening, April 35th, Pres. Dr. E. S. Carr heing absent, forming a branch club at Livermore, Mr. Chas. H. Dwinelle was, on motion, elected temporary Chairman.

The reception of documents from Senator E. Casserly was announced.

Mr. Lehmsn advocated the use of whsle-oil soap for the preservation of roses. It destroys the scales.

The Chairmsn remarked that the blight and mildew sets in about the time the fogs commenced. Smoking the plants destroys the bugs. He had seen the California wild cherry sorely afflicted with "scales." The whale-oil soap-wash had heen used with good effect.

Mrs. Carr stated that the rose hushes in Mr. De Fremery'a and other gardens were sorely affected. She had also seen the scalea covering the under side of the leaves of the centnry plant. The remedy was a simple decoction of ashes and hot water.

Mr. John Rosa gave his experience in relation to the ravages of parasite animals in the roots and leaves of roscs, and said it was well to transplant them every two or three years.

Charcoal and soot had heen tried by Mrs. Carr with success, in destroying larva around currant and other bushes.

John Ross, who has the largest snd most varied cacti apecimens of any person in Californnia, gave a very interesting sccount of the mannor of raising and preserving them. There is a speciea of cacti which ought to he watered ont little. This preveuts their rotting. He has over fifty vsrietiea of cactns in his hothouse. They do not require the csre that other plants do.

Mrs. Carr stated thst a night-blooming cereus in E. W. Burr'a conservatory at the Presidio, San Francisco, had sixty flowers blooming dnring the season.

Mr. Horner gave his experience in ridding the country of gophers st this season, when strychniue in apples and other dclicacies would tempt them in preference to the abundance of green thiugs now spread ont before them.

Membera stated that the epizootic extends np the valley as far as the Mission and Livermore, but many of those about the University grounds are exempt.

There are two forms of the disease. One is attended with violent conghing and little running at the nose, and the other *vice versa*. Horses are taken ill when out at pasturage, and the turning them "out to grass" is not a sure preventative of the malady.

The continuation of the disease varies with the amount of labor required of the horses. Some of them are greatly troubled with inflammation.

Mrs. Carr stated that a strong wash of common soap, applied hot, seemed about as effective as whale-oil soap.

Mr. Dwinelle explained how most kinds of plsnts would bear hrief immersing in hot water, up to 160°, or nearly scalding point. No insects can stand that. But plants can easily be inverted and immersed in vessels of hot water.

Mrs. Carr, referring to the advantages mentioned by Mr. Ross of transplsnting shrubbery, recited her observations on the growth of raspberry and blackberry bushes in the foreat. The wood usually dies out in two or three years' growth. When the outward enda of a hush beeomes imbedded in the earth, new shoots atart up about it. This process repeated gives the plantaa traveling character. After impoverishing the ground of the principal ingredients forming the growth of the wood it flonrishes there no longer, bnt moves on into fresh soil, in which it produces again with abnndsnce.

Destroying Moles.

Mr. Ross hsd read an inquiry in the Rural Press for the best method ot destroying moles. Since then he saw the engraving of an ingenious trap, said to be efficient, illnstrated in London's Encyclopedia. Mr. Lehman said he helieved it was aimilar to the trap he spoke of making a few meetings since. Mr. Dewey ssid that Mrs. J. P. Moore, a member of the Club, after trying msny waya to get rid of the pests had succeeded completely by giving them strychnine in meat, pieces of liver, etc. A member stated that as squirrels have a poorer fsculty for "digging out" than "digging in" it had been stated that hy filling up their holes and tramping them hard they would not get out.

A member having severely criticlaed a reporter, was advised hy the President thst it wonld be well to treat all friends and members of the Club with greater considerations. Several others testified to the usually courteons and kind aid given to the Club and its speakers hy the reporters of the papers.

The Currency Question.

A gentleman having promised the Secretary to speak upon the advantages of a greenback currency for California, it was voted that, thst question shonld be considered among other subjecta at the next meeting.

Mr. H. B. Livingston (of the *Daily Transcript* editorial corps) was proposed and elected

a regular member of the Clnb—in preference on his part to an honorary membership. Adjourned to May 9th.

California Farmers' Union.

During the meeting of the California Farmers' Union, in this city on April 9th, Mrs. Moore spoke as follows:

Matters of Great Consideration.

One of the main points, and one on which there seems to be some uncertainty in some minds is *the amount that will be saved by the Agency*. Let me give a few details, and I will confine my statement to the *wheat exported*, leaving out the large amount of oats, rye and barley, bought and sold in the State, and on which commissions are paid. Farmers have, as a general thing, I believe, very little idea of the magnitude of the business of the moving of the crop, and I think when this is once realized, there will be less difficulty in convincing them of the absolute necessity of co-operation, for the Farmers' Union will be powerless to act without the sympathy and material aid, that only entire confidence in wisdom of their arrangements can bring to them. This aid they must by some means obtain from the farmers themselves, for no capitalist is going to invest his money, give his time and attention, without pocketing the lion's share—that is, the commission. Let the farmers furnish the capital, and pocket their own commissions; the matter is very simple looked at in this light; the only difficulty is as to the *how* this is to be done whether by means of a joint-stock bank, out of which the Agency will naturally grow, or whether, for the first year, some plan of county incorporation would not work, until such time as the farmers have money enough of their own in their own bank to transact their own business.

Suppose each Club or so many members of it as will, incorporate, and then subscribe, say $50,000 or more according to the estimated value of the land they hold; let this association be a county bank, if you will, on which farmers can draw for half the value of their crops. Such associations would give to the agency all the credit needed, and by means of trust deeds could be made secure and convertible.

There are some fifteen counties represented in the Convention, this at the low figure of $50,000 for each county would give a security of $750,000 on which to begin business.

Amount Saved by the Agency.

1st. Commissions paid by vessels here and in England.
2d. Commissions paid to middlemen here.
3d. Commissions on sacks, if not profits.
4th. Commissions on agricultural implements.

These commissions on the crop of 1872 may be stated as follows in round numbers:

Amount of wheat for export, 500,000 tons; freight at an average of $20 per ton, which is rather under than over; and wheat estimated at $1.60 per cental in this market, we have the following results:

1st. 500,000 tons for export, at $20 freight, equals.....$10,000.000

And 5 per cent. on $10,000,000 gives 500,000 commissions, always paid by the vessels here before sailing, all of which comes out of the pockets of the farmers. This money goes to the middlemen. If the farmers had an agency here to do this business for them, this commission would be paid to the agency, and thus back to the farmers, as the agency asking no commission of the vessels would obtain freights just so much less.

2d. Every wheat "charter party" contains a clause that the vessel shall pay 2½ per cent. commission on the amount of its freight to the holder of such "charter party" at the time and place of discharging. Now 2½ per cent. on ten millions of dollars gives an aggregate of $250,000. This also comes out of the farmer, and could be saved by doing their own business at home and abroad.

3d. 10,000,000 centals at $16.0 per cental gives sixteen million dollars. Now on this amount the farmer pays 2½ per cent. whether he sends it direct to a commission merchant in the city, or whether it is bought by the shipper's agent in the country. This amounts to $400,000 more in commissions that come out of the farmer. He does not always realize that he pays this, but, in fact, he frequently pays more than this; let me say how. The middleman who furnishes the wheat to the shipper always expects for his trouble 2½ per cent. commission, and if any advance takes place after he has bought and before he delivers to the shipper, he makes this advance also. He also puts into almost every cargo some inferior lots of wheat, for which he has paid from 3 to 10 cents per cental less, but for which he receives the same price as for the whole cargo.

This 2½ per cent. does *not* cover one cent of the actual expenses attending the transportation from place of production to the shipping port, or the storing and handling of same till placed on board ship. All these expenses come ont of the farmer, besides these commissions, and are fully taken into accont when the merchant makes his bid for the wheat.

These actual expenses cannot be determined beforehand, for they depend on cost of transportation, storage, wharfage and handling, and will vary as these vary.

4th. To move the whole crop of 1872, the farmers have had to bny 12 million sacks; these, at 15 cents each, which is rather a low estimate, amount to $1,800.000. Now whether these sacks are sent here directly by the manufacturer from abroad for sale on their own account, or whether they are bought by merchants on speculation; in either case 5 per cent. commission is the lowest profit either expects to make over and above all actual expenses, and when consigned by the manufacturer he always pays this to the seller here. Now 5 per cent. on $1,800,000 gives $90,000 that would be saved by the farmers in this item, and in good years it would amount to triple or quadruple this, for in such years he not only pays the 5 per cent. commission, but he pays a net profit to either the manufacturer or the speculator of 3 to 5 cents per sack additional. The manufacturer would more readily consign his goods to a farmers' agency than to speculators.

5th. The saving on agricultural implements I am unable to give, but it would at least be all the difference between wholesale and retail prices.

Recapitulation.

5 per cent. commission on freights paid here.....	$500,000
2½ per cent. commission paid abroad on freight.....	250,000
2½ per cent. commission paid direct to middlemen.....	400,000
5 per cent. commission on sacks.....	90,000
Total.....	$1,240,000

Merced Farmers' Club.

The Club met Saturday, April 19, President Jolly in the chair.

By request, the Secretary read the resolutions passed at the late convention of the farmers in San Francisco, President Jolly moved to proceed to the election of a crop reporter, which motion was carried, and Mr. Hamilton was chosen for the position.

The President then addressed the Club on the importance of the position of crop reporter, and stated that what the farmers most desired was a reliable report of the Pacific Coast, Eastern and Foreign markets, and referred to the unreliability of the market reports last season.

Mr. Gray spoke briefly on the importance of every farmer assisting the crop reporter, as it was clearly to their interest to ascertain, as near as possible, the extent of the crops, the probable yield, etc. Mr. Gray also referred to the daily market reports published in the San Francisco papers, and stated that they could not be depended upon by the farmer as being correct.

The President stated that he had received a letter from San Francisco in relation to the establishment of a Farmers' Grange in this county, and the State Deputy would pay a visit to the county at an early date to attend to the matter.

Mr. Fowler addressed the Club, and said that he was in favor of having all meetings of farmers held secretly; that it was only by the adoption of such means that the farmers could hope to triumph over the combined organizations that were arrayed against them.

Mr. Wigginton was expected to address the Club, but was not present. Mr. Gray spoke of the necessity of having good banking facilities in our midst, and was in favor of establishing a bank in Merced; but if a bank could not be established in this county, he was in favor of co-operating with the farmers of Stanislaus County, where a bank organization was now an assured fact.

Mr. Douglas spoke in favor of establishing a bank in this county, and dwelt briefly on the advantages to be derived from such an institution. He then moved that the time in which Mr. Wigginton was to have addressed the Club be extended. Carried.

President Jolly also referred to the importance of having a bank at which money could be obtained at a rate of interest that would enable the farmer to hold his grain until such time as he could secure for it a fair price. The Club then adjourned.—*Merced Tribune.*

The Uprising.

In Illinois, last week, there were at least six farmers' conventions, largely attended, at each of which the snbject of railroads and their extortions was freely ventilated, and additional facts and figures were adduced in illustration of the intolerable wrongs under which the Western farming community are suffering. Several of the meetings passed resolutions to the effect that they never would give up the struggle until the principle is recognized that the State has power to control all the institutions she has created—a recognition which will result in proper legislative action in the Western farmer's interest. One of the six conventions was a State affair, held at Springfield, and it was addressed in sympathetic speeches by leading public men, among whom were Governor Beveridge and Ex-Governor Palmer. The latter took the ground that the railroads are public highways, and their managers public agents, both subject to the same control by the legislature as other highways and other public agents.

That secret organization known as the Patrons of Husbandry, is rapidly multiplying agencies in various States, the number of Granges in Iowa, Wisconsin and Illinois being already very large. Farmers' Clubs and co-operative societies are being organized where secret societies are less in favor. Everywhere throughout the West, in fact, the movement is manifesting itself, and we at the East are not disinterested spectators. Much that we consume the West produces. With monopolies beaten down, and freights cheapened, we must be in no small degree gainers. But above all considerations of this nature stands the one of Justice. A very large class of population is discriminated against unjustly, through monopoly and corruption. The real spirit of our American institutions is dominated over. As a people, we should sympathize with the right. —*American Rural Home.*

Patrons of Husbandry—Declaration of Independence on Farmers' Rights and Farmer's Wrongs.

The following preamble and resolutions were introduced by Worthy Master, Judge T. Hart Hyatt, at the Vacaville Grange of the Patrons of Husbandry, and adopted unanimously, at its regular meeting, April 26, 1873:

WHEREAS, We the members of this Grange, all claim as the fundamental principle of one political creed, the basis of all our political action, the grand maxim of the "greatest good to the greatest number," this being our political confession of faith, the key-note of our action, we deem it our duty to merge all minor partisan dogmas, and to act as honest citizens upon the faith that is within us; and as far the greatest number of the citizens of the State, and of our Union, is made up of the tillers of the soil, we, as "Patrons of Husbandry," as we emphatically profess ourselves to be, deem it a pleasure as well as a duty, eschewing all demagogue partisan chicanery, to declare ourselves in favor of electing only such men to our Legislatures and other positions of trust, as shall be faithful and devoted to the great agricultural interests of the State and Nation—men who cannot be bought or bribed to do the bidding of heartless monopolists, who seek to cripple the farming industry of the country, by extortionate rates of fare and freight, who burden that industry with onerous taxes and partial, high tariffs, discriminating against the farmer, and made to oppress his interests to build up manufacturing and railroad monopolies — taxing the lands we plow, taxing the horses and the plows, and the seed we sow—taxing our growing crops, whether they ever grow to maturity or not; taxing the machines with which we harvest and thresh our grain; taxing the teams and wagons with which we haul our crops to market; taxing the sacks in which we put our grain—the grain itself, and taxing the money for which the grain is sold—taxing not only his land, but the money he borrows on the credit of his farm.

All this taxation, and much more, the farmer has to submit to, to keep up the credit of his Government and to support the vampires who are robbing the treasury, and to pay interest on bonds of the Government, to bond-holders who pay no taxes on the bonds they hold, which are, virtually, mortgages on the farmers lands; paying onerous tribute to railways built mainly with our public lands, and with Government bonds that the farming classes are taxed to pay.

Resolved, Therefore, that we will support no men for law makers, or for administrators of our laws, or for any position of public trust, no matter to what party they may belong, where character for integrity and honesty of purpose, and whose fidelity to the true interests of the farmer (which are the true interest of the country,) are not beyond a doubt.

Resolved, That we wage no war against railways, or other modes of transportation, or upon grain buyers or commission merchants, only so far as their treatment of the farming interest is manifestly unjust and oppressive. So far as they are governed by honesty and fair dealing, our aims and interests are identical, and we wish to co-operate harmoniously with them. But when they form "Rings," or odious combinations to oppress the farming interests and cripple and crush out the vitality of this great paramount industry of the country, then we may be compelled to beat our plowshsres into swords and our pruning-hooks into spears, and go after the common enemy.

Resolved, That a copy of this preamble and these resolutions be sent to the Granges of the Patrons of Husbandry now formed, and that may be hereafter organized in this State, asking their co-operation in carrying out the principles and measures therein proposed, so far as they accord with their ideas and views of the necessity of the case and the exigencies of the times.

LABOR IN THE COMMON SCHOOLS.—California is not the only State in which the question is agitated of engrafting labor shops in our public school system. The proposition meets with general favor. The St. Louis *Dispatch* has an article on the subject, in which it says:

Our youth should be taught lessons of usefulness, and that "knowledge is power," but that power comes of knowledge not altogether gathered from books. Let them look around and see who are the men of influence and wealth in our midst. In many instances these are men who have learned trades early in life and were skilled workmen, of temperate and industrious habits; not those who have exhausted their physical strength and mental vigor in completeing the course of some high and normal school, and at eighteen or twenty years of age were only ready to begin their preparations for their duties of life. They should be inspired with some other idea than that greatness can be obtained only by political distinction, and other positions of honor presented to them than those of President or legislator. Teach them love of perfection in art, and respect for skill in the artisan, and also the demand that exists in the country for American artisans.

OUR EXPORTS.—The *Alta* has compiled some financial and commercial statistics for the first quarter of the year 1873 showing the amount and destination of domestic produce exported. By reference to the tables we find that 2,040 flasks of quicksilver were sent away, valued at $141,325 against 2,737 flasks in the same time in 1872, valued at $196,800. Of this 201 flasks went to Central America; 632 flasks to Mexico; 1,000 flasks to Australia; 100 flasks to China; and 2 flasks to British Colnmbia. We sent away during the qnarter 554 tons of copper ore valued at $33,208; 248 tons of silver ore valued $37,461 and 501 tons of various other kinds of ore valued $38,427. These ore shipments have fallen off from 1872 which is rather encouraging, than otherwise, since we now work most of our ores here instead of sending them away.

AGRICULTURAL NOTES.

ALAMEDA.

Transcript, April 23: HAYWOOD, April 21st, 1873. The recent rain has done a great deal of good in this vicinity. The crops are looking fine and promise a bountiful harvest.

Encinal, April 26: THE LATE RAIN.—The half inch of rain vouchsafed us on Sunday night has wrought a wonderful change for the better in the face of nature hereabout, beside effectnally laying the dust.

AMADOR.

Ledger, April 26: THE RAIN. — The long looked for and much desired rain came at last on Sunday evening. In the morning the atmosphere was damp and light clouds were hanging around in the southeast, and late in the afternoon a light but steady rain commenced to fall. About ten o'clock it came down with considerable furry, however at two in the morning at slacked up and at sunrise the sky was as clear as a bell. Around the Volcano neighborhood it rained very hard, doing much good both to the miners and farmers. The rain certainly has been of great benefit to our farmers throughout the county, and we think if the good clerk of the weather would only give us a couple of days' rain the coming week our agricultural interests would be advanced ten fold.

CALAVERAS COUNTY.

Chronicle, April 26: RAIN.—Sunday last brought the long-prayed for, much-desired rain. We were visited by copious showers that moistened the earth to a considerable depth and at the same time put a stop the growing of chronic grumblers. Ranchers, as a class, are a set of confirmed fault-finders. During a residence in the country that dates pretty well back among early days, we have never yet seen a season that exactly suited them. Even when the temperature and moisture are so favorable that no complaint can be made against either, their irrepressible propensity for murmuring finds vent in expressing fears regarding the state of the weather in the future. Let up. Really, crops were never more promising that at present, and just for the novelty of the thing we would like to hear our farmers speak a pleasant word regarding their prospects.

Citizen, April 26: APRIL SHOWERS.—Since our last issue, Dame Nature has favorered us with a perfect god-send in the shape of a shower of rain. Though coming too late to be of much service to the feed, the benefit done to the grain and hay crop is considerable. Farmers and stock-raisers had almost given up the hope of wintering their stock, the pasture being so scant, and the prospect of a crop so dubious. But the shower Sunday night last has revived their hopes, and present prospects indicate that we will be favored with an average crop. While thankful to the "clerk of the weather," for what we have received, we would remind him that we have not reached the acme of happiness, and could appreciate a day or two's rain—to wash down the shower. In fact, we are in the "same boat" with the "contraband" *gamin*, who, when asked at a charity supper which he would he would have—pie or pudding—answered, "Bofe."

CONTRA COSTA.

Gazette, April 26: THE WEATHER.—The little rain on Sunday evening moistened the ground only slightly but it freshened up the vegetation a great deal; and, as cool weather has followed it, the crop prospects have materially improved. The fall at this place measured a quarter of an inch, and was probably greater in the San Ramon, while it was less at other points in our vicinity.

COLUSA.

Sun, April 26: THE CROPS.—At Colusa we had twenty-eight hundredths of an inch of rain, but it did not extend west to the foot-hills; there being but little out there. Neither was there as much below town as here, but more above and at Jacinto it is thought that there was fully half an inch. There was sixty hundredths at Marysville. This helped out many crops, but the north wind which has prevailed since has rendered it certain that crops will generally be short throughout the county. The heavy frosts at the beginning of this month did a great deal of damage to grain, as well as to the fruit crop. Notwithstanding all this, there are many fields of Summer fallow that will yield nearly a full crop. Our farmers are at least taught another lesson about farming in the State. But we repeat to the farmers of the Sacramento and San Joaquin valleys just what we have told them a hundred times in the last fifteen years, they must arrange a system of irrigation. It can easily be done—it only requires the effort. The difference between a full crop and what they will get this year would almost construct the nec-

[Continued on Page 284.]

The Vienna Exposition.

The Vienna Exposition now ahont heing inaugurated, promises to he not only a grand success hut will differ in many important particulars from any of the great national expositions which have preceded it.

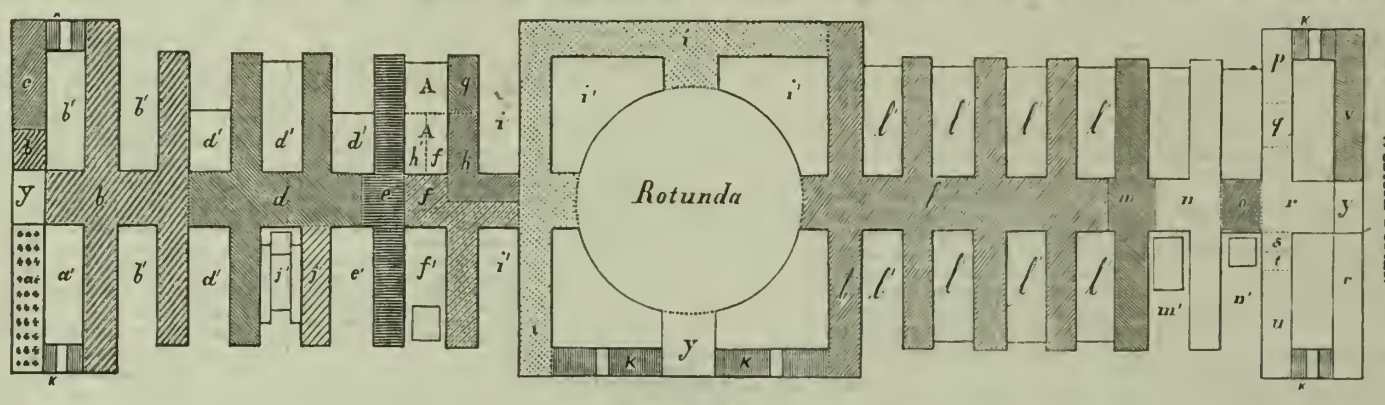
1st. One of its characteristic features will he its direct connection by hranch roads brought to the very door of the huilding, with the entire railway system of Europe. The main track where it enters the grounds, spread out into eleven hranches or sidings ruuning to every part of all the various exhibition buildings, so that merchandise can be carried directly to the very door where it is wanted, all along the lines of the buildings, which, if projected in a straight line and connting hoth sides, would measure about three miles.

2d. The mschine department with its clatter and noise; its smoke, steam and hot oil, will be placed in an entirely distinct building separate from the general exhihition; an arrangement which will add greatly to the convenience and comfort of visitors.

3d. The fine art department, always heretofore associatcd and sometimes indeed, even mixed up with the general exhihition, will be entirely by itself, where it can be scanned and studied, in quiet and without the disturbing snrrounding noise and stir of the general exhibition.

4th. More pains will be taken to isolate different nationalities in the general exhibition room, so that visitors may know at all times jnst where they are, and readily find their way from the allotment of one country to another.

5th. The system of lighting from the roof, always involving loss and damage from rain, will be ohviated. We have been furnished with some notes by our correspondent, from which we are enahled to give the following facts:



Front Portal.

DIVISION OF SPACE AT THE VIENNA EXPOSITION.

The buildings consist of four main groups, a ground plan of the principal one—the general exhibition building—is given herewith, having been engraved from a drawing forwarded to us by our special correspondent, Mr. G. Kustel. The shading is so made as to show the relative amount of space and the position thereof assigned to each nationality.

Directly beyond this (north) is, first the

Agricultural Hall or Halls,

Covering, in all, about one-third as much ground as the main building, and running parallel to its whole length. Still heyond this are the machinery halls, occnpying about the same space as the agricultural buildings, and running parallel therewith.

Just to the right of our diagram, or heyond the eastern entrance of the main building, is the Gallery of Fine Arts, separated therefrom by an open area, embellished with flowers and fountains, but connected hy galleries, reaching out from both the north and southeast corners. The admirers of Art may here study and contemplate the works of the "masters" apart from the din of the general exhibition. The building is a handsome structure of brick, cased with cement and richly adorned.

Each of these huildings are separate and distinct—the one from the other. This novel plan of the general arrangement of the exhibition will, it is confidently expected, form a most pleasing and commendahle improvement over previous exhibitions.

Plan of the Main Building.

The first of this group of buildings, the ground plan of which is given herewith, consists of a nave or central hall, running from the Eastern to the Western portal, a distance of 2,953 feet or more than half a mile long, by 83 feet in width and 74 feet high. The nave, where it meets the grand rotunda,—the dome of which is 348 feet span—branches off either way, forming a quadrangle 676 feet square, surrounding the rotunda, and opening into it at four opposite points. Collossal triumphal arches ornament the approaches to the rotunda at its entrances from the northern and southern sides, or from front and rear; while right and left, as far as to the nearest of the small transepts, stretch handsome collonnades, which form a very fine facade to and along the central portion of the main quadrangular portion of the principal huilding. The nave, it will be observed, is intersected hy 16 transepts, each 572 feet in length hy 51 in width and 41 feet high. The two transepts at either end are bound together by hnildings thrown across from one to the other and occupied as offices. These connecting buildings add about 100 feet to the length of each of the four outer transepts giving them the same length with the sides of the central quadrangle.

The spaces between the five center transepts, on either side of the quadrangle were originally left open, and intended for ornamental grounds; bnt such of the nationalities as were allowed space in the transepts and adjacent portion of the nave, who found their room deficient have been allowed to enclose and roof over such extra room as they might need in the open spaces. Tho spaces thus enclosed, up to the date of the letter of our correspondent, Mr. Guido Kustel, are shown on the diagram.

The Allotment of Space.

The allotment of space to the different nations—its relative proportion and order of arrangement—is shown in the diagram by the different character of shadings and by references. The different nationalities have also heen assigned space in the agricultural and mechanical halls, as nearly as possible opposite and corresponding to the space assigned in the main exhibition huilding. The central circular area is devoted to a general exposition.

It will be remembered, that at the Paris Exposition of 1867, nearly half the space was reserved for French contributors, while at present less than one-quarter of the gallery and yard space is claimed by Austria, although Austro-Hungarian applications at present exceed that of the French of 1867. Not counting the rotunda, the exhlbition area of the galleries counts about 640,200 square feet, and is divided in the following proportion:

Austria	158,514 sq. ft.	Egypt & Middle Africa	10,708 sq. ft.
Germany	72,904 " "	Holland	9,396 " "
France	69,052 " "	Greece	9,258 " "
England	67,146 " "	Sweden & Norway	9,226 " "
Russia	35,402 " "	Roumania	9,152 " "
Italy	32,000 " "	Spain	6,464 " "
Hungary	31,700 " "	Portugal	5,536 " "
Turkey	31,348 " "	Persia & Middle Asia	3,626 " "
Belgium	27,882 " "	Tunis	2,773 " "
United States	14,400 " "	Morocco	928 " "
China & Japan	14,400 " "		
Switzerland	12,000 " "		
S'th America	11,626 " "		

Since the above table was prepared the State Department has received information that 6,000 additional square feet of space has been alloted to the American Department. Articles from the United States, intended for exhibition will he received until June 10.

General Reference.

The quadrangular portion of the main hnilding 675 feet square, together with the cruciform portion of the nave and grand transept, its lofty and collossal dome, its grand collonnade, etc., has heen designed as a permanent structure, and national palace of indnstry, after the balance of the main and the centre of the associated buildings are removed.

Unexpected Demand for Space.

The demand for space has been altogether beyond what was anticipated, and to accommodate, in addition to the taking in of the open areas alluded to, most of the offices and all the restaurants were removed to special buildings which have been erected here and there about the ornamental grounds surrounding the building.

The Emperor has had a pavilion constructed on the outside grounds, which will form one of the great sights; for all the principle decorators and upholsters have fitted it up in the most costly and elahorate style, as an exhihition of their various trades.

The Viceroy of Egypt and the Snltan of Turkey have also each erected pavilions or palaces, as representative and emblematic of the peculiar forms of architecture, adornment and furnishing of their respective nationalities.

Our correspondent writes under date of March 20th, as follows:—"The United States machinery department will be well represented by new and interesting machines, several large steam engines, fire engines, sewing machines, sterotype and printing machines, and those for tools, horse shoes, for shoes, thrashing etc. Mining and metallurgy, (in which California might have won much reputation, if something in that line had been done as urged in the Scientific Press of June 15th 1872)will be represented principally by the American iron industry, exhihiting also Bessemer and Silicon steel machines; of minerals, a collection from Nevada and one from Utah will be shown; of Agricultural products—wines from California and some of the Eastern states, tobacco, flour, sugar etc, is under way An American school house fitted out with a collection of American school hooks and other means connected with our systems of education will be erected and exhibited by Mr. H. Heiger. There is also a considerable contribution to the Art Gallery, from American artists. From the African diamond fields a specimen will he exposed weighing 288 carats. *None is announced yet from Arizona.*

The "*Neue freie Presse,*" says that several hundred German farmers, from the fertile valley of San Joaquin, intend to visit the Exhibition *and return in double force* hy giving up their domestic loneliness. The belles of Vienna are undoubtedly very much pleased to read such Sabinic news and await the result with patience.

The Achmet-Fountain, a copy of the fountain which was built in front of the Snltan's seraglio in Constantinople, hy Sultan Ahmed III in 1730, is nearly ready. It represents the Turkish architecture or rather the Orientalic and surprises by its rich ornamental outfit. The fountain is built of marhle from the sea of Marmora, with gilded hronze ornaments. Each of the four sides shows another style of Turkish architecture. The fountain is 42 feet high, each side being 39 feet wide. On the main front is the inscription "Traveler, drink of this water and pray for Sultan Ahmed."

The means of conveying persons hy horse-rail cars, omnihusses and pnhlic carriages in town and to the palace are increased to the capacity of 440,000 persons daily."

Explanation of Diagram.

a, United States;	*n*, Russia;
b, England;	*o*, Greece;
c, South America;	*p*, Roumania;
d, France;	*q*, Persia;
e, Italy;	*r*, Turkey;
f, Belgium;	*s*, Tunis;
g, Sweeden;	*t*, Morocco;
h, Holland;	*u*, Egypt;
i, Germany;	*v*, China, Japan and Siam;
k, Offices;	*A*, Denmark;
l, Austria;	*j*, Switzerland;
m, Hungary;	*y*, Entrance Halls.

Saccharine Matter in Mushrooms. — A. Muntz says that mushrooms yield a syrup, readily crystallizahle; which presents all the properties of the sugar obtained from the manna of the East.

The Sun's Rays, in passing through plain glass of uniform thickness is very much diminished, but not nearly as mnch so as heat from other sources.

On Foot Through Lake County.

From Lakeport, a short walk over well-wooded rolling lands hrings me to Scott's Valley. Here, well-cared-for stock, of choice breeds, orchards of fine fruits, the general air of comfort, for the man, as well as the beast, mark the settlers as men who make farming a study, thereby making it profitable and easy. The valley is not large, but its soil yields largely. Upper Lake, a town hardly begun, is some ten miles from Lakeport, on the inlet of the lake. The soil, about here is of exceeding fertility, and timber, oak and ash grow to large size, in hight, as well as in diameter.

I discussed the profits of the stave business, named the prices in San Francisco with some of those who talked of the hard times. It sonnded well, but then, it would make them sweat to chop and rive. Were it not for that, I think they would go into the business. There are some old settlers near Upper Lake who have seen, and felt, all the dangers and privations of frontier mountain and life, who are now enjoying peace and prosperity and are proud of and happy in the comforts and improvements they have about them, the work of their own hands.

Lake county is small compared with those which bound it, mainly mountainous, indented here and there with valleys of alluvial soil, rich and fertile for cereals and fruits of the hardier kinds, the apple, the plum, the pear and the cherry. The apple retains its flavor longer than those grown in lower lands, and has keeping qualities unsurpassed. It would seem to be the paradise for fowls of all kinds. A merchant who did business in a hamlet told me that he purchased a thousand dozen of eggs per month during the winter.

Clear Lake, the source of Cache creek is the most considerable body of water. Surrounded as it is by towering mountains it affords a scene which never ceases to please. Near its horders, on the north lies the borax lake, from whose mud much borax is extracted. The manufacture of borax is one of the most important business operations of the county. To my snrprise, I saw teams loaded with borate of lime, from the State of Nevada going to the lake to be purified. I was informed that large quantities were hrought for that purpose, giving many teams employment. Lake will be in time a mining county. I saw fine specimens of copper ore and cinnabar. Vast sulphur banks are known to exiist. Any where and everywhere are seen the evidences of minerals.

The springs are strongly impregnated with iron, and all the known poisons and healing minerals to be found in the earth. The invalid, who comes here and leaves uncured, has surely made a mistake, and gone to the wrong spring. At one the gouty toe is left, at another the dyspeptic attains a new set of digestive organs. Here nerves are renerved. There Naaman the lepper could have washed and become clean. In this one, the ambitious matron may find a stepping stone to greatness. In that one, the old man may rejuvinate.

Here is the fount which Ponce de Leon songht. Come to Lake county, you, worn out with business cares, you who have maladies greivous to he borne, bring here the sickly child and the feehle woman. Drink the waters if you will, of her precious springs. Bnt come and drink deep draughts of mountain air, pure and invigorating, and with God's hlessing health will come.

A long and lonely walk from Lower Lake, to Long valley, through mountain pastures, mile, after mile without castle or hut, and then sleeping soundly at the pleasant home of Mr. R, take a look at his fine flock of sheep, in the morning, and regretting that I am not a shepherd of the mountains, start down the north fork of Cache creek. At the ford, I mount behind Mr. S. the substantial herdsman of High valley, and leave Lake county. Long shall I remember with pleasure the few weeks I spent there. Senex.

The Oldest Apple on Record.—The Dresden Monitor says: Our Postmaster recently showed us an apple that was grown in the year 1835. The apple was given to his wife before their marriage hy a little girl that was going to school to her. This apple instead of rotting, dried and withered, and in its present state looks as if it would keep for half a century to come. At the time of its growth it must have been a very large and beantiful one. But in its present state, is of small dimensions.

Useful Information.

Manufacturing Industry in California.

The Federal census gives the following return of mannfacturing industry in California:

		Annual product value.
Flouring and grist mill products	115	$9,036,386
Blacksmithing	433	1,161,990
Boots and shoes	420	2,214,807
Bakery products	74	1,185,820
Carpentering and building	266	1,391,163
Carriages and wagons	84	1,309,443
Chromos and lithographs	108	1,090,270
Gas	10	1,356,753
Iron castings (not specified)	27	1,139,841
Malt liquors	16	1,099,207
Vinous liquors	96	1,641,144
Lnmber, planed	22	1,052,850
Luber sawed	291	5,327,064
Machinery (not specified)	29	1,622,117
Steam engines and boilers	17	1,737,710
Sugar refining	3	3,904,045
Newspaper printing and publishing	50	1,528,446
Milled quartz	114	3,405,678
Smelted quicksilver	4	1,027,680
Saddlery and harness	187	1,068,452
Tobacco and cigars	88	1,909,927
Woolen goods	5	1,102,754

Economy of Fuel.—A correspondent in *The British Workman* tells how to build a fire as follows: The person laying a fire should fill the grate up to the top bar with coals, putting large pieces at the bottom and smaller over them, then upon these, paper enough to light the sticks, which should be laid upon, and not under, the coal. Cover the sticks with the cinders remaining from the previous day's fire; these will soon become red hot; the coal below will be warmed sufficiently to make it throw off gas ; this passing through the hot cinders, will be kindled, and will burn with a bright flame, instead of going up the chimney in smoke, as it does when the coals are laid on the top.

The fire thns laid will require no poking, and will burn clear and bright for from six to eight hours without the necessity for more coals to be thrown on.

Uses of Rawhide.—The skin of an animal, whether cow, calf, colt, or horse, that dies on the farm is worth more at home than at the tanner's. Cut it into narrow strips, and shave off the hair with a sharp knife before the kitcheu fire, or in your workshop, on stormy days and evenings. You may make them soft by rnbbing. A rawhide halter-strap an inch wide, will hold a horse better, and last longer, than an inch rope. It is stronger than hoop-iron and more durable, and may be used to hoop dry casks and boxes, and for hinges.

Try it on a broken thill, or any wood-work that has been split. Put it on wet, and nail fast. Thin skins make the best bag-strings in the world. A rawhide rope is a good substitute for a chain. It is valuable to mend a broken link in a trace-chain. For some purposes it is best to use it in its natural state. For other purposes it may be dressed soft.

For Smokers.—Smokers of the royal weed are recommended to place in the bowls of their pipes a little powdered tannin, or a sponge saturated with tannin. The smoke will thus be deprived of its characteristic aroma and all the vaporized nicotine, which is the intoxicating principle. At first the smoke will be entirely free from all taste and smell of tobacco, but as the sponge becomes charged with the nicotine the odor will reappear. By charging the sponge frequently, the smoker may indulge in his habit as immoderately as he pleases without injurious effect.

Improved Tracing Paper.—Puscher of Nuremburg has lately suggested a solution of castor oil in absolute alcohol for the purpose of manufacturing a tracing paper. The oil is to be diluted with one, two or three times its bulk of alcohol, according to the thickness of the paper, and the amount consequently required for rendering it transparent. This can be laid on by means of a sponge; and in a very few minutes after the application the paper will be dry, transparent, and ready for use. It will readily receive the mark of a pencil or India ink, and as by immersion in absolute alcohol the oil can be removed, the paper can be restored to its original condition if desired.

Improved Drawing Ink.—The addition of one part of carbolic acid to 80 parts of the fluid India ink, while it does not impair its fluidity, causes it to dry rapidly even in heavy lines, so that they can be varnished over. The proper amount of carbolic acid to be added in any case may be ascertained by adding drop by drop the ordinary apothecary's solution of it in alcohol until varnishing does not effect the definiton of a test line by causing it to run. The addition o too much carbolic acid is indicated by the transparency of the line and the iuability to draw fine lines, a condition easily remedied by the addition of more of the fluid ink.

Carbolic Acid may be deodorized by mixing it in a crystalized form with twice its weight of gum camphor, and adding whiting to the componnd. In this form it is said to be valuable both as a disinfectant and as a protection to furs against moths.

Gases.—Of the 28 gaseous bodies known, 25 are reducible to liquid, and 9 to solids. When compression is required they all spring back to their original conditions with great rapidity and in many cases with destructive energy.

Cultivation of Green Oysters.—The green oyster is highly esteemed by epicures, as being far more delicious in flavor than the white. Hitherto it has been supposed that the green color could not be produced outside of certain favored localities, the Marennes Basins, for instance, in France, sheltered bays in the Hebrides, and on the coast of Scotland, etc. This supposition proves to be incorrect, as according to M. Rocheburne, of the French revenue service, he has succeeded in growing green oysters at Arcachon, where they were never grown before. The details of the process by which M. Rochebrune obtained this result were reported to the Bordeaux Scientific Congress of last year, and will probably appear in the published accounts of its proceedings.

Opium Eating Among Animals.—The *Agricultural Gazette* of India is responsible for the assertion that, when animals have once learned to know the taste and properties of opium, they become as fond of it as human beings. In China, it is necessary to fence the poppy fields very carefully to keep out the cattle. Horses and cows that have become accustomed to being fed on poppies, sicken and die if deprived of them. Hogs fed on poppy-heads fatten qnickly, but they must then be slaughtered. Bees prefer this to any other food, and rats come to opium factories to enjoy breathing the very dust of it.

Professor Liebig, writing on the effects of various stimulants, describes the red wines in some cases beneficial, or at all events the least hurtful; white wines generally are detrimental to the nervous system; sherry and strong cider intoxicate more rapidly than most wines, and have a peculiar influence on the gastric juice. Beer produces a heavy and dull intoxication, although the drinker of it is not apt to get thin. But the consumers of whiskey and brandy "are going to certain death."

An Anti-Swindling Ballot-Box.—An ingenious Bostonian has invented an anti-swindling ballot-box. By a mechanical contrivance, the number of times the box is opened for the reception of ballots is marked. This register shows at all times the whole number of votes deposited, and, as it records but one every time the box is opened, any attempt at stuffing is at once discovered.

Good Health.

A New Mode of Treating Dyspepsia.

The Archives of Scientific and Practical Medicine, a new monthly edited by Dr. Brown Sequard and published by the Lippincotts, contains, among other very interesting articles, one in which the editor describes a novel mode of treatment which he first tried with perfect success in a very bad case of dyspepsia in 1851, and which has since been tested, with more or less satisfactory results, in many cases of dyspepsia. The following is an extract from the account of the first case :

"After a few days, finding that he had not improved, I decided to try a radical change of his alimentation, as regards the quantity of food to be taken at a time. Instead of three meals a day, I made him take sixty or more. Every twelve or fifteen minutes he took two or three mouthfuls of solid food, chiefly meat and bread. He drank a little less than a wineglass of Bordeaux wine and water every thirty or forty minutes. On the very first day this mode of alimentation was begun his digestive troubles disappeared, and within a week he was so well that he returned to Paris. * * * He continued the same mode of alimentation for almost three weeks, and then gradually diminished the number of his homœpathic meals, and increased the amount taken at each of them, until in about eight or ten days he came to eat only three times a day, and a full meal at each time."

The following paragraphs will serve to give the reader a clearer idea of the treatment commended :

"The plan consists in giving but very little of solid or fluid food or any kind of drink at a time, and giving these things at regular intervals of from ten to twenty or thirty minutes. All sorts of food may be taken in that way, but during the short period when such a trial is made, it is obvious that the fancies of the patients are to be laid aside, and that nourishing food, such as roasted or broiled meat, and especially beef, mutton, eggs, well baked bread, and milk, with bntter and cheese, a very moderate quantity of vegetables and fruit ought to constitute the dietary of the patients we try to relieve. This plan should be pursued two or three weeks, after which the patient should gradually return to the ordinary system of eating three times a day.

The most varied diet as regards the kind of food can be followed under this plan as well as when one has only two or three meals a day. The only absolutely essential points are that the amount of food taken every 10, 15, 20, or 30 minutes be very small (from one to four mouthfuls), and that the quantity of solid food in a day be from 32 to 40 ounces, or a little less when, instead of water, the patient drinks beef tea or milk."

Ancient Chinese Surgery.—It has been proved by the Chinese medical records that 1,600 years ago the doctors of that country used anæsthetics to make patients insensible during serious surgical operations.

Cold Bathing.—Just now there is a reaction against daily cold bathing. A medical man cautions his patients against too frequent bathing, for fear the oil may be removed from the skin. He tells them that twice a month during the winter and twice a week during the summer are quite enough for anybody. A well-known writer has cautioned the world against the removal of the skin oil by too frequent bathing. This is an entire misapprehension. In hydropathic establishments the patients are sometimes bathed three or four times a day, yet never lose the oil of the skin in consequence. Pugulists, in preparing for the prize ring, are bathed two or three times a day and rubbed with rough towels by the strongest arms. Heenan was bathed three or four times a day, and was rubbed by McDonald and Cusick with all the power of their strong arms fifteen minutes at a time, and with the roughest towels and brnshes, and yet the account says that when he appeared in the ring his skin was as beautiful as a baby's. If cold water were used without soap, a bath every hour, with the hardest friction, would only increase the secretion of oils.

Luxury and Poison.—From experiments made by eminent physicians in France, it is shown that the articles ordinarily made and sold there under the name of "ice cream," is mainly manufactured of corn-starch, French clay, and poisonous coloring matter. The beautiful carmine which pervades the treacherous compound comes from the cochineal bug. A coutinued course of snch poison produces the most direful maladies. First, dyspepsia, then scrofulous eruptions, accompanied by a loosening of the teeth, and a dropping out of the hair. This agent of destruction is not confined to the street corners alone. It is sold as well in innumerable gilded saloous and places of fashionable resort.

Medical Value of Asparagus.—A medical correspondent of an English journal says that the advantages of asparagus are not sufficiently estimated by those who suffer with rheumatism and gout. Slight cases of rheumatism are cured in a few days by feeding on this delicious esculeut ; and more cronic cases are much relieved, especially if the patient avoids all acids, whether in food or beverage. The Jerusalem artichoke has also a similar effect in relieving rheumatism. The heads may be eaten in the usual way, but tea made from the leaves of the stalk, and drank three or four times a day, is a certain remedy, though not equally agreeable.

Lemonade in Fevers.—A cotemporary says that in most cases of fevers we have no doubt that an attack might have been prevented and the patient well in a few days without a particle of medicine, by rest, partial fasting and free use of lemons and lemonade. The virtue of this article in bilious attacks and incipient fevers has beeu tested with best results and we commend its use as a preventive of these diseases.

Effects of Eating Bran.—The N. Y. Farmer's Club asked "what probable effect it would have if people should eat the phosphate of lime found in their wheat, instead of throwing the most of it away, as they now do in the bran?" Dr. Smith answered that two or three generations hence the men would be taller and *the women would have better teeth*—something worth considering."

Mosquito Bars and Malaria.—Writers of experience in nature, strongly recommend the use of the musquito curtains in tropical regions, as a precaution against malaria. They "sift the air, and besides tend surprisingly to keep the temperature within them uuiform.

Utilizing Old Iron.—The Sacramento *Record* says : It is well known that the more frequently old wrought iron is worked over the better it becomes. Acting upon this principle, all the axles with worn journals on the Central Pacific Railroad are now sent to the shops in this city, and by a blow of the trip hammer the ends are cut off. These ends are thrown into the scrap pile and are worked over as needed. The amputated axle is now upset and the ends beaten out to a shape like a hollowed hand. Into this hollow a fifty pound piece of fresh iron, at white heat, is welded and thoroughly worked upon the axle, which, being re-turned in the lathe, is found to be superior in all respects to completely new axles. Since this plan has been adopted over ten thousand journals have been thus treated. The rapidity and neatness of the process will repay a visit to the works to witness it.

Another Good Way to Keep Meat.—Cut in slices ready to broil or fry for the table. Then putting down in a jar one layer of meat, spriukle with salt and pepper, and so continue till the jar is filled, cover closely and set in the coolest part of the cellar. It will keep a long time, for I and my neighbors have tried it.

Cause of Decay in Eggs.—U. Gayou has advanced the novel idea that the main cause of the decomposition of eggs is the presence of small organisms which must have formed in the eggs while in the oviducts of the fowl.

The Mansard Bonnet is declared a nuisance in the lecture room; and in some public halls a rule is adopted requiring ladies to leave their Mansard at home.

Domestic Economy.

A German Domestic Invention. — An ingenious culinary utensil has been devised by Mr. Huch, of Brunswick, Germany. The apparatus consists in a unique arrangement of a coffee-pot, which is set over a lamp or gas flame, and closed air tight by means of a cover, the rim or flange of the latter dipping down into water contained in a deep trough that is formed around the pot. The lid of the pot is connected with the regulator of the lamp, or gas flame. Wheu steam is generated within the pot, the lid commences to rise, and acting upon the regulator, it causes the flame to be generated with sufficient rapidity to raise the lid higher. Mr. Huch constructs the pot with an inner vessel, fitting closely within it at the upper part, and this inner vessel has a perforated bottom covered with felt, flannel, or similar material, on which the coffee rests. A pipe descends through the perforated bottom of the pot. When the water in the pot boils, the pressure of the steam drives the water up the pipe into the upper vessel and over the coffee. The water then comes in contact with the lid, the lid floats; being thus lifted, by means of apparatus connected with it, it extinguishes the flame beueath. The steam in the lower part of the pot condenses as the pot becomes cooler, and the vacuum so formed causes the water to descend through the coffee, and the infusion is then ready to be drawn off for use.

Dining-Room Innovations.—An article in the Paris *Sport*, makes mention of two iunovations upon the established routine of the dining-room proposed by epicures of that city. One party of these bons vivants is desirous of introducing anew the ancient custom of dining without tablecloths, as was done by the Greeks of old in Europe until the Middle Ages, when they first came into use under the name of doubliers. They also suggest that the objects used on the table should be still more varied and elegant in the material workmanship than is now the case. There is another party of epicures which opposes this plan, and proposes in its stead an innovation in quite another direction. Their wish is not only to maintain the present usage of the table-cloth intact, but even to extend the fashion in the matter of napkins. The ground taken by them is, that the napkins should be changed for the different parts of the dinner, as is done with the plates, wine-glasses, and knives and forks.

Milk, Tea and Coffee.—Prof. Loomis thus speaks of milk, tea, and coffee. "Milk contains in solution not only a due proportion of carbon, hydrogen, oxygen and nitrogen, but all the other elements necessary for the construction of bone, nerve, etc., and hence is always a proper food in all circumstances of health. Tea derives its beneficial qualities not from its direct supply of nutrition, but from its affording a peculiar substance called theine, the effect of which in the system is to diminish the waste, thus making less food necessary. Tea thus has a positive economic value, not as a supplying but as a saving nutriment. Coffee, though of a taste so little allied to tea, derives its value in precisely the same manner and from nearly the same substance. Its value and effect in the system are therefore the same as those above stated. It is hence evident that milk, tea and coffee are valuable articles of food under all conditions of temperature.

A Danish Baker has invented a way to prepare a fresh, palatable and nutritious article of food in the form of cakes, containing two and one-half parts of bread to one of meat, and sufficient condiments, which it is claimed will resist the action of weather, and is excellently adapted for food for soldiers in the field or on the march. A large field of usefulness is before an invention of this kind, in utilizing the flesh of our Texan cattle and those of South America and elsewhere, which is now left to rot, or, as at Galveston and other Texas ports, is towed out into the Gulf after the hides are stripped off. Preventable sickness and premature mortality among the underfed populations of older communities might be largely reduced by the use of food now wasted.

Cheap Mosquito Bar. — There is a cheap mosquito bar in vogue among the plantation hands and boatmen in some parts of the South which answers every purpose to the letter—it is common coal oil. A small quantity of oil is dropped upou a piece of cotton, and then squeezed out as dry as possible; after which the cotton is rubbed over the face and hands. No mosquito will alight where the scent has been left. I have tried it, and then exposed myself to clouds of them on various occassions without experiencing the least annoyance. Thousands of them would hover within an inch of my face, and sing by the hour, but none dare touch.—*Eutomologist.*

Cheese—According to the statement of Professor A. J. Bellows, has in it more than twice the amount of food of any other known substance. It should therefore be used in small quantities and with articles containing little nitrogeu, such as fruits and fine flour. Those persons whose occupations necessitate hard hard labor, and who cannot afford much fresh meat, will find in cheese a most wholesome nutritious food, less expensive and less likely to develop in the human system those scrofulous diseases attributed to animal food.

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SAN FRANCISCO:

Saturday, May 3, 1873.

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Borax for the Epizooty.

A city paper remarks, that the proprietors of the establishment to refine borax on Powell street near Chesnut, have satisfied themselves that they have found a protection against the epizootic. Knowing that borax has a healing influence on inflammation of the mucous membrane of the month, in the human genus, they gave four ounces daily of it, refined and puiverized, in their food, to each of their horses, not one of which has been attacked, while many others about them not thus protected have been afflicted. The horses like the medicine. Physicians, familiar with the qualities of borax, anticipate favorable results from the use of the new remedy.

THE HORSE DISEASE has become general all over the State, but San Francisco naturally suffers most. The disease is said to be in a milder form then when it raged in the Eastern States but its presence is nevertheless very detrimental to business of all kinds. Oxen have appeared in our streets in limited numbers and we have taken advantage to some extent of the central population of the city and utilized small gangs of chinamen to draw market wagons, etc.

BENICIA CEMENT. — The Benicia Cement Company's works have changed hands, and the new company will make extensive improvements. A large bed of cement rock has been discovered not far distant from the works, which will supply a much larger mill than the one in operation, with rock for years to come.

A Semi-Tropical Land.

We have watched the coming and the going of the early spring, the summer and tho autumn fruits of Central California for twenty years. We have carefully noted the first fruits of the seasons and inquired into the locality of their growth purposely because it is these early fruits that always command the highest prices. We have been making a note of the prevalence of late spring and early autumn frosts where ever they interested us, for the same length of time, 20 years, and we have marked well the qualities of matured fruits as they have been annually put upon the markets.

The result of our observations is, that for the supply of the San Francisco market, within a reasonable time or within a few hours after gathering the fruit, there is no better district in the whole State than that known as the Putah Creek country ; or that which lies between Putah Creek on the north and Lagoon Valley on the south, and embracing the valley land contiguous to the hills as well as the lesser valleys that put upinto and among the lower hills, of that district.

The finest oranges, the earliest and largest figs, the first cherries, apricots and peaches of the seasons, invariably come from the Wolfskilis and their vicinity; and G. Barker and J. Bassford are among the noted of the State, for the production of fine cherries. During the prevalence of the late severe frost so damaging to early fruits throughout California generally this locality almost entirely escaped its withering severity.

We like to trace effect, back to its cause or or give a reason for the "faith that is within us." In doing this it is only necessary to state a fact, without giving a reason for the same; it is this; that whereas almost every other locality in the State is blessed—for it is generally considered a blessing—with cool nights through the whole of our long-heated, rainless summers, this locality does not feel them to the extent that other fruit growing districts do; but on the contrary, revels in a continued but genial heat, almost day and night alike, causing the earliest and fullest perfection of its fruits.

California Importing Oats.

We notice among our grain transactions, the arrival from Omaha, via railroad, of 200 sacks of oats, sold here at $2.15 per cental of 100 pounds; quality equal to "Dark Coast," or about second rate as compared with our best California coast grown oats. The idea that California must import her oats, does not speak well of her varied agriculture, and that they can be brought from Omaha at a profit does not show that transportation by railroad or freight charges are always as extortionate as is sometimes represented.

Wheat and flour go East from Marysville via railroad, and oats are brought from the East here, at such freight charges as leaves a margin of profit to the mover or dealer in these grains. We hope, however, that there is enterprise enough in our farmers having suitable lands, to stop this importation of oats. Or is it that we have not the land, suitable to grow them? Oats are a grain easily kept in large quantity in good condition, in bulk, and for the last two years we notice they have been worth a part of the season, more per cental than wheat, and usually more oats can be grown per acre than wheat. How long must we import oats ?

DRINKING WATER.—We have a correspondent G. S. at Charlott, Clinton Co., Iowa, who says: "I intend to come and drink of the waters of the Pacific, and I intend to land at San Francisco; and I want you to send me a specimen copy of the PACIFIC RURAL PRESS."

We have sent the copy of the PRESS as desired, and we would be glad to see G. S. come among us as a future resident, but if he is going to drink "Pacific Waters," he is a man of very queer taste, so far as drinking is concerned. However, so that he leaves enough for our steam ships to float in safety, he can "pitch in."

DECIDEDLY INTERESTING.—The reader can find in this week's RURAL, in a letter from Mr. Wm. R. Olden of Anaheim, some of the most practical and interesting remarks and suggestions on the culture and use of Alfalfa, that we have ever been favored with; besides giving the locality where lands adapted to its culture can be obtained at reasonable prices.

French Merino Sheep.

We hope our readers will not fail to appreciate our efforts to supply them with information, relative to all kinds of blooded stock. We strive to act upon every reasonable suggestion and respond to every intelligent interrogatory; consequently, at considerable expense and trouble we have visited the flock of French Merino Sheep, owned by Mr. Robert Blacow of Centerville, Alameda county, and submit the following: Mr. Blacow's flock numbers between 500 and 600 head, and is the only flock of French Merinos to our knowledge in this part of the country.

The French Merino produces the most remarkably dense fleece of the finest style and unusual purity. The distinctive characteristics of this variety of merino, are those of considerably larger carcass, (two-year old rams of this breed having attained weights of 200 and 250 pounds), longer wool, weightier fleece and better fattening qualities than any other variety admits of. These are results obtained by a course of treatment conducive to corporeal vigor and healthfulness, which renders them better reproducers, and better calculated to meet without prejudice, changed conditions, and better adapted to enter into harmony with them, and to receive the healthful modifications which local influences imposed under a system consistent with them.

In the treatment under which the French Merino types have been formed, there is less stimulation of the skin, less exudation of oleagenous matter. We make the following extract relative to this breed from the Agricultural Report of 1871, "Mr. Wm. Latham, a very intelligent flock master of Buenos Ayres, says: I believe that it is to this blood, that we must look for the regeneration of our flocks, I am confirmed in this opinion by observation here, by the knowledge of the want of the great manufacturing interest in Europe, and by the practice of Australian breeders."

It is also noticeable that the French Merino, from their more vigorous and healthy habit, and absence of excessive stimulation of the skin, are less subject to the "Scab" and other cutaneous diseases, less liable to lung affections, the rams less exposed to constitutional "breakdown" in course of service, and the wool being longer and less greasy, is not so likely to collect impurities, and suffer prejudice from burrs, grass seeds, etc. Mr. Blacow has had considerable experience with sheep, and devotes much attention to his flock, which is the finest we have seen of any breed, anywhere. It is hoped that sheep raisers throughout the country will avail themselves of Mr. B's. liberal terms and procure blooded stock. His advertisement will be found in another column.

Stock Moving.

We notice that out of the herd of the indomitable Saxe, importer of eastern fine-blooded stock, goes some 30 head of Spanish Merino sheep and an invoice of Short Horned stock, the purchase of Mr. A. S. Baker of Oakland, who puts them under the care and management of Mr. O. Bingham of Oak Glen Farm, three miles north of Vacaville, in Solano county.

There is a growing disposition on the part of California farmers to turn their attention towards a mixed husbandry, and particularly the introduction of the finer breeds of animals upon small farms, as being a profitable source of income, as from their greater value, a lesser number will yield a larger profit than a much larger number of the common breeds. Of the short horns, sent forward, two yearlings brought, respectively $225, and $250 each.

The sheep are at present unshorn, but a part of the same lot, previously removed have been sheared, resulting in the ewes yielding 12½ pounds of wool of ten months growth, to the single ewe. The lands in the vicinity of Oak, Glen are well adapted to the rearing of fine stock of which fact, the occupants seem determined to avail themselves.

Write For Your Paper.

It habituates you to writing, leads you to think, and enables you to expres your thoughts. The man who thinks, and can express his thoughts, will acquire an influence in the community in which he lives, which will go far towards enhancing his worth and usefulness.

Simplicity is the best ornament, and if you make a mistake or two in spelling, owing to being more used to the plow than the pen, any editor will take pleasure in putting you right before the public. Every agricultural editor knows that his best articles are the short ones from practical farmers.

Arrival of Durham Stock,

Hearing of the arrival at the stables of R. Allen. 669 Market street, S. F. of a new importation of Durham stock, we were on the alert to obtain a look at them. We found nine animals, of the celebrated Lyndale herd of short horns, recently the property of Col. Wm. S. King of Minneapolis, Minnesota, and by him brought here upon the order of Messrs. Wm. S. Chapman and J. D. Carr, the present proprietors.

At the head of this importation stands the renowned bull "Old Sam" well known to breeders of fine cattle, both in the United States and England. At all the great fairs of the Atlantic States, among all competitors, we are told, he has stood invincible; taking the first prizes over all and everything of his class and age. We have never seen a finer looking animal, almost perfect in symmetry, gentle and docile, in color red, and weighs 2,560 pounds. Was bred by Mr. R. H. Crabb, Great Baddow, Chlemsford, Essex 10,551. Got by Duke of Grafton (21,594.) Dam Roma by Baron Boxwell (21,210).

Probably unmatched in anything that constitutes quality and excellence in a cow, stands 4 years old, Christobell; color red, weight 1670 pounds, bred by—Cruikshank, Littyton, Scotland. Got by Champion of England (17526) Dam Crimson by Windsor Augustus, (19157.) To our mind nowise inferior to Christobell, is another famous cow, Lady Solway, 4 years old, a roan, bred by Mr. J. Beattie, Newbie House, Annan, Scotland. Got by Baronet; Dam Julie by Drake (14419).

Next among this galaxy of beauties is Rose, a roan calved Nov. 15th 1871; got by Old Sam (10551) and Dora, red, calved Nov. 5th 1871; also got by Old Sam. Then we have Miss Dunning, red and a little white, calved March 8th 1871. Got by Standard Bearer, (13293).

Then we have Maid of Atha 3d, red and a little white, calved Dec. 6, 1869, got by 11th Duke of Thorndale, 5,611, Dam Maid of Atha, by Prince, 7,155; and Pet of Geneva, roan, calved Nov. 19, 1871, got by 5th Duke of Geneva, 7,932; Dam Maria by London Duke 4th, 5,906; and lastly, Warrior, a superb young bull, roan, calved Aug. 30th 1872, got by Booth's Marksman, 9,550. Dam the Flower of Warlaby by Baron Booth of Lancaster, 7,555. We would remark that the figures enclosed in parenthesis refer to "Coates' Herd Book;" those not enclosed, to the "American Herd Book."

We cannot but congratulate the purchasers of this excellent selection of pure bred shorthorns, so well satisfied are we of the superior qualities possessed by the several animals, and though collectively they cost delivered here, several more thousands of dollars than there are heads of stock, we are satisfied the present owners would not part with them for less than a considerable advance on cost. Indeed they are not purchasable; but are destined to make their mark upon the future of the herds of their present enterprising proprietors.

Fancy Stock Movement.

On the 16th ult. per steamer "Colorado," Thos. E. Finley shipped to Japan, one hundred fancy rabbits, consisting of Lop-Eared, Angolo, etc. Also twelve fine Chester White sows for breeding.

Among his importations from the East, of the 14th ult. are four gobblers and six hens of White Holland turkeys; which were sold at once to Milton S. Latham Esq. And on the 23d ult. two pairs of Bronze turkey gobblers, 7 months old and weighing 27 pounds each; sold to A. B. Forbes, Esq.

There is a growing interest manifested in live stock circles, to increase the value of their animals by the introduction of the finer and more valuable breeds, upon the basis that it costs but little if any more to raise a good and valuable animal, than it does an ill bred and worthless one; while the satisfaction the grower receives is infinitely on the side of the possessor of improved stock.

PLUMAS COUNTY RAILROADS.—Plumas county is discontented at its railroad isolation, and in default of a big road is talking of a narrow gauge one. They desire some direct communication with San Francisco and propose building a narrow gauge railroad through Beckwith's Pass to the Truckee River at some convenient point of intersection with the Pacific Railroad. A meeting has been held to discuss the project and the people are asked to take stock in the enterprise.

Original Potato.

In onr illnstration we present a branch of the plant and the tubers of the original, native potato, both of the natural size. They are fonnd growing in abnndance among the mountains of South America and in that part of Mexico between Fort Wingate and Fort Defiance. The Navajo Indians inhabit this section and this native potato is one of their chief articles of diet in winter.

By giving this indigenons potato good cnltivation in good soil, the tubers which are from one-halfinch to an inch in diameter, are largely increased in size, so that the third year's product from the native root, are as large as hen's eggs; and by continuing the process of reproduction always from the larger tubers, the fnll-sized potato is obtained and often of good quality; whilst the crossing of this, with some of the old improved varieties is supposed to give a renewed vigor to the plant, and certainly a largely improved prodnct over the yield from the original variety.

About Postage.

By the terms of recent legislation, the franking privilege is abolished, and it is provided that, "All laws, and parts of laws, permitting the transmission by mail of any free matter whatever, be, and the same are hereby, repealed, from and after Jnne 30, 1873." This cnts off the free exchange of newpapers between publishers, and the free circulation of papers within the counties of publication.

No changes in the rates of postage have been made, and, conseqnently postage charges will be as follows:

Letlers.

To all parts of the United States, three cents per half-ounce.

Papers, Etc.

Pamphlets, occasional publications, transient newspapers, magazines, handbills, posters, unsealed cirulars, prospeciuses, book manuscripts, proof sheets, maps, prints, engravings, blanks, flexible patterns, sample-cards, phongraphic paper, letier envelopes, postal envelopes and wrappers, cards, plain and ornamental paper, photographic representations of different types, seeds, cnttings, bulbs, roots, and scions, can be transmitted throngh the mail« at the rate of one cent for each two ounces or fraciion thereof.

Books, two cents for each two ounces or fraction thereof. Samples of merchandise, metals, ores, and mineralogical specimens can pass through the mail in packages not exceeding twelve ounces, at the rate of two cents for each ounce or fraction thereof; to be left open at the ends for examination, and are not to contain no wriiing other than the address.

All liqnids, poisons, glass, explosive materials, obscene books, and all other matter liable to injure the mails or those having charge thereof, shali be excluded therefrom.

Regular Publications.

Newspapers sent by mail must be prepaid by stamps, nnless "regularly issued and sent to regular subscribers" by publishers or newsdealers, when the following ratea are charged, payable quarteriy in advance, either at the mailing or at the delivery office:

Dailies	35 cents.
Six times a week	30 cents.
Tri-weeklies	15 cents.
Semi-weeklies	10 cents.
Weeklies	5 cents.
Semi-monthly, not over 4 ozs	6 cents.
Monthlies, not over 4 ozs	3 cents.
Quarterlies, not over 4 ozs	1 cent.

Newspapers and circulars dropped into the office for local delivery must be prepaid at the rate of one cent for two ounces, and an additional rate for every additional two ounces or fraction thereof; and periodicals weighing more then two ounces are subject to two cents, prepaid at all letter-carrier offices.

The postage on regular papers, etc., mnst be paid in advance, either at the place of delivery, to the carrier, or at the office, otherwise they will be chargeable at transient rates.

Book Manuscript.

Book mannscript passing between authors and publishers reqnires prepayment at the rate of one cent for each two ounces or fraction thereof.

Mannscript intended for publication in newspapers, magazines, pamphlets. etc., is subject to letter rates of postage.

General Rules.

Full prepayment by stamps required on all transient printed matter, foreign and domestic.

All letters not prepaid by stamps, all such as are received in the office with stamps cut from stamped envelopes, or with such postage stamps as were in use prior to 1861, or with revenue stamps on them, are treated as "unmailable" and sent to the Dead Letter Office.

Letters which have not been delivered can be forwarded, without additional charge, upon a written request.

Letters once delivered from a post office cannot be remailed without additional charge.

Departmental postage after June 30, 1873, will be prepaid by special stamps, prepared and furnished by the Post Office Department.

A Question of Pedigree.

Editors Rural Press.—Mr. S. B. Whipple's Catalogue of Thoronghbred Short Horns to be offered for sale on June 17th, contains the following pedigree:

Effie Deans 5th, R & W; bred by S. B. Whipple; calved in 1864. Got by 4th Duke of Northumberland 3870 out of Effie Deans by Prince of Wales 5097 etc., etc.

According to Mr. J. M. Patterson, the importer, and Mr. Bates, the owner of 4th Duke of Northumberland —and in whose possession he was at the time of his death—this bnll died in 1682. How then could he be the sire of a calf dropped 1864.

Perpaps Mr. Whipple, or the gentleman who fixed up his cattle's pedigree, will explain this 'error' and oblige

Wilfred Page.

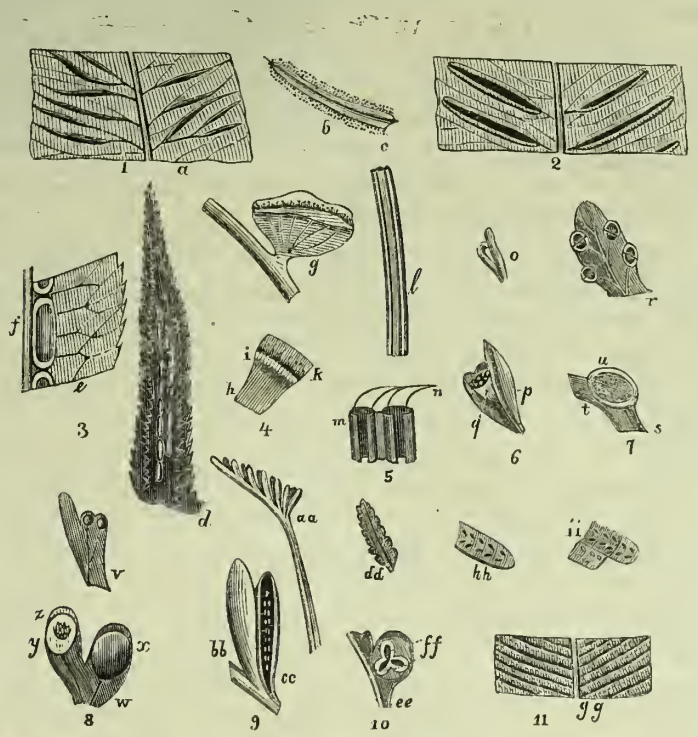
We pnblish the above presnming that a satisfactory explanation can be given, to which onr columns are open.

Oil at San Fernando.—We see by dispatches from Los Angeles, that Clark and Child's Oil Spring at San Fernando, has overflowed the tanks of a capacity of 3,000 gallons and a large amount has run to waste.

On the Fructifications of Dorsiferous Ferns.

Amongst all the great wonders of Natnre, there is nothing perhaps, more remarkable and interesting, than the structnre of the parts of fructification of the genera of dorsiferous ferns, from the circumstance of its being apparently less clear than in many other families of plants. The genera of ferns, almost entirely neglected by the older botanists, and but slightly or superficially touched upon by systematic writers till a comparatively late period, were first attempted to be redneed to fixed principles by Linnæus. He ever anxious to obtain generic characters of plants from their fructification alone, pnrsued this idea, truly worthy of so able a man, in the first edition of his *Genera Plantarum*, printed in 1737, in which he arranged according to this principle, many vegetable tribes, which no botanist had supposed to be endowed with such parts; among others, the *dorsiferous ferns* are here, for the first time presented to us in a well digested systematic form.

Those essential organs of the flowers of ferns, the stamens and pistils, being then unknown, the great author of the Sexual System could by no means form his characters from thence. It was so far however sufficient for his purpose, that he could absolutely tell where those parts if they did exist, resided, and with respect to the fruit in ferns, the formation of which is the only end of the other parts of fructification, its strncture was already clearly ascertained.



DORSIFEROUS FERNS.



NATIVE POTATO (Solanum Fendleri.)

It is evident, however, that the covering or *involucrum* is of the utmost importance in determining the genera of the plants, and it is especially to be noted on what side and in what manner this covering bursts. The *involucrum* is of a membranous nature, and is found in almost every fern, covering the fructification before it arrives at maturity. It originates sometimes from the margin of the leaf, but commonly from some nerve or vein. The *involucrum* adheres firmly to the frond on one side, and on the other is more or less closely pressed to it; not but that even on this side also the air is altogether excluded, so that in whatever mode the impregnation of the flowers is accomplished, the operation goes on in secret under this covering, independent of all external communication. For the membrane closely conceals and embraces every part, till the seed-vessels, being arrived at maturity, are ready to discharge their seeds.

We herewith present to our readers illustrations of such ferns as are *dorsiferous*, and certainly they are very curious, and are additional specimens to the millions that exist in vegetation alone, of the glorious phenomena in Nature.

Explanation of Plates.

Fig. 1. Hemionitis plantaginea.
a. A portion of the frond of its natural size.
b. Fructification magnified.
c. Rings of the capsules.
Fig. 2. Scolopendrium vulgare, a portion of the frond of its natural size, with the fructification in its proper situation, the involucra being already separated.
Fig. 3. Woodwardia radicans.
d. A segment of the frond.
e. Part of the same magnified.
f. Involucrum.
g. A pinna.
h. Part of the same enlarged.
i. Involucrum.
k. Cluster oi capsules.
Fig. Vittaria lineata·
l. Part of the frond.
m. A lesser portion magnified.
n. Involucra.
Fig. 6. Davallia canariensis.
o. A pinnula.
p. The same enlarged.
q. Involucrum.
Fig. 7. Dicksoria arborescens.
r. A pinnula.
s. Fructificaiien magnified.
t. Inner Involucrum.
u. Outer do.
Fig. 8. Hymenophyllum.
v. A portion of the frond.
w. Part of the same magnified.
x Fructification in its natural state.
y. The same forcibly expanded.
z. Capsules.
Fig. 9. Schizæa dichotoma.
a. a. Summit of the frond with the fructification.
b. b. Part of the same enlarged·
c. c. Involucrum.
Fig. 10. Gleichenia polypodioides.
d. d. Partion of a pinna.
e. e. One of its lobes magnified.
f. f. Orifices of the capsules.
Fig. 11. Dancea nodosa.
g. g. Portion of a pinna.
h. h. Double row of capsules magnified.
i. i. Their internal structure.

Patents & Inventions.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[Reported Officially for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., April 29th, 1873.

For Week Ending April 15th, 1873.*

Hydro-dynamic Steam Engine.—Wm. Burnett, San Francisco, Cal.

Music Leaf Turner.—Anthony Rosenfield, assignor to self and Henry Polley, San Francisco, Cal.

Construction of Houses.—David L. Emerson, Oakland, Cal.

Animal Cage Trap.—Sylvester W. Rice, Roseburg, Oregon.

Wood Pavement.—Henry M. Stow, San Francisco, Cal.

Re-issue.

Wind Mill.—Wm. J. Tustin, San Francisco, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Grand Concert.—For some time past the Handel and Haydn Society have been preparing to give a series of three nights of Grand Concert in this city. The well-known repntation of the society as possessing in its members the best talent of the city, caused the lovers of music to look anxiously forward to the time as a rare treat. On the evening of Tuesday, 29th ult., the first of the series was given in the Tabernacle on Tyler street, to a house comfortably filled with the best class of our citizens. The music of the old masters was rendered well, and the hearty applanse and freqnent encores gave sufficient evidence of a performance well-enjoyed by all lovers of the fine art.

The roads between Fresno and Pioche are now in good condition.



I Wonder Why?

BY HOPE ARDOR.

I wonder why this world's good things
Should fall in such unequal shares;
Why some should taste of all the joys,
And others only feel the cares!
I wonder why the sunshine bright
Should fall in paths some people tread,
While others shiver in the shade
Of clouds that gather overhead!

I wonder why the trees that hang
So full of luscious fruit should grow
Only where some may reach and eat,
While others faint and thirsty go!
Why should sweet flowers bloom for some,
For others only thorns be found?
And some grow rich on fruitful earth,
While others till but barren ground.

I wonder why the hearts of some
O'erflow with joy and happiness,
While others go their lonely way
Unblessed with ought of tenderness!
I wonder why the eyes of some
Should ne'er be moistened with a tear,
While others weep from morn till night,
Their hearts so crushed with sorrow here!

Ah! well; we may not know indeed
The whys, the wherefores of each life;
But this we know—there's *One* who sees
And watches us through joy or strife.
Each life its mission here fulfills,
And only *He* may know *the end;*
And loving Him, we can be strong
Through storm or sunshine *He* may send.

Bamboo and Persimmon Trees.

N. E. Whiteside received by the last steamer from Japan, from Minister De Long, two bamboo and a number of persimmon trees, with a request that they be planted and their propagation tested in our soil and climate. The bamboos are well rooted, and the largest one measuring in circumfereuce about twelve inches. Mr. Whiteside was requested to plant one of them beside the large cactus in his door-yard, and the other in some wet and favorable spot. The persimmon trees, numbering twenty or more, are about one foot long, and appear to be in good, healthy condition. There are twenty varieties of persimmons in Japan, some of which are indifferent and others excellent. The samples sent were selected with care, and are believed to be of the best quality. The fruit resembles the plum, and is very astringent nntil frost-bitten, when it becomes very luscious.

There is a large tree growing on the old Briggs' ranch, bnt it has never borne fruit, although annually filled with blossoms. A farmer living near the Honcut has several trees, which have produced some fruit, though very astringent. The bamboo grows in its native soil about forty feet high, aud the largest trees measure six inches in diameter. It is used for buildings, water-pipes, furniture, poles to support palanquins, walking-sticks, musical instruments, etc. Last year John Briggs planted a bamboo tree on his ranch below Yuba City, which grew and sent forth shoots five and six feet in length, and it is still flourishing. We understand that the entire shipment, with the exception of one bamboo, will be entrusted to the care of the above-named gentleman.—*Appeal.*

The Music of the Thrush.

The thrush is scarcely surpassed by any other bird excepting the nightingale, and pours forth his full wealth of song in every varied form, upheaving his parded breast, and looking ont upon the still landscape with bright restless eyes. We hear him singing in the early morning before the round sun has scaled the hilltops; he keeps up his roll of mnsic throughout the day, and closes at night without any apparent fatigue; there is no diminution of sound; no feebleness; he seems more like a good instrument, which, after being played on for hours, sends forth a sweeter sound; he is no weak traveler, who, having gone a long day's journey, drags wearily up the last hill at sunset.

You cannot fail to distinguish his voice from among the warblers of the woods; not that his notes are always alike, but there is some regular modulation, or natural sweetness, which, however, varied, "still does not touch the strain prolong;" and you know it is his own, and could not be deceived even if he had hidden himself in the carcass of an owl.

EXAGGERATION.—Our friends at the East are always fond of getting off a good thing when they can, on what they call "California exaggeration." As an instance, an Eastern jonrnal recently remarked that "No well-regnlated California family is without a slop-bowl, scooped out of a $250,000 ruby."

Have a Specialty.

It does not matter what a man's vocation may be—whether a farmer, mechanic, physician, lawyer or literateur—he should have some specialty to which he may devote his leisure even if it be in the line of his vocation. Yes, if you prefer the term, let him have a hobby! We do not mean he shall ride his hobby at all times and in all places and on all occasions, but he should select some special department of scieuce or industry for investigation and research—to master in all its details. Doing this, he will, perforce, enlarge his general knowledge and the scope of his usefulness. Indeed it is wise for a farmer to take up some specialty in agriculture in which to excel—not upon which he shall depend exclusively, and to which he shall devote all his energies, but in the prosecution of which he shall take especial pride and pains, and upon which he shall become known as a reliable authority, as well as having the best of that special product that can be grown.

We do uot urge this because we think it will prove in all cases, a money-making adventure, but because we believe in the wholesome influence of motive upon the general life and success of men—because we know that specialists are more likely to have accurate as well as general knowledge than those who live and labor without any particular objective point which they are especially aiming to reach. Let one man take up beans for example, procure and cultivate all the varieties he can hear of, study their respective habits, learn to know their season of ripening, their nutritious qualities, peculiarities of flavor, their history, and the enemies which attack them, and he will find an interesting field for investigation opening before him, which will expand yearly and increase not only his knowledge but his fame. Let such a man once become known as "the bean man" in a community, and as growing all sorts that can be grown in his climate, and such a reputation will be valuable in a pecuniary point of view. So of potatoes, corn, tomatoes, peas, or whatever crop one may choose to adopt. By all means, have a specialty.—*Rural New Yorker.*

HAIR DRESSES.—Womeu usually like something which gives them height, piquancy, and, above all, conspicuousness. They are not to be blamed for this. A womau's *role* is to attract, and when she has attracted to enchant. But in following this aim too zealously she often outruns the scent by a long way, after the fashion of young and inexperienced hounds. A woman ought never to forget that sometimes in gaining a little she loses much. As, for instance, when the hair a few years ago was turned up with a sweep, and the bonnet dwindled to a tuft, every woman gladly threw aside the "curtain" which had shielded her throat from the sun, and every woman lost her white neck. Again, when a little hat was worn like a round target against a mountain, women said they were going to shade their eyes, but in reality they only sacrificed the whole of the forehead and eyebrows (usually the best part of the face, to the most unmeaning saucer that ever rested on a snub. The Normans brought in the fashion of long plaits of hair, reaching to the hips, and sometimes bound with ribbons or incased in silk of various colors—a pretty fashion, but one that made some additional head-dress requisite. Soon after appear the strange head-dresses which we must discuss in detail, and wherein we may see how the simplicity and utility of the earlier times that had so mnch beanty in them had given place to a vain craving after more beauty, which grew less and as the fair wearers sacrificed more and more convenience, sense and propricty in its pursuit.—*St. Paul's Magazine.*

BOYS AND GIRLS.—"I like boys," says a popnlar writer for the little folks. "Girls are very fine and sweet, like flowers and oranges; but boys are like apples—that is, they always remind me of apples, because apples are such solid, wholesome, good-natured, everyday sort of things, that keep well and possess real character. I do not mean to say that girls have not characters and other noble qualities, bnt I am talking of boys now.

As everything in this world is sure to have something back of it, so the boys have their mothers—or have had them. Of conrse they teach you to speak the trnth, that it is wicked to cheat or steal, to fight or to swear. One might be a heathen and know better than to do those things. Then your mothers tell you "to behave." It is this "behaving" busines I am after. A man who was once a boy and is now a man, and whose name is Emerson, says this: "Give a boy address and accomplishments, and you give him the mastery of palaces and fortunes wherever he goes. He has not the tronble of earning or owning them; they solicit him to enter and possess."

INTERLUDES IN LIFE.—Let music and other elegant accomplishments take their proper ranks; they are pleasant as interludes in the great drama of life's dnties.

Supposed Discovery of the Queen of Sheba's Palace.

M. Mauch, an African traveler, thus writes: I believe I have found the real Ophir, in lat. 20 deg. 15 min. S., long. 26 deg. 30 min. E., and I think I possess proofs of the fact. The ruins which have been so often spoken about are composed of two masses of edifice, in a tolerably good state of preservation. The first is on a mountaiu of granite; and, amoug other constructions, is to be remarked one which is an imitation of the Temple of Solomon, being fortress and sanctuary at the same time, the walls of which are wrought granite, without mortar, and still being more than 30 ft. high. Beams of cedar served as ceilings to the narrow and covered galleries. No inscription exists, bnt only some special designs of ornamentation which announce great antiquity. The whole western part of the mountain is covered with blocks of great size, which seem to indicate terraces. The second mass of ruins is situated to the south of the mountain, from which it is separated by a low valley; it retains a well-preserved circular form, with walls constructed as a labyrinth, also without mortar, a tower still exists, 30 ft. high, 17 ft. in diameter at the base and 9 ft. at the top. The circular edifice is accompanied by a large number of others situated in front, and which doubtless served as the habitation of the Queen of Sheba's suite. I have drawn, not without difficulty, a general sketch and a plan of this palace. I was confirmed by the natives themselves in the idea that these ruins date back to the Queen's time. Forty years since sacrifices were still offered up on the mountain. The natives still call the circular building the House of the great Princess."

SILENT INFLUENCE.—It is the bubbling spring which flows gently, the little rivulet which runs along, day and night, by the farm house, that is useful rather than the swoolen flood or warring cataract. Niagara excites our wonder, and we stand amazed at the power and greatness of God there as he "poured it from the hollow of his hand." But one Niagara is enough for the continent of the world, while the same world requires thousands and tens of thousands of silver fountains and gently flowing rivulets, that water every farm and meadow, and every garden, and that shall flow on every day, and every night, with their gentle, quiet beauty. So with the acts of our lives. It is not by great deeds, like those of the martyrs, that good is to be done; it is by the daily and quiet virtues of life—the Christian temper, the meek forbearance, the spirit of forgiveness in the husband, the wife, the father, the mother, the brother, the sister, the friend, the neighbor, that good is to be done.

TOO GOOD A RECOMMENDATION.—A patent-medicine vender in one of our principal cities was dilating to a large crowd upon the wonderful efficacy of his iron bitters, pronouncing them the great pinacea and all-potent in building up an "iron constitution."

"That is so—that is so," said a bystander. "What he tells you is a fact, gentlemen— every word of it."

"Hear that will you? cried the delighted quack; "here is a living testimony right before your own eyes—a man who has used the bitters, and can recommend them."

"No; not exactly that," replied the old fellow; "I have never used the stuff myself, but, you see, Steve Jenkins did, and they jest saved his life."

"How's that?" questioned some one.

"Well, you see, Steve had taken the bitters just one week before he was shoved in prison for murder. He was stripped of everything in the shape of iron about him, and yet he made a bar and worked his way out."

"BREAD AND CHEESE AND KISSES" is the quaint title of a charming work by a popular author—Mr. Farjeon. It is, in fact, an Australian story; is told with mnch pathos, and with a fidelity to nature seldom met with in fiction of the present day. Its production has added largely to the popularity of the author; aud since its appearance there are those who say that the mantle of Dickens seems to have fallen upon Farjeon.

HAND-SHAKING.—Etiquette does not require persons to shake hands when introduced unless they feel inclined to do so.

THINK BEFORE YOU SPEAK.—Expressions harmless when first let fall, receive their venom from the channel through which they are conveyed.

YOUNG FOLKS' COLUMN.

A Brave Boy Officer.

It was at the battle of Montmirail that Napoleon found it necessary to dispatch an order to one of the officers of the division and he hastily called to a young officer, who had entered the service from one of the boy regiments of France. "Take this order, sir, spare neither yourself or horse. There is not a moment to lose."

Smoke rolled in black clouds over the field, and shot and shell rained through the air.

The young officer soon returned.

"Nobly, nobly, monsieur," said Napoleon. "Although you are a youngster I give you a Captain's brevet. What is your name?"

"Durosier, Sire."

"It seems familiar. Where have I heard of it before?"

"I was Colonel of the boy battalion, your majesty."

"That is another reason why I should raise you in rank."

"It is too late sire," replied the youth, a shade coming over his face.

"Too late?" Why?"

"Because they hit me." As he said this he drew his handkerchief from his breast dripping with blood.

He was dying.

"It will soon be over," he said "*Vive l' Emperor, Vive la France!*"

He reeled in his saddle, and fell into the arms of a soldier.

"So young, so young!" said the Emperor with feeling—"So brave; poor boy, poor boy!"

The moon and stars came ont on the ghastly field of Montmirail, and shown on the dead form of no braver hero than Timolean Durosier.

Accuracy.

Boys, listen to what President Tuttle says: I was a young man once in the office of a Western railway superintendent. He was occupying a position that four hundred boys in that city would have wished to get. It was honorable and "it paid well," besides being in line of promotion. How did he get it? Not by having a rich father, for he was the son of a laborer. The secret was his beautifnl accnracy. He began as an errand boy, and did his work accurately. His leisure time he used in perfecting his writing and arithmetic. After a while he learned to telegraph. At each step his employer commended his accuracy and relied on what he did, because he was sure it was jnst right.

And it is thus with every occupation. The accurate boy is a favorite one. Those who employ men do not wish to be on the constant lookout, as though they were rogues or fools. If a carpenter must stand at his journeymau's elbow to be sure his work is right, or if a cashier must rnn over a book-keeper's columns, he might as well do the work himself as to employ another to do the work in that way, and it is very certain that the employer will get rid of such inaccurate workmen as soon as he can.

OUR FRIENDS IN HEAVEN.—"When I was a boy, I thonght of heaven as a great, shining city, with vast walls and domes and spires, and with nobody in it except beautiful angels, who were strangers to me. By and by my little brother died, and I thought of a great city, with walls and domes and spires, and a flock of cold, unknown angels, and one little fellow that I was acquainted with. He was the only one I knew in that time. Then another brother died and there were two that I knew. Then my acquaintances began to die, and the flock continually grew. I had so many acquaintances in heaven that I did not see any more walls, and domes, and spires. I began to think of the residents of the celestial city. And now there have so many of my acquaintances gone there, that it sometimes seems to me that I know more in heaven than I do on earth."

HOW TO BE HAPPY.—What does happy mean? A little girl lately said, "It is to feel as if yon wanted to give all your things to your little sister." The child felt that to be happy she must be unselfish. She was right. Did you ever feel happy when yon had selfish feelings in your heart? I think not, indeed!

SLANDER is often owing to the want of mental culture, and hardly any thing produces greater misery, where it extensively prevails.

Stock Notices.

M. R. COVEY. C. M. CHASE. J. N. KILLIP.

KILLIP & CO.,

Stock and General Auctioneers,

209 SUTTER STREET, SAN FRANCISCO.



GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continning from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stalliona, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cowa and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood marea are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not preaumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of aale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, aixty days at one per cent. per month, with approved city acceptancea.

Catalogues are being prepared, giving full description and pedigreea of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

MAURICE DORE & CO., Auctioneers.

Thorough-Bred Stock at Auction.

ON TUESDAY,

May 13, 1873, at 11 o'clock A. M.,

AT SAN MATEO,

AT THE DAIRY FARM.

We shall sell the well known herd of DURHAM STOCK belonging to the

Howards of San Mateo:

280 Head of First-Class Stock,

CONSISTING OF

Thorough-Bred Bulls,
Thorough-Bred Cows and Heifers,
High-Grade Cows,
Heifers and Calves.

The grades are the product of the best selected stock in the country (many of which came from Henry Clay's celebrated herd), have been always bred to thorough-bred bulls, viz: "Orion," "Young Belvidere," "Harrold IV," "Cyrencester Duke," "Duke of Northumberland," "General Halleck," "Water Prince," "Wm. Dean," etc.

Also, TWO FINE STALLIONS,

Four and five years old, by "Royal Clyde," out of "Dublin Kate;"

Twenty Head of Fine American Horses, Mares and Colts.

For particulars and catalogues apply to GEO. N. SWEZY, Marysville; GEO. H. HOWARD, 523 Montgomery street, San Francisco; S. G. GOODHUE, San Mateo, or at our office. MAURICE DORE & CO.,
a19-4t Auctioneers.

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WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.



Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alsmeda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durhsm blood. 12v5-3m

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TO DAIRYMEN, OWNERS OF HORSES, AND STOCK DEALERS

We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent.; and the report further says that if the "Farmers would note the differences in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and same at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

The Meal can be had of the HAY AND GRAIN DEALERS of the city, and all orders will receive prompt attention.

☞Purs raw and boiled Linseed and Castor Oil constantly on hand; also, a very superior article of Metalic Paint—the best and cheapest in market. Address

PACIFIC OIL AND LEAD WORKS,
P. O. Box, 1443, San Francisco.

Office, 3 and 5 Front Street, Works, King St., near Third.
15v5—3m

Great Cattle Sale

—AT THE—

WALSH RANCH, COLUSA COUNTY, CAL.

—ON—

Wednesday, April 30th, 1873.

The undersigned will offer for sale at public auction, at the WALSH RANCH, in Coluaa County, Cal., on WEDNESDAY, APRIL 30th, 1873, commencing at 10 o'clock A. M., some

Ten or Twelve Hundred Head of Fine American Stock Cattle.

The reputation of the Cattle bred on the above named Ranch is well and favorably known, and the lot now offered for sale is regarded by competent judges to be unequaled by any band in the State. Among these Cattle are to be found a fine lot of young Bulls and some superior Milch Cows. The sale will be made in lots to suit purchasers.

There will also be offered, after the above, some fine Thoroughbred Stock, with full and complete pedigrees.

The HON. JOHN BOGGS, of Colusa County, will conduct the sale.

TERMS OF SALE—Cash, U. S. gold coin.

an19td S. E. CHAMBERS.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.



—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crossea between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
19v4-tf Hollister, Monterey County, Cal.

Jersey Cattle.

I have now for sale, and will be in regular receipt of,

Imported and Thoroughbred Jersey Cattle,

WITH AUTHENTIC PEDIGREES.

Their reputation for Butter stands unequalled.

R. G. SNEATH,
15v5-2m Menlo Park, Cal.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
5v3-eow-tf California.

THOROUGHBRED STOCK.

Thoroughbred Cattle, Sheep and Swine for sale. Also eight graded Short-horn Durham Bulls, and one hundred yearling Heifers, and three hundred calves same grade, and all of the best Milch stock; calves to be taken away in July. Also twelve to fifteen hundred head of

RODEO CATTLE,

The best band of Rodeo Cattle in the State, half to three-quarter Short-horn or Devon grades; cattle to be taken away by the 1st of September, 1873.

WOOL Stored, Graded, Packed and Shipped on the very lowest terms.

ROBERT BECK.
Sacramento, April 2, 1873. a26 4t

SHEEP PASTURES.



The undersigned has 8,500 acres of Reclaimed Tule Lands, affording the best of Clover and Grasa Pasturea for Sheep, Cattle or Horsea. Would exchange part of the land on fair terms for Sheep. These lands, if sown with Alfalfa, or any good Grasses, Wheat or Barley, will keep at least ten (10) head of Sheep per acre. For particulars call on or address the undersigned, at 401 California street, San Francisco. A. G. KIMBELL.
a26-4t

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40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

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SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

The Trotting Stallion NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderbilt in three straight heats in 2.25½, 2 25¾, 2.24¼. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25½, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Nauhuc Farm, San Lorenzo. Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,
12v5-9t 637 California street, San Francisco.

EGGS FOR HATCHING,

From the Finest Stock of Imported Fowls in the State.



OF THE FOLLOWING VARIETIES:

BUFF, PARTRIDGE, BLACK AND WHITE COCHINS, AND LIGHT AND DARK BRAHMAS.

My method of packing Eggs insures their safe carriage.

EXTRA FINE Fowls for sale at moderate rates.

All letters promptly answered and inspection of stock invited.

Yards—Corner Fifth and Alice streets, Oakland, Alameda County, Cal. Address

C. W. WILSON,
6v5-2m Lock Box 1874, San Francisco, Cal.

Imported Fowl of All Choice Breeds,



ALSO EGGS FOR HATCHING,

From all the different varieties; packed carefully to send any distance.

ALBERT E. BURBANK,

Stalls, 43 and 44, California Market,

SAN FRANCISCO.
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FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
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THE

PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

Working Class, MALE OR FEMALE, $60 a week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 173 Greenwich st., N. Y.
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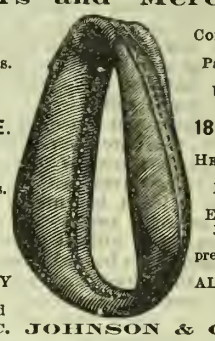
EPIZOOTIC, YIELD!

Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H. H. H. Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

WILLIAMS & MOORE, Proprietors,
Stockton, Cal.
For sale everywhere. 12v5-3m

Farmers and Merchants,



Examine our HORSE COLLARS. Adopted by BEST IN USE. ALL GRADES. No complaints. No repairing. Don't believe FOR SALE BY Manufactured

COPPER RIVETED Pat. Nov., 1861. U. S. Army. 18,000 SOLD. HEAVY & LIGHT. No ripping. Examine for yourselves. prejud'd parties. ALL DEALERS only by

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104 FRONT STREET. SAN FRANCISCO.
Dealers in Harness, SADDLERY, Leather, etc.
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BEST SHADE IN THE WORLD!

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The Rustic Window Shade.

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This New and Elegant article of manufacture

Is Fast Superceding all other Styles of Window Shades in Use

Wherever it has been introduced and its merits tested.

It is made of Wood, is Light, Strong and Extremely Durable.

It Lowers from the Top or Raises from the Bottom,

And forms a complete and the only substitute for Inside Blinds.

When soiled it can be cleaned with water without the slightest injury.

Its fixtures are simple, work to perfection, and never get out of order.

Our facilities for the rapid manufacture of a perfect article are now such that we defy competition in quality and price with any window shade in the market. Orders for any quantity and of any size promptly filled at

THE PIONEER FACTORY

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HOLLIHAN & BEARDSLEE.

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A Day and Boarding School for both sexes; the only Institute on the Pacific Coast where a thorough Academic and business education can be obtained.

The Business College Department

Is under the supervision of James Vinsonhaller, who for many years was at the head of Business Colleges of San Francisco.

The Twenty-Second Session commenced January 20th, 1873.

For circulars address

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fb22-3m JAMES VINSONHALLER.

A GREAT UTILITY!

STRAW FOR FUEL!

A Ton of Straw Equal to a Ton of Wood in Making Steam!

The Patent Straw-Feeding Attachment to Steam Furnaces for using STRAW AS FUEL for THRESHING ENGINES.

MOREY'S PATENT—No danger of Fire—The great expense and difficulty of obtaining wood on treeless plains and valleys overcome.

These attachments can be put on any furnace in the field by an ordinary mechanic. For sale by

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Sole Agents for Patentee,
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ARCHITECT J. J. NEWSOM No. 430 MONTGOMERY ST. S. F.

[Continued from Page 277.]

essary canals. Now let us all pull together this one time and see what we can do.

EL DORADO.

Republican, April 24: BEAUTIFUL RAIN.—On Saturdsy night we had a moderate rain of several hours duration and 1.20 inches fell. This will he a vast henefit to the growing crops, and will insnre a good hsrvest. Some of the late sown grain msy have been psst redemption hefore this rsin, hnt from all acconnts there is hut little that hss suffered.

FRESNO.

Expositor, April 23: NO RAIN YET. — This seems the strangest season ever experienced in California. We do not remember since our residence in the Stste the months of March and April to pass without two or three showers of rain until this. It is now nearly two months since a drop of rain has fsllen in the sgricultural reigons of this county. It is almost useless to deny the fact that our grain crops will he more than a psrtial failnre.

Iu view of these facts it behooves all of our farmers who can, to secure a few acres of land, if no more, contignons to some one of the irrigating canals, and cultivate cotton. By this means the year will not he entirely lost, and those who cau cultivate twenty-five or thirty acres of the staple will ultimately he gainers, as more clear money can he made from twenty acres of cotton than from one hnndred and sixty acres of wheat. Do not stand and cry, "No rain yet," hnt go at once and secure a tract of lsnd and plant cotton.

A wind-mill and pump, with an ordinsry well will afford sufficient water to irrigate five or six acres of land, and that number of acres will return the farmers a few hundred dollars which will be far better than to lie idle and make nothing at all.

Since the above was in type namely, on Snnday night, a drenching rsin which continued for fonr or five honrs occnrred, and has been of great benefit to the crops of this county and has put a far more chcerfnl appearance upon the faces of our farmers.

MARIN.

Journal, April 24: An inch and one-tenth of rain fell here on Sunday, and a spsde revesled that it soaked the earth down to the old moistnre.

MARIPOSA.

Gazette, April 25: THE WELCOME RAIN.—The sultry weather of Saturday and Sunday last, was followed hy a light fall of rain. It commenced at ahout dark on Sunday evening and continned, with hut slight interruptions, till sun-rise the following morning. It has done some good, hnt we need more of it. Farmers are hopeful, that now the spell is broken, we may have a repetition of the dose of an increased quantity.

MERCED.

Tribune, April 26: RAIN.—Sunday last, this section was visited by a slight shower of rain not enongh we are sorry to say, to he of mnch benfit to the parched crops. From what we can learn, half a crop is all that can be expected hy the farmers in this section of the valley.

MONTEREY.

Democrat, April 26: THE rain fell here Sun day night, in light showers, refreshing v ege tation very mnch. Next the hills east of the town the rain-fall was more copions, it being estimated that in the Natividad Cañada, for example, there was half an inch.

GRASS in the hills this year is not as good as in the plain, frost having kept its growth back when rain was ahundant. It is short in the Tularcitos country, and heyond the Carmolo.

SAN JOAQUIN.

Independent, April 23: THE CROPS AT CROW'S LANDING. — George W. Boggs, writes from Crow's Landing, on the San Joaquin river, to Captain J. W. Smith, of this city, as follows: The early sowed grain and volnnteer is literally dried up and past redemption. The winter sown grain still retains a good color, but is very much injured by the continned dronth and must soon necessarily sncenmb to the withering sun and blasting winds. I don't expect even a partial crop. One month ago I had the promising assurance of twenty thousand sacks of wheat; now I don't expect to harvest anything but a little barley. It is indeed distressing to see the vast fields of grain perish after snch flattering prospects." This letter was written on the 18th instant, before the late rain.

Argus, April 26: DRY AND WINDY. — Farmers are disheartened in consequence of the continnance of dry, windy weather, and thongh the grain continnes green many predict a light harvest. The evenings and morninga are cool, however, and rain at any time within the next two or three weeks will be of great service in filling out grain. There is no calculating the valne to the county of a good shower of rain at the present time, and even cool, clondy weather for a week or two would do a great deal of good. Farmers think that wheat upon snmmer-fallow lands will make an average crop even without more rain and that early winter sowed crops will make something about half crops; bnt the chances of late sown fields making anything are very slim. We have for years past advocated in these columns deep tillage and summer-fallowing, and those who have adopted that system are now reaping the benefits. In fact, the doctrine of little farms well tilled must eventually prevail in this valley, and the sooner large landholders divide up their farms and adopt a proper system of tenantry the better will it be for them and the country.

SAN LUIS OBISPO.

Tribune, April 26: THE WEATHER AND CROPS. — We deferred writing of the weather for the past three weeks with the expectation of having the pleasure of chronicling the advent of the much-needed rain for which the farmers have been praying, and of which the crops have stood badly in need for the past month, but our hopes and expectations have not been realized. Unless it rains within the next ten days the late-sown grain will be a failure in this section; iu fact, much of it will scarcely be worth cutting for hay. From the San Francisco papers we learn that a general shower fell throughont all that part of the country north of Monterey, of sufficient quantity to ensure crops against the possibility of a failure. Why could not Jupiter Pluvius be a little more impartial, and extend his aqueous blessings farther southward. We are happy to state that at the present writing the appearance of the sky portends a shower; we hope it may come.

SANTA CLARA.

Advocate, April 26: THE WELCOME RAIN. --Last Sunday morning between 10 and 11 o'clock, a slight rain commenced falling, which was kept up at intervals dnring the day. At night it rained much heavier, and np to twelve or one o'clock sufficient had fallen to saturate the ground thoronghly. The benefit of this slight shower has been immense, and even the next morning it was readily perceptible in the fresh and bright appearance of vegetation.

From our conversation with farmers and others posted in such matters we learn that this small favor has put at rest all apprehensions of a failure of crops in this valley. A dry wind followed the rain, which of course absorbed the moisture to a certain extent, and the beneficial effect was consequently not as great as it would have been had the atmosphere been mild and warm for the few days succeeding. However, we have much to be thankful for, and should another shower come within a short time, the brightest anticipations of onr farmers will yet be realized.

SONOMA.

Flag, April 24: A BOUNTIFUL RAIN.—Sonoma connty has reason for thankfnlness. Last Sunday it commenced raining lightly at about 11 o'clock A. M. In the afternoon the rain came down quite vigorously, and continned till late in the evening. The rain-gauge at the depot shows that 1.45 inches of rain fell during the day, which is much more than has been reported from any other point. The result is that we have an abundance of rain and crops will probable be all that conld be reasonably expected. At Santa Rosa the rain-fall was .61 of an inch. The rain extended from Yreka on the north to Visalia on the south, and from the Sierras to the sea.

STANISLAUS.

News, April 18: THE OUTLOOK.—At this writing—Wednesday evening—the ontlook for a large crop is not very flattering. We have had next to no rain at all since the last week of February, consequently the dry northwest winds are telling severely upon the crops. Still a great deal of the younger grain is nninjured. It is thought, however, that the greater portion of the volnnteer crop, on hard soil is seriously threatened, if not entirely injured. Fortnnately, however, we have this year a limited number of voluntcer fields of grain. Reports also say that many fields of the Fall or dry sown grain, is also greatly in need of rain. The late sown grain of both barley and wheat is yct vigorous, and only requires a very small amount of rain to make good crops. Taking it in all so far, the drouth has only injured or lessened the yield for the season, especially where the land has been tilled in a slovenly slip-shod manner. The ground is warm and in a splendid condition for the maturing of crops, should it rain within the next week or so. The real damage thus far we do not believe amonnts to anything more than a good big scare.

TULARE.

Delta, April 17: MUSSEL SLOUGH.—Great improvement is noticeable in this settlement within a year or two, notwithstanding the great obstacles that have to be overcome. A plentifnl supply of water has been introduced in the lower settlement, and its resnlts are all and more than all that was expected. We have seen no better looking grain this season than is now growing on some of the ranches.

The heavy winds two weeks ago have lodged some of it, but without irrigation or rain the harvest will be sure. Other patches sowed at different times will fail without rain, but some will be saved by irrigation. Fruit trees and vegetables are doing finely. Several parties have large bee gardens, and the swarms are active and making the best honey in the State.

Several parties are going extensively into the poultry propagation for the San Francisco market. T. Jinkinson has set over 2,000 turkey eggs. He has admirable arrangements for this pnrpose. Several of the settlers who got water last year we noticed are surrounding themselves with the luxuries of life, so far as a bountifnl table is concerned. The luxuries of wild game and fish from the Lake abonnd, and are quite common to the table of "ye poorest inhabitant." The People's Ditch has a strong force of men now engaged on it, and the settlers seem to be pnshing it forward with determined vigor. The Spangler Company are also doing their level best. The lands of this whole district, from Kingston above and below, are unsurpassed for richness in the State, and will soon be the active scene of a teeming population, cmploying all the arts of civilization.

From two pounds of seed Mr. John Hemlin, raised 80 pounds of rice last year, and encouraged thereby, has gone into the business this season to the extent of several acres.

Alfalfa Culture.

EDITORS RURAL PRESS:—As the attention of farmers and more particularly stockmen is now directed to the growing of alfalfa, I contribute what information I have gathered on that subject both from my own and also what I have learned from the experience of others. When irrigated, alfalfa will grow on every variety of soil and in this section produces eight crops of 1¼ tons, or 12 tons of fine hay each year. When irrigation is used, the land should be made perfec ly level, and divided into lots, of from one to four acres, by embankments one foot high; the size of the lots depending upon the head of water for irrigation.

By this plan irrigating is no tronble, the gate is opened and when the water is one, two or three inches deep over the lot close it again, the lot should not he larger than can he filled in an hour, on heavy lands too mnch water does harm, the aim should he to pnt on about as much water as falls in a good rain, and no more, and when using the water from a well, or small stream, the waters should he collected in a reservoir until the qnantity is snfficient to cover the lot to the required depth; there is another advantage in this plan, by exposnre to the sun and air in the reservoir, the water becomes warmed before being used. But as in most cases it is difficult, in fact, almost impossible, to irrigate on a large scale. I will now write about the cultivation of

Alfalfa Without Irrigation.

I will first observe that I have been noting the cultivation of this plant, in this State, for the past 20 years, and I have in no instance seen it succeed without irrigation, except upon alluvisl soils such as are found in the low flats along the margin of rivers. The conditions of successful cultivation are a friahle, mellow, moist soil easily penetrated by the long tap roots, which shonld find a permanent supply of water at a depth of not more than six to eight, and not less than three feet, the land should he thoroughly plowed and the surface crust well pulverized, and about 15 pounds of clean seed sown per acre, and brushed, in (heing careful not to cover it too deep), just hefore the first rain in the fall.

In this way the plant will have got its third set of leaves hefore the first frost is likely to occur; after the plants are six inches high, it is safe to pastnre it by sheep or horses, hut cattle should not he permitted to pasture upon it until it has been either mown or fed down once as they are liahle to pull it up by the roots; after mowing it puts out lateral roots, has a firm hold npon the ground, and is then safe. Our valley lands sown with alfalfa, will without irrigation easily snstain 10 sheep, or two horses, or two horned cattle, per acre, constanly from yesr to year.

To show that the above estimate is quite within bonnds, I will state that two years ago, Messrs. White and Denman, (whose place is located in this valley, and whose land is no better than the average) had 15 acres of alfalfa, it was about half a stand, there were not more plants on it than should have stood upon one-half the quantity of land. Onr rainfall that year was 5¼ inches, and notwithstanding that the 15 acres of land snstsined 25 head of large American horses and short horn cattle and also 25 head of fine merino bncks; none of these animals, got any other feed, except the horses, and they only when they were at work. I visited the place in the driest part of the season, and the stock were all fat, and Mr. Deuman who was in charge, assnred me, that bnt for his alfalfa, it would have taken all of his graiu crop to have kept his stock alive.

Pasturing Grasshoppers.

In addition to the stock mentioned above, it mnst be remembered thst this was not only a dry sesson, bnt the whole valley had also been devastated hy grasshoppers, which having esten the snrrounding lsnd entirely hare, had pald psrticular attention to this alfalfa patch, bnt it had triumphantly snstained them all—horses, cattle, sheep and grasshoppers! and continned to grow as fast as it could be eaten off. It wss eight feet to wster on this land, which had never heen irrigated, snd could not be, there being no ditch.

Messrs. White and Denman are seeding the whole of their 3,000 acre tract in alfalfa, and when they have snceeeded, will he able to keep 30,000 sheep upon it; this is sheep raising reduced to a mathematical certainty; then stock will have abnndsnt feed without regard to rsins, and with their ever growing psstnres they will have no dread drouths or autumnal fires, their sheep always fat will produce a long and strong stsple and as it will he free from hnrr and alfilarea seeds, will alwsys commsnd the highest market price.

The lambing season instead of coming during the winter storms csn be msde to occur st any season of the year; with a constant supply of grain feed two crops of lambs can he raised in one year, or three in two yesrs st the pleasure of the shepperd; hy dividing the pastnres into convenient sized fields, herding is dispensed with, it heing well known thst when sheep are not herded, a pasture will sustain three times the number, as they do not destroy the feed with their feet; they hreak np into small hands and walk in paths like cattle. Four enclosures will he snfficient for one band of sheep, the grass growing in the nnoccnpied ones fast enongh to keep up the supply, hy this system no weeds can live ss the stock will eat each pasture clean in tnrn.

This grass is particularly adapted to dairying in fact to any kind of stock. There are not less than three hundred sqnsre miles in the valley on which alfalfa will do as well as the above without irrigation. These lands can now be pnrchased at from $15 to $20 per scre on easy terms, and the expense of hreaking np new lands thoroughly and seeding with alfalfa will not exceed $8 per acre. If planted as I snggest in the fall it will yield a large crop the first year.

On most of these lands flowing artesian wells can be obtained at a depth of from one to three hundred feet, and surface water at a depth of ahout seven feet. As these same lands are also adapted to the prodnction of semi-tropical fruits, vines, etc., in less than five years with the influx of population they will have advanced five-hnndred per cent in valne. So that the purchaser will mske his profit both on land snd stock, and will be making money, whilst his plantations are growing. After the semit-ropicals hegin to hear, no man is likely to bother mnch with sheep or anything else; the owner can afford to take life easily.

The Texas Pacific will csrry onr fruit overland in spite of northern snows and ice,

WM. R. OLDEN.

Anaheim, April 20th 1873.

AT a meeting of a Stock-Raising association in Western Texas, not long since the members passed a resolntion as to prices the cattle men or their agents would sell beef cattle. They fixed three grades. The first at $18; the second at $16; the third at $13. Cows were classed in the third grade.



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Publishers, Patent Agents and Engravers, No. 338 Montgomery street, S. E. corner California, S. F.

JAS. DOYLE, a late resident of Watsonville, is requested to address this office. Information of his present address is solicited.

Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Dif. Bet. Mail & Tel	Dif. Bet. S. F. & Tel.
FEB. 15	1 86¼	2 93@2 95	.....	.....	.....
" 17	1 87½	2 93@2 95	.....	.....	.....
" 18	1 87½	2 93@2 95	3 01@3 26	19½	1.06½
" 19	1 87½	2 93@2 95	.....	.....	.....
" 20	1 88	2 93@2 97	.....	.....	.....
" 21	1 83¾	2 89@— —	2 99@3 24	22½	1.15
" 22	1 83¾	2 89@2 91	.....	.....	1.06¼
" 24	1 82½	2 89@2 91	.....	.....	1.07½
" 25	1 82½	2 85@2 87	2 89@3 13	15	1.03½
" 26	1 82½	2 85@2 87	.....	.....	1.03½
" 27	1 75	2 83@2 85	.....	.....	1.09
" 28	1 75	2 81@2 87	.....	.....	1.09
MAR. 1	1 75	2 81@2 87	.....	.....	1.09
" 3	1 75	2 81@2 87	.....	.....	1.09
" 4	1 75	2 81@2 87	2 89@3 13	6	1.09
" 5	1 75	2 82@2 89	2 77@3 03	17	1.10½
" 6	1 75	2 84@2 90	.....	.....	1.12
" 7	1 75	2 85@2 91	2 99@3 05	.....	1.13
" 8	1 80	2 85@2 91	.....	4	1.08
" 10	1 80	2 85@2 91	.....	.....	1.08
" 11	1 80	2 85@2 91	2 93@3 05	11	1.08
" 12	1 80	2 85@2 91	.....	.....	1.08
" 13	1 80	2 85@2 91	.....	.....	1.08
" 14	1 80	2 89@2 91	2 89@3 01	5	1.10
" 15	1 80	2 89@2 91	.....	.....	1.10
" 17	1 80	2 81@2 87	.....	.....	1.04
" 18	1 80	2 81@2 87	2 87@2 99	9	1.04
" 19	1 80	2 81@2 87	.....	.....	1.04
" 20	1 80	2 79@2 83	.....	.....	1.01
" 21	1 80	2 79@2 83	2 87@2 99	12	1.01
" 22	1 80	2 79@2 83	.....	.....	1.01
" 24	1 80	2 79@2 83	.....	.....	1.01
" 25	1 80	2 79@2 83	2 83@2 91	6	1.01
" 26	1 80	2 79@2 83	.....	.....	1.01
" 27	1 80	2 79@2 83	.....	.....	1.01
" 28	1 80	2 79@2 83	.....	.....	1.01
" 29	1 80	2 77@2 81	2 81@2 89	6	99
" 31	1 80	2 75@2 79	.....	.....	97
APR. 1	1 80	2 73@2 79	.....	.....	96
" 2	1 80	— —@— —	.....	.....	96
" 3	1 82½	2 71@2 81	.....	.....	93½
" 4	1 82½	2 71@2 81	.....	.....	94½
" 5	1 82½	2 71@2 81	.....	.....	93½
" 7	1 82½	2 71@2 81	.....	.....	93½
" 8	1 82½	2 76@2 82	.....	.....	96½
" 9	1 82½	2 76@2 82	.....	.....	96½
" 10	1 80	2 76@2 82	.....	.....	99
" 11	1 80	2 76@2 82	.....	.....	99
" 12	1 80	2 76@2 82	.....	.....	99
" 14	1 80	2 76@2 82	.....	.....	99
" 15	1 80	2 76@2 82	.....	.....	99
" 16	1 80	2 76@2 82	.....	.....	99
" 17	1 81¾	2 76@2 82	.....	.....	97¾
" 18	1 82½	2 76@3 82	.....	.....	96½
" 19	1 82½	2 74@2 82	.....	.....	95½
" 21	1 82½	2 74@2 82	.....	.....	95½
" 22	1 82½	2 76@2 82	.....	.....	96½
" 23	1 82½	2 76@2 82	.....	.....	96½
" 24	1 82½	2 81@2 83	.....	.....	99½
" 25	1 82½	2 83@2 87	.....	.....	1.02½
" 26	1 82½	2 83@2 87	.....	.....	1.02½
" 28	1 82½	2 83@2 87	.....	.....	1.02½
" 29	1 82½	2 85@2 89	.....	.....	1.04½
" 30	1 82½	2 85@2 89	.....	.....	1.04½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average Californie Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegreph to the Associsted Press and as puhlisbed in the "Merk Lenc Express," In all cases the "Merk Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indcated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, April 30th, 1873.

The firmness noted in the tone of the produce market still continues, particnlarly in Wheat, which owing to advances in Liverpool to reduce tonnage rates, and to the exbaustion of the export surplus has kept up well and promises to perbaps advance a little. The weather during the week has been very dry, and if it should long continue so, will cause the harvest to be somewhat smaller than anticipated. Oats bave been weak for the past few days, owing to the sickness of the horses, while Bran, owing to the same cause, has advanced greatly and the receipts bave been much augmented. The Wool coming in is of a very unsatisfactory character, short and dirty, and has in oonsequence fellen considerably.

Receipts.

Receipts of Domestic Produce during the week bave varied considerably, the cereals have decreased considerably, while those of Wool have largely increased. Receipts of Flour bave decreased one-fourth; those of Wheat bave decreased three-fourths; those of Barley three-fourths and those of Oats one-half. Those of Bran have increased one-half; those of Middlings have decreased some; those of Potatoes bave incressed one-half; those of Beans have decreased four-fifths; those of Hay one-half; those of Hides one-fourth and those of Wine one-fourtb.

We summarize receipts of Bay Produce to date as 14,392 quarter sacks of Flour; 48,627 centals of Wheat; 2,087 centals of Barley; 494 do of Oats; 217 do of Corn; 3,478 do of Bran; 640 do of Middlings; 3,164 do of Potatoes; 200 do of Beans; 46 do of Flaxseed; 1 bale of Hops; 342 tons of Hay; 45 do of Straw; 2,819 bales of Wool; 1,591 Hides; 23,100 gallons of Wine; 122 do of Brandy; 64 centals of Onions, and 150 bales of Chiccory.

Receipts of Wheat at Oakland Wharf have aggregated 13,600 centals, or 68 car loads.

Receipts of Coast Produce exhibit an increase in the matter of Oats, Potatoes and Wool. We summarize receipts of Coast Produce to date as 839 centals of Wheat; 5,230 do of Barley; 3,813 do of Oats; 1,041 do of Corn; 10,518 do of Potatoes; 159 Hides; 1,347 bales and 48 half-bales of Wool; 66 centals of Beans; and 5 packages, 3 barrels and 2 kegs of Wine.

From Columbia River by the bark "Melanobthon," we bave received 1,050 centals of Wheat.

From Oregon we received 100 half and 3,600 quarter-sacks of Flour; 2,101 sacks of Oats; 3,376 do of Wheat; 108 do of Hides and 11,000 dozen of Eggs.

Barley.

The market bas been weak for the past few dsys, and there is no more enquiry for export. Receipts from all quarters have aggregated 7,317 centals. We note sales of 200 bags of Feed at $1.15; 1,300 do Coast Feed at $1.17½; 150 do of Feed at $1.20; 200 do Bay Feed at $1.22½, and 1,700 do at $1.25.

Flour.

There is no enqnlry for export, and the market is, generally speaking, dnll. Exports last week included 162 barrels, 524 half sacks, and 3,716 quarter sacks to Petropaulowski, Mexico and Central America.

Hay.

Receipts bave fallen off, probably on account of the borse disease. We note sales of a cargo of choice at $21, and another of fair at $18.

Hops.

Hops in this market exhibit no improvement, but Eastern advices lead to the belief that the crop tbere will he light, and that we shell be able to obtain good prices for our crop. In the great Hop regions of Wisconsin the Hops in the old yards are three-fourths winter killed, and there were very few new ones planted last season.

Oats.

Oats are dull on account of the epizooty lessening the demand for them. Our receipts lsst week were small, but over 2,000 centals came from Oregon. It is reported that one gentleman has offered to sell 20,000 sacks at $2, payeble in May. We note sale of 200 bsgs of Oregon at $2.10; 200 do California at $2.15; 450 do at $2.20; 100 do at $2.25; and 169 do Oregon et private rates.

Potatoes.

The tone of the market is rether weak than otherwise, very large quantities amonnting altogether to 13,679 centals baving been received during the week. We note sales of 3,630 sacks of Humboldt at from $1.00 to $1.10, 800 do of Petaluma at from 60c to 65c, and 250 do of Bodega at from 70c to 80c.

Wheat.

Receipts last week were very small, not exceeding 52,842 centals, one-third of the amount of receipts last week. Over 3,000 centals of Oregon Wheat are included in tbis. Prices have remained steady and are very firm at $1.80 to $1.90. Tbe price in Liverpool, according to telegrams received by Associated Press and tbe Merchants' Excbsnge, has risen 5 cents, being now $2.85 to $2.89. Freights are nominally the same as last week. We note sales of 600 sacks of Inferior at $1.67½; 1,600 do at $1.75; 500 do at $1.80; 13,000 Good at $1.82; 12,300 do at $1.85; 13,000 do at $1.87½ and 4,900 do at $1.90.

Exports include per "James Foster," to Liverpool, 42,147 centals; per "Friedlender," do, 48,322 do; per "Wm. Fruing," do, 23,330 do; per "Java," do, 40,629 do; and per "Garibaldi," do, 38,218 do; making a total of 5 cargoes of 192,646 centals, worth $357,241.

Wool.

A New York telegram to the *Call* of date April 27th, states tbat a cable dispatch received from London yesterday says:

"Two hundred thousand bales were offered at auction. Englisb and Continental buyers were numerous and active. The closlog rntes of March were maintained." This intelligence has imparted additional confidence to holders in this market. The sales beve been 100,000 pounds California pulled aod 20,000 pounds Oregon, private; also, 275 bales of Fall and 125 bales of Spring clip California and Oregon short at 20@30c; and 150 bales Australian, at 52@55c for fleece, and 75@80c for washed combing.

Tbe local market is very dull. We note sales of 365,000 lbs at 14o to 21c. Shipping goods are quotable st 17c to 21c, and choice clean long staple is worth 22c to 22½c.

GENERAL MERCHANDISE.

Owing to the epizooty and to other csuses, business bas been very dull last week. Imports have been very small, including the "Golden Gate," from Liverpool, and the "M. Charlotte," from Bordeaux, with miscellaneous cargoes. Exports have nlso been limited in amouut, including those of the "John Bright," to Petropaulowski witb Rice, Sugar, Tea, etc.; the "Nidsros," to La Paz, with Sugar, Coffee and Domestic Produce; the "Great Republic," to New York, with Whale Oil and Wine. The exports were carried in 8 vessels and were worth $506,836.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$25 00
Rough refuse, ₱ M	16 00	Flooring end Step, ₱ M	37 50
Rough clesr, ₱ M	32 50	Flooring, narrow, ₱ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quelity M	30 00
Rnstic, ₱ M	35 00	Laths, ₱ M	4 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineel ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced, refuse, ₱ M	22 50	Rongh refuse, ₱ M	20 00
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding, M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, ₱ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half-inch Bettens, M	22 50	Rustic, ₱ M	42 50
Pickets, rough, ₱ M	14 00	Battens, ₱ lineal foot	
Pickets, rough, p'ntd	16 00	Shingles ₱ M	3 50
Pickets, fancy, p'ntd	22 50		
Shingles, ₱ M	3 00		

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, May 1, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton	$60 00	@	— —
White Pig, ₱ ton	60 00	@	— —
Refined Bar, had essortment, ₱ ₤	— —	@	— 06
Refined Bar, good assortment, ₱ ₤	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	
Nail Rod	11	@	
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
COPPER.—			
Braziers	— 35	@	— 38
Copper Tin'd	— 50	@	— —
C.Niel's Pat	— 55	@	— —
Sheathing, ₱ ₤	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29		— 30
Composition Bolts	— 29		— 30
TIN PLATES.—			
Plates, Obarcoal, IX ₱ box	14 50	@	15 —
Plates, 1 C Charcoal	13 50		14 —
Roofing Plates	13 00		13 50
Banca Tin, Slabs, ₱ ₤	— 40		— 42½
STEEL.—English Cast, ₱ ₤	— 20		— 25
Drill	20		— —
Flat Bar	22		— —
Plough Points	16		— 17
Zinc, Sheet	17		18
ZINC	8¼		10
NAILS—Assorted sizes	— 9		— 10
	— 5¾	@	— 9

DOMESTIC PRODUCE.

WEDNESDAY M., May 1, 1873.

BEANS.			
Beans, sm'l wh, ₤	4¾	@	—
do, butter	4½	@	—
do, large, do	4¾	@	5
do, bayo	3¾	@	3½
uo, pink	3¾	@	3½
do, pea	4¾	@	5¼
BROOM CORN.			
Per ton	$40	@	120
DAIRY PRODUCE.			
Butter, Cal. frsh, ₤	—	@	—
do, ordin'y roll	25	@	—
do, choice	30	@	—
do, new firkin.	30	@	—
do, pickled	28	@	30
do, New York.	—	@	—
Cheese, Cel new	13	@	15
do, Eastern	18	@	—
Eggs, Cel. fresh	28	@	30
do, Oregon	22½	@	—
do, Eastern	—	@	—
FEED.			
Bren per ton	30	@	35—
Middlngs	30 00	@	35—
Hay	18 00	@	3 —
Straw	9 00	@	12—
Oil ceke meal	30 00	@	—
Corn Meel	31 00	@	40—
FLOUR.			
Alviso Mills, bbl	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Commel Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
SentaClareMills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venns, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard, Sac	4 50	@	5 75
FRESH MEAT.			
Beef, fr quality	6	@	—
do, second do	5	@	—
do, third do	4	@	4½
Veal	5½	@	6
Mutton	6½	@	7
Pork, undressed	6½	@	7
do, dressed	8½	@	11
GRAIN, ETC.			
Wh't Cal. c'st.cl	1 75	@	1 80
do, shipping	1 82½	@	1 85
do, milling	1 90	@	1 90
do, Oregon	—	@	—
Berley, DerkO'stl	1 17½	@	1 20
do, Light	1 35	@	1 40
do, Brewing	—	@	1 40
Oats, Coast	2 25	@	—
do, Light	2 35	@	2 50
Corn, White	1 15	@	—
do, Yellow	1 15	@	—
Buckwheat	1 25	@	1 30
Rye	2 —	@	2 50
HOPS.			
Californis, 1871, ₤	—	@	—
do 1872	50	@	—
Eastern, 1872, ₤	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	32½	@	35
Honey, choice	10	@	22½
Los Ang. Honey	12½	@	30
Onions	7	@	8
Flexseed	3	@	—
Celery do	4	@	5
Mustard do, white	1½	@	2¼
do, brown	2	@	3
Alfalfa	35	@	—
Ky. Blue Gress	50	@	—
Timothy	35	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	3	@	5
Pecan nuts	16	@	18
Hickory do	10	@	—
Brazil do	16	@	—
Coc'enuts, ₱100	0 90	@	—
Alm'ds h'rd shs	10	@	12½
do, soft	20	@	25
POTATOES.			
Sweet, per lb	1 25	@	—
Humboldt	1 00	@	1 10
Monterey	—	@	—
Tomales	60	@	80
POULTRY & GAME.			
Live Turkeys ₤	24	@	26
Hens, per dz	9 00	@	10 00
Roosters	9 00	@	10 00
Chickens	3 00	@	7 00
Ducks, tame, doz	1 50	@	2 00
Geese, per pair	2 00	@	2 50
Hare, per doz	3 00	@	3 50
Snipe, Eng., doz	2 50	@	3 00
Venison, per lo	—	@	—
PROVISIONS.			
Cel. Bacon, per lb	13	@	13½
Eastern do	13½	@	14½
do sugared	13	@	—
Cal. Hams	—	@	13½
Eastern do	15½	@	16½
Cal. Smoked Beef	11	@	12
WOOL, ETC.			
Spring, short, ₤	14	@	16
do choice	20	@	21
Burry	13	@	16
Hides, dry	17	@	17½
do wet ssited	9	@	—
Tallow	7	@	—

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	17	@	—
Flour Sacks ½s	13½	@	16
" " ¼s	8½	@	9¼
Sland. Gunnies	17	@	17½
" Wool Sacks	60	@	65
" Barley do	18	@	—
Hessian 40-in.gds	12	@	—
do 60	17	@	—
Burlaps, yard	12	@	—
CANNED GOODS.			
Asst'd Pie Fruits in 2½ ₤ cans	3 00	@	—
do Teble do	3 75	@	4 —
Jams & Jellies	4 —	@	4 25
Pickles ½ gl	3 25	@	3 75
COAL—Jobbing.			
Australian, ₱ ton	14 —	@	15—
Coose & Bel. Bay	8 50	@	—
Seattle	11 00	@	—
Cumberl'd, cks	26 00	@	—
" bulk	22 50	@	23—
Lehigh	20 00	@	—
Liverpool	11 00	@	12—
West Hartley	14 00	@	16—
Scotch	12 00	@	14—
Soranton	17 00	@	—
Vancouver's Isl	12 00	@	14—
Cbarcoal, ₱ sk	1 00	@	—
COFFEE.			
Costa Rica per ₤	18½	@	19¼
Guetemala	17½	@	18½
Java	22	@	23
Manilla	17½	@	—
Ground in cs	27½	@	—
Chicory	8	@	—
FISH.			
Pac. Dry Cod, new	7	@	9 —
cases	8	@	8½
Eastern Cod	9 50	@	—
Salmon in bbls	8 00	@	—
do ½ bbls	4 50	@	5 00
do 2½ ₤ cans	—	@	3 50
do 2 ₤ cens	—	@	3 50
do 1 ₤ cans	—	@	2 50
Pick. Cod, bbls	—	@	—
do ½ bbls	—	@	—
Cel. Smoked	—	@	—
Herr'g, bbls	3 50	@	—
Meck'l, No. 1, ½ bls	00	@	9 50
" Extra	—	@	14 00
" in kits	2 50	@	3 00
" mess	—	@	4 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size, ₤	5¾	@	9 —
OILS.			
Pacific Glue Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No. 1	1 35	@	1 40
do do No. 2	1 25	@	1 30
Cocoa Nut	60	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Pelm	9	@	—
do Bagicelupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Wheles	40	@	45
Poler, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	40	@	42
Oleophine	40	@	—
Devoe's Bril't	44	@	45
Long Island	40	@	—
Eureka	40	@	—
Downer Kerose'e	50	@	55
Gas Light Oil	40	@	42
PAINTS.			
Atlan. W. Lead	11¾	@	12½
Whitening	—	@	2
Chslk	—	@	1
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11
RICE.			
China No. 1, ₱ ₤	7	@	—
do 2, do.	6¾	@	7
Jepen	6½	@	7¼
Patna	6	@	6½
Hawaiian	8	@	9
SALT.			
Cal. Bay, per ton	5 00	@	15—
Cermen Island	14 00	@	30—
Liverpool fine	25 00	@	26—
do coarse	19 00	@	20—
SOAP.			
Castile ₱ ₤	12	@	12½
Locei brands	5½	@	7
SPICES.			
Allspice, per ₤	—	@	16
Cloves	27½	@	—
Cassis	30	@	—
Nutmeg	1 00	@	—
Whole Pepper	23	@	24
Grounnd Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	25	@	30
do Mace	1 50	@	1 75
do Coffee	25	@	—
SUGAR, ETC.			
Cal. Cube per ₤	12¼	@	—
Circle A crushed	12¾	@	—
do grenulsted	11¾	@	12
Golden C	10	@	—
Hawaiien	20	@	22½
Cal. Syrup in bls.	52½	@	—
do in ½ bls.	55	@	—
do in kegs	60	@	—
TEA.			
Colong, Canton, ₤	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	35
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cent.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, hulk	30	@	75
Japen, decl'ned bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ¾ & 1 lb paper	50	@	55
TOBACCO—Jobbing.			
Bright Navys	52½	@	60
Derk do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Conn. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut chewing, huc'ts, ₱ ₤	75	@	90
Banner fine cut	9 25	@	—
Enreka Cala	8 50	@	—

Leather Market Report.

[Reported for the PRESS by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, May 1, 1873.

The market for Sole Leather continues the same. French Calf steady at old prices, with light demand.

City Tanned Leather, ₱ ₤			26@29
Santa Cruz Leather, ₱ ₤			26@29
Country Leather, ₱ ₤			25@28
Stockton Leather, ₱ ₤			26@29
Jodot, 8 Kil. per doz	$50	00@	54 00
Jodot, 11 to 19 Kil., per doz	66	00@	85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55	00@	70 00
Lemoine, 16 to 18 Kil., ₱ doz	75	00@	77 50
Levin, 12 and 13 Kil., per doz	68	00@	70 00
Cornellian, 12 to 16 Ko	57	00@	67 00
Cornellian Females, 12 to 13	60	00@	64 00
Cornellian Females, 14 to 16 Kil	66	00@	72 00
Ogeran Calf, ₱ doz	54	00@	
Simon, 18 Kil., ₱ doz	60	00@	62 00
Simon, 20 Kil. ₱ doz	65	00@	67 00
Simon. 24 Kil. ₱ doz	72	00@	74 00
Robert Calf, 7 and 9 Kil	35	00@	40 00
French Kips, ₱ ₤	1	00@	1 30
California Kip, ₱ doz	50	00 to	80 00
French Sheep, all colors, ₱ doz	8	00@	15 00
Eastern Calf for Backs, ₱ ₤	1	10@	1 25
Sheep Roans for Topping, all colors, ₱ doz	9	00@	13 00
Sheep Roans for Linings, ₱ doz	5	50@	10 50
California Russett Sheep Linings	1	75@	5 50
Best Jodot Calf Boot Legs, ₱ pair	5	25	
Good French Calf Boot Legs, ₱ pair	4	50@	5 00
French Calf Boot Legs, ₱ pair	4	00	
Harness Leather, ₱ ₤		30@	37½
Fair Bridle Leather, ₱ doz	48	00@	72 00
Skirting Leather, ₱ ₤		34@	37½
Welt Leather, ₱ doz	30	00@	50 00
Buff Leather, ₱ foot		21@	25
Wax Side Leather, ₱ foot		20@	
Eastern Wax Leather		26	

San Francisco Retail Market Rates.

WEDNESDAY NOON, May 1, 1873

FRUITS, VEGETABLES, ETC.

There are very few Apples in the market. Oranges are plentiful. Strawberries are abundent. Vegetables of all kinds are plentiful, but the epizooty has prevented the bringing them to market. Thet, however, is now nesrly over. Salsify is out of the market. Mushrooms are scarce.

Apples, pr lb	8	@	15	Cucnmbers, ea	20	@	25
Pears, per lb	12½	@	—	Tomatoes, ₱ ₤	12½	@	—
Apricots, ₤	50	@	62½	Green Peas	4	@	8
Pine Apples, each	50	@	1 00	String Beans	25	@	30
Bananes, ₱ doz	75	@	1 00	Cress, ₱ doz bun	20	@	—
Canteleups	—	@	—	Dried Herbs, ₤	25	@	35
Watermelons	—	@	—	Gerlic	10	@	—
Cal. Walnnts, ₤	18	@	20	Green Corn, doz	20	@	25
Cranberries, ₱ g	—	@	1 00	Lettuce, ₱ doz	25	@	25
Strewberries, ₤	12½	@	15	Mushrooms, ₱ ₤	5	0	—
Raspberries, ₤	—	@	—	Horseradish, ₱ ₤	20	@	25
Gooseberries	—	@	—	Okra, dried, ₱ ₤	50	@	—
Cherries, ₱ ₤	—	@	—	do fresh, ₱ ₤	—	@	—
Orenges, ₱ doz	50	@	1 00	Pumpkins, ₱ ₤	2	@	3
Limes, per doz	25	@	—	Parsnips, doz	20	@	—
Figs, dried Cal.	12½	@	25	Parsley	15	@	20
Figs, Smyrne, ₤	25	@	35	Pickles, ₱ gel	50	@	75
Asparagus, ₤	6	@	10	Radishes, doz	15	@	20
Artichokes, doz	50	@	—	Sommer Squash	20	@	25
Beets, ₱ doz	20	@	—	Marrowfet, do	2	@	3
Potatoes, New ₱ ₤	4	@	5	Hubberd, do	2	@	3
Potatoes, sweet	3	@	5	Dry Lima, shl	8	@	10
Broccoli, ₱ pc	10	@	15	Spinege, ₱ hskt	25	@	—
Canliflower, ₱	10	@	15	Salsify, ₱ bunch	10	@	—
Cabbage, ₱ doz	75	@	1 00	Turnips, ₱ doz	20	@	—
Carrots, ₱ doz	20	@	—	Rhuharb	8	@	—
Celery, ₱ doz	75	@	—				

POULTRY, GAME, FISH, MEATS, ETC

The supply of Poultry is good, and sales are moderate. Rabbits and Hares are botb scarce.

Fisb are coming in plentifully, and are very cbeap in consequence. Salmon Trout are from 75c. to $1,25 ₱ lb. The first Shad ever caught in these waters is now on exhibition at the stall of Mr. Kessing in California Market. A rewarn of $50 had been offered for it, and this gentleman is about to claim it.

Chickens, apiece	75	@	1 25	Choice D'ffield	20	@	—
Turkeys, ₱

Nursery Notices.

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

Or a Fine a sortment of

Ornamental Shrubs?

Then all st the

BELLE VIEW NURSERY,

Telegraph Road.....OAKLAND.

2v5-3m S. NOLAN, Proprietor.

THE OLD

Maple Leaf Nursery.



Has constant-ly on hand all varietles of FRUIT AND ORNAMENT-AL EVER-GREEN and DECIDUOUS SHRUBS; also a large assort-ment of Choice ROSES too nu-merons to mention. Green Hons-e Plants, Flow-ers and Bulbs, Garden, Grass and Flowar Seeds of all kinds, are for sale by

L. M. NEWSOM, Proprietor,

12v3-tf Washington street, Brooklyn, Cal.

G. M. JARVIS, Vine Hill Vineyard, Santa Cruz, Cal. | J. W. JARVIS, cor. 12th and Pine, St. Louis, Mo.

Vine Hill and Sugar Loaf Vineyards.

G. M. and J. W. JARVIS,

Growers and Dealers in

CALIFORNIA WINES AND BRANDIES.

SANTA CRUZ, CAL.

We have been awarded the silver medal of the State Fair of Illinois, held st Springfield, for the best native wines snd brsndy. We warrsnt our goods perfectly pure and warrant them to keep. 13v5-tf

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THE LARGEST STOCK IN THE STATE AT

H. ALLEN'S NURSERY,

Ccr. McAllister and Buchsnan Sts., San Francisco.

Being Agent for the Pacific Ramie Co., and hsving the largest stock in the Stste, is enabled to offer extra inducements to purchasers. Orders left at Collie & Stewart's, 18 Post street, or addressed direct to H. Allen, cornar McAllister and Buchsnan streets, will be promptly attended to. fe22-3m

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RAMIE PLANTS FOR SALE.

From 50,000 to 100,000 First-class Planta at $50 per thousand.

Orders addressed to

THOS. MEHERIN,

516 Battery street, directly opposite Post Office, San Francisco,

Will be promptly attended to. m29-1m

50,000

Australian Gum Trees,

Including all the desirable variatles, at from $5 to $10 per 100, in the best condition for transplanting and transportation. For sale at the Gum Tree Nurseries, Haywsrds, Alsmeda Co., Csl.

Address JAS. T. STRATTON,

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H. K. CUMMINGS. 1858. H. H. RALSTON. 1873.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

415 and 417 Davis street, cor. of Oregon, San Francisco

Our business being exclnsively Commission, we have no interests that will conflict with those of the producer. 4v23-1y

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Strawberry Baskets—The Best Yet Out.

A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of bask t. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into psper bags. SWAN & CO. are ready to make 20,000 per day.

UNION BOX FACTORY,

14v5-2m 114 and 118 Spear street, San Francisco.

WARNER & SILSBY

Mannfacture all sizes of

Bed and Sofa Springs,



Which they offar to the trade at reduced prices; also the celebrated Obermann Self-Fastening Bed Spring.

Any man can make his own Spring Bed with them by attaching tham to the slats of any bedstaad.

No. 147 New Montgomery Street, corner of Natoma, San Francisco. 12v5-3m

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WANTED.

Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. OHAS. F. BECHEER & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v5-3m

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THE HORTICULTURAL SPRING EXHIBITION

OF THE

Bay District Horticultural Society

WILL OPEN ON MAY 1st, 1873, AND CONTINUE FOR NINE DAYS,

—AT—

Horticultural Hall,

Corner of Post and Stockton Streets,.....SAN FRANCISCO.

This will ba chiefly a Floral Exhibition However, all Horticultural products will be received.

Amateurs are earnestly invited to contribute and compete for special prizes offered.

For particulsrs inquire of the Secretary,

F. A. MILLER,

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SEEDS & PLANTS

Wholesale or Retail.

Vegetable, Field and Flower Seeds,

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FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED,

Mesquit Grass Seed.

Hyacintha, Tulipa, Crocns, Lilics, fine clumps of Lily of the Valley, new Gisdiolus, Etc.

Ramie Seed snd Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

RUSTIC AND WIRE BASKETS, FLOWER STANDS, FRUIT AND ORNAMENTAL TREES, ETC.,

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SEEDS—1873—FRUIT.

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GARDEN AND FLOWER SEEDS,
FRUIT TREES AND SHRUBS,
CLOVER AND GRASS SEEDS.

Seeds forwarded by mail if desired.

All kinds of FRUIT AND NUTS, also HONEY, constantly on hand and for sale at lowest markct rates.

Large invoices of Eastern and European Garden and Flower Seeds, just received.

mr1-3m A. H. CUMMINGS & CO.,



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Los Angeles County Lands.

Farming Lands in Los Angeles County for sala, in sections snd quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 par cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agant, W. B. OLDEN, Anaheim. 12v3tf

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REAPER AND MOWING SECTIONS,

Planing Knives, Curriers' Knives,

SAW MANDRELS AND SAWS OF EVERY DESCRIPTION MADE TO ORDER.

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SACRAMENTO AND SAN FRANCISCO,

Importers of

HARDWARE,

Agricultural Implements, Harvesting Machinery, etc.

Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

Haines' Genuine Headers, Bain's Header Wagons, Bain's Farm Wagons.

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Portable Steam Thrashing Engines.

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Hand Rakes, Scythes, Snaths, Forks, Shovels, Bailng and Fencing Wire, Rope, Nails, Belting, Machine Oils, etc. A full stock of SHELF HARDWARE.

EXTRA PARTS for repairing Harvesting Machinery.

Orders by Mail or Expresa will receive prompt attention. Send for Circular. Address

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WILCOX'S

IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simpla, Durabla, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are nsed for Water Works, Mining, Irrigation, and all other ordinary pnmping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

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Agricultural Articles.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the conntry.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent double motion, by which (simply on moving a lever at the hand of the driver, either a fast or slow speed may be given the knives or sicklas in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embracas the Standard Improved Machines of the conntry, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,

Haines' Headers, Ithaca Horse Rakes, Hoadley's Engines, Pitts Horse Powers, Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

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And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also tha Doane Patent Adjustable Reel. Our Russell Separators have tha Laufenberg Patent End-Shake Shoe whan desired. ☞ Please send for circulars and prices.

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MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took tha Premium ovar all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly mada by practical man who hava been long in tha bnsinass and know what is required in the construction of Gang Plows. It is quickly adjusted. Snfficient play is givan so that tha tongua will pass over cradle knolls without changing tha working positlon of the shares. It is so constructed that tha wheels themselves govern tha actlon of tha Plow correctly. It has various points of snperiority, and can be relied npon as tha Bast and Most Desirabla Gang Plow in tha world. Sand for circular to

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THE BAIN WAGONS.



Thase Wagons are now racognized as

The Best Farm and Freight Wagons

IN THIS MARKET,

being made partisularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

SEND FOR A LIST OF PRICES TO

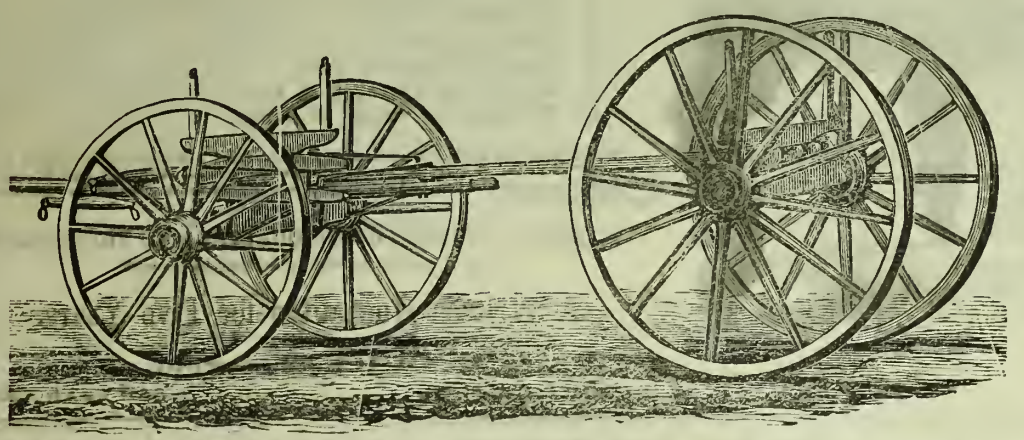
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Jackson, Michigan, Farm and Team Wagons

HAVE BEEN PROVED FOR FIFTEEN YEARS IN CALIFORNIA AS

THE BEST WAGONS TO STAND THIS HOT AND DRY CLIMATE.



The Wheels have Tire Rivets—Felloes run through Hot Boiled Oil—No Shrinkage Possible.

EXTRA BEARING IRONS AND BRACES, WITH OTHER IMPROVEMENTS.

We Have also to Arrive:

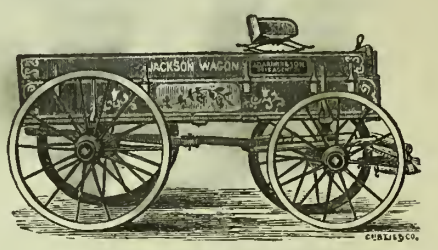
EXTRA WHEELS, to make a HEADER Wagon of a FARM Wagon.

Also, HEADER Wagons complete.

ALSO,

LIGHT AND HEAVY

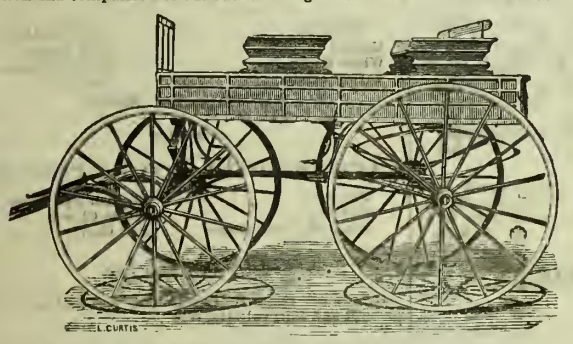
One-Horse Carts.



Also, a Light Express one or two-seat Wagon—called the **OHIO TRADE WAGON**—suitable for one or two horses, for a Pleasure Wagon or other light use. We invite a close inspection of this Wagon in the state in which it comes from the Manufactory (UNPAINTED), showing it to be the BEST made Wagon of the kind ever imported. We guarantee all our Wagons for Two Years. Anything proving imperfect in that time will be made good.

THE TIMBER FOR ALL OUR WAGONS IS THE BEST SELECTED

Second Growth Timber, seasoned for years under cover, but open to the air. The Thimble Skeins are cast endwise, making them more solid. Patent Plate for sliding perch. Patent Bed Plate for bolster, making the Wagons the best and most complete in the market. We keep a large assortment on hand of all sizes, both IRON and SHELL Axle, and invite a close examination and comparison of our Jackson Wagons with the numerous Eastern Wagons in this market.



TRADE WAGON.

We Hold Certificates

From those who have used

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Jackson Michigan Wagons

For the past Fifteen Years.

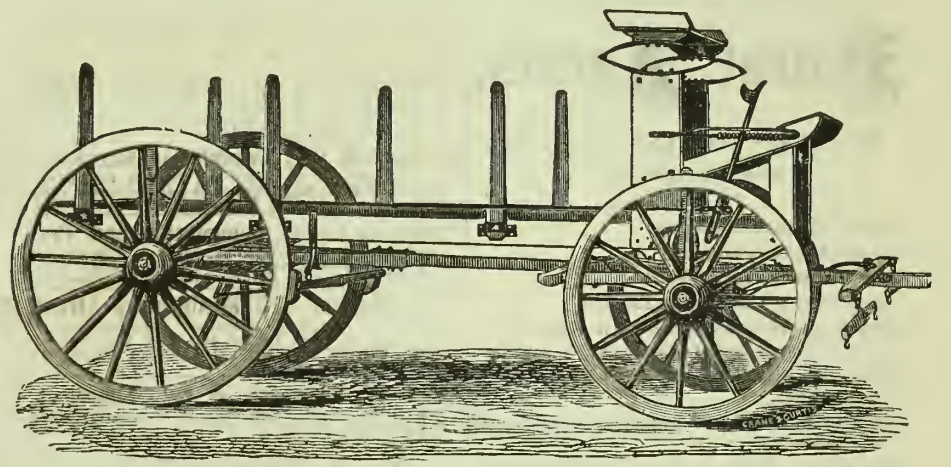
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That they are the

Best Wagons

To stand this dry climate of any that have been

USED IN CALIFORNIA.

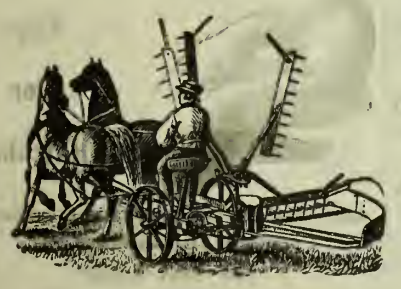


All Sizes, from One-Horse to Six-Horse Wagons, are in Stock, Wholesale or Retail, cor. California and Davis sts., San Francisco.

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The Leading Machines.



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With a full stock of Agricultural Implements and Hardware.

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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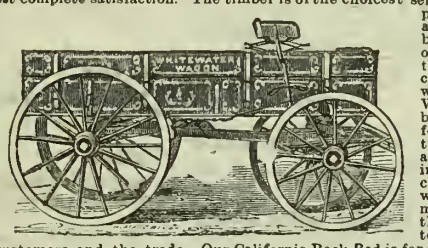
ap22-3m San Quentin, Cal.

PURCHASERS please say advertised in Pacific Rural Press.

THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3⅓ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $1 30 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be **a good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, **at a low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf

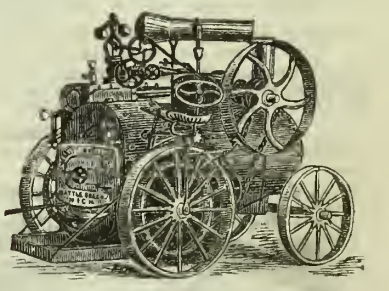


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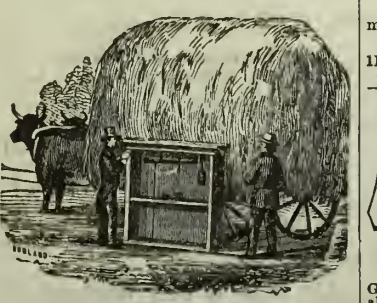
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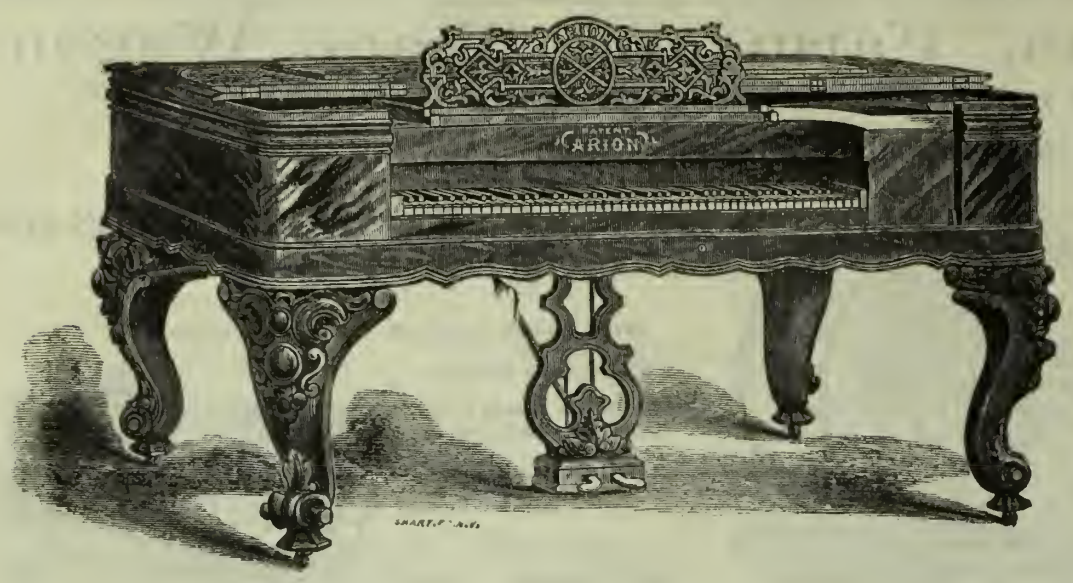
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This Hotel has been newly furnished, and is situated in a central and healthy location, and is one of the few Hotels in San Francisco conducted on Temperance Principles.

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For the benefit of persons residing in the country, who cannot procure the assistance of a professional person, we submit for their consideration a few "POINTS"—which it is well to consider—to guide them in selecting a Piano:

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Whilst there are many Pianos that are manufactured which possess some of these "points," and excel in them, there are none which possess them all combined, as our instruments do; and we feel confident of success, as we dispose of no instrument but what will be a

PERMANENT GUARANTEE OF QUALITY AND SUPERIORITY

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Breech-Loading Shot Guns, $40 to $300. Double Shot Guns, $3 to $150. Single Guns, $3 to $20. Rifles, $3 to $75 Revolvers, $6 to $25. Pistols, $1 to $8. Gun Material, Fishing Tackle, &c. *Large discounts to dealers or clubs.* Army Guns, Revolvers, etc., bought or traded for. Goods sent by express C.O.D. to be examined before paid for.

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Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.

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Swine Breeders, Attention!

FOR SALE.

An imported, pure bred Chester County WHITE BOAR, bred by Jefferson Shaver, Esq., Westchester county, Penn.

Apply to THOS. E. FINLEY,

Manager of California Stock and Poultry Association, Office 113 Leidesdorff street, San Francisco. 17v5-tf

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Under this head will be found the names and address of some of our most enterprising and reliable business men.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission. 501 Sansome st., N. W. corner Clay.

Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Niantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits, 519 Sansome street, S. F. All orders promptly attended to.

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Jacob Schreiber, Dealer in Live Geese Feathers, Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

Mrs. Curtis' First Premium Models, for sale, wholesale and retail, by Mrs Barringer, 54 Fourth street, S. F. Patterns cut, and Teacher of her system of Cutting all kinds of Garments in the latest styles.

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The White Stall.—E. O. Andrews & Co., Retail Dealers in Butter, Eggs, Cheese and General Assortment of Fancy Groceries, No. 23 Occidental Market, San Francisco. feb22-3m

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Low Priced Furniture, Bedding, Dental and Barber Chairs. Piano Stools etc., 725 Market street (Bancroft's Building), San Francisco.

Van Duzer & High, Commission Merchants, and Dealers in Butter, Cheese, Eggs, Poultry, Hides, Tallow, etc., No. 502 Merchant street, San Francisco.

San Francisco Wire Works, 665 Mission St., S. F. C. H. Gruenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

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Fred. C. Warner & Co., General Commission Merchants, No. 21 Metropolitan Market, San Francisco. Hams, Bacon, Butter, Eggs, Cheese, etc., sold on Commission.

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Saul & Co., 579 Market Street, San Francisco. Manufacturers of Carriages, Wagons and Stage Work, of the most improved and practical styles.

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On Sing, Chinese Intelligence Office, 624 Jackson street, between Kearny and Dupont, San Francisco. Particular attention paid to orders for all kinds of Servants, Cooks, Waiters, Laboring Men, etc.

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The most complete assortment of Pure Fresh Seed on the Coast at the lowest rates. TURKISH MUSKMELON, which keeps all the year, reduced from 50 to 25 cents per packet. 11v5-2m

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DITSON & CO. offer the following resume of prominent books recently advertised:

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The most widely known and used of all Reed Organ Methods.

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Either book sent, post-paid, on receipt of retail price.

OLIVER DITSON & CO., Boston.

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Choice Bred Fowls, and Eggs for Hatching.

I will spare a few EGGS from my Imported Stock of Poultry, consisting of

LIGHT AND DARK BRAHMAS,
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SPANGLED GOLDEN AND SILVER POLISH,
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PURE WHITE-FACED BLACK SPANISH,
SILKIES, BLACK, RED GAME,
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Chester County White Pigs, China Pigs.

ALLON,
Seventh and Oak streets, OAKLAND.
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Light Brahmas.

New importations having arrived, I will sell the remainder of my old breeding stock, pedigree furnished, at one-half cost of importation.

Eggs

From new importations of BRAHMAS and from LEGHORNS, etc., for sale, as usual, at $5 per dozen.

When less than 50 per cent. hatch I replace the eggs. My stock is surpassed by none on this coast.

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IN STANISLAUS AND MERCED COUNTIES, Either in large or small tracts.

Apply to W. T. S. RYER,
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SEASONABLE SEEDS

At Reduced Prices.

The following varieties, all of the NEW CROP, are offered at less than usual market rates:

BEETS.	CARROTS.
Mangel Wurtzel,	Long Orange,
White Sugar,	White Belgium,
Yellow Globe.	Long Red.

All Imported Seeds.

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Grass and Clover Seeds.

Timothy,	English Rye Grass,
Red Top,	White Clover,
Kentucky Blue Grass,	Red Clover.

ALFALFA, Etc.

Orders are respectfully solicited, and will meet with prompt and faithful attention.

GEO. F. SILVESTER,

No. 317 Washington Street,

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Improve Your Poultry.

It Costs No More to Keep Good Fowls than Poor Ones!



Eggs For Hatching.

SEND STAMP FOR ILLUSTRATED CIRCULAR

Containing a full description of all

The Best Known

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GEO. B. BAYLEY,

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LANDS, FARMS, ETC.

Parties wanting to sell would do well to send us a description of their property.

☞ WE MAKE NO CHARGE unless we EFFECT SALES.

We have 500 Farms and over 600,000 Acres of and for Sale.

Address BRANDON & BIBBINS,
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FARMERS, ATTENTION!

Sacks! Sacks! Sacks!

All farmers wishing to secure cheap and durable Grain Sacks will find it to their interest to call on us before going elsewhere.

KOHLER, McDOUGALL & CO.,
Bag Makers, 221 Davis st., one door south of Clay,
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DEVON STOCK FOR SALE.



A Herd of superior Devon Cattle—Milch Cows and Calves from full blooded grade stock, all of a very superior character.

From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the ranch of J. J. FELT,
an25-3m16p Three Miles from Menlo Park.

SEND this paper to your friends abroad.

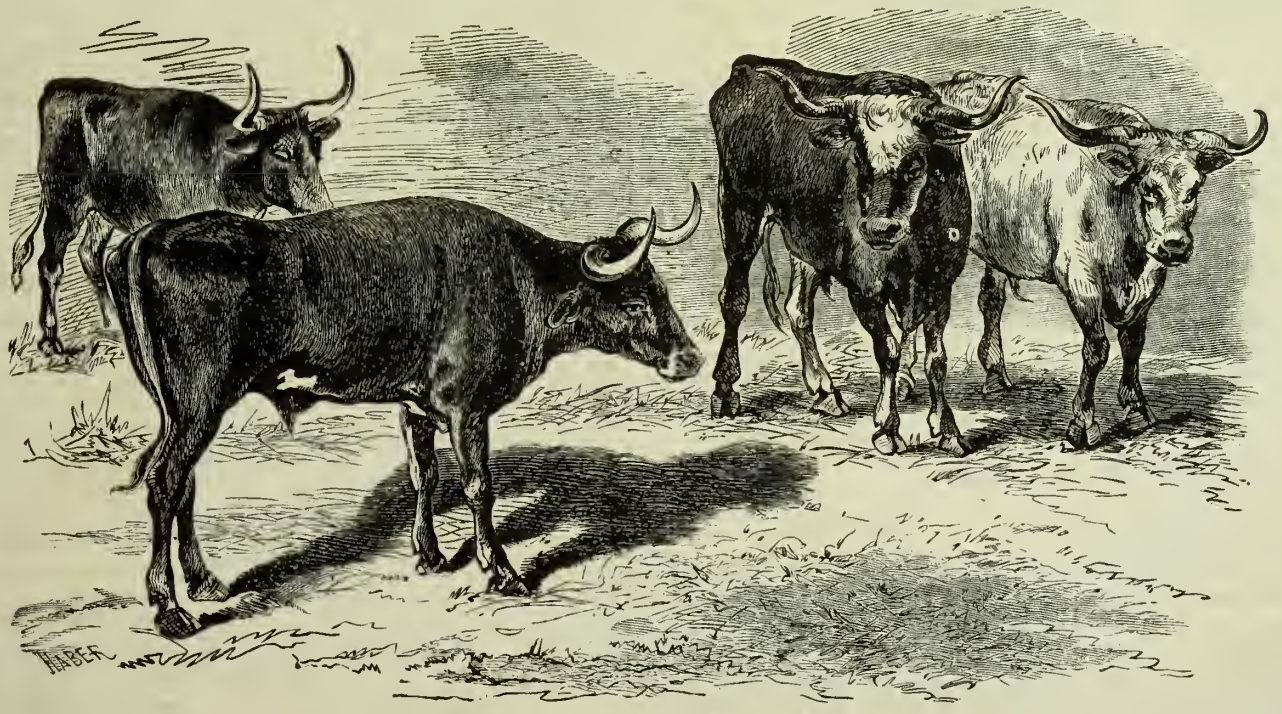
PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MAY 10, 1873. [Number 19.

The Texas Cattle Trade.

Old Californians with an eye upon our illustration will recognize the horns and general make-up of the cattle of onr plains of the early days; which we introduce more for the purpose of making a record of the past, or of what is fast passing away, than for any intrinsic beauty in the animals we picture.

It answers our purpose in another direction; we propose to give from a recent agricultural report, an extended notice of the Texas cattle trade, as showing its early and present condition and importance to the stock markets of the Atlantic States; and as the cattle of Texas are for the most part, fac similes in form and general characterists of the Mexican and early California stock, our cut becomes equally appropriate as illustrative of the physical conformation of the common stock usually designated the beef cattle of Texas.



CALIFORNIA CATTLE OF THE OLDEN TIME.

"Among the important developments of our domestic commerce, following closely upon the construction of the Pacific Railroads, is the Texas cattle trade, which has attained gigantic proportions, within the past three years. Previously, with greater obstructions to travel and longer distances to market, it had a slow growth. In all the more densely populated communities of the civilized world, the question of the continued supply of animal food long since assumed an important phase. Even on our own new continent, especially in the older settled portions on the Atlantic slope, the upward tendency of the meat market has long been remarked. If prices should continue to increase, as in the past few years, it requires no prophetic gift to foretell the transfer of animal food from the list of necessaries to that of the luxuries of life, attainable only by the middle or wealthier classes of society. The movements of population, the conditions of agriculture, and the development of mechanical industry have been unfavorable to cheap meat productions in the older States. In the Southern States population has tended hitherto to settle in the river bottoms, leaving immense plateau and mountain regions available to cattle-raising, bnt the system of agriculture prevalent in that section previous to the war was not favorable to this branch of industry. Its capacities in this direction have not yet been developed, and consequently no relief from the pressure can be expected from that quarter. The irruption of cheap beef from the southwest is, therefore, very timely and acceptable.

Texas has been aptly designated the great cattle-hive of North America. More than half a century ago, under inducements offered by the Spanish colonial authorities in Mexico, the coast region from the Sabine to the Rio Grande, a level and fertile belt from thirty to sixty miles broad, was settled by Spanish and American emigrants, who bronght with them their native breeds of cattle, which, under remarkably favorable circumstances of climate and pasturage, amalgamated into a common stock, combining in a larger degree the better points of the constituent breeds. Up to the struggle for Texas independence the increase of these herds was remarkably rapid. In the disturbances and social dislocations which then ensued, the western portion of this cattle region became almost depopulated, and the cattle, for lack of owners, relapsed into a state of wildness. Social order was not finally re-established till after the annexation of Texas to the United States, and the treaty of peace with Mexico, in 1848. The cattle-raising industry then revived. The wild herds were either reclaimed by their former owners or appropriated by others. Large numbers were driven to eastern markets, but enough remained to stock immense ranches, on which a class of men of enterprise and resolute character have since organized a very thrifty pastoral industry. During the late rebellion the Texas cattle regions were but very slightly devastated by the ravages of war, which, on the contrary, greatly enhanced their prosperity by increasing the price of Texas beef. Its very large production has of late been rendered available to the public interest through the various lines of the Pacific Railroad system.

In the coast regions of Texas are found cattle lords whose animated treasures surpass, in number and value, even the flocks and herds of the great man of Uz. The Santa Cabrutas ranch, on the Santa Cabrutas river, owned by Colonel Richard King, embraces 84,132 acres of land, stocked with 65,000 cattle, 10,000 horses, 7,000 sheep, and 8,000 goats. For the management of these immense herds, 300 Mexican herdsmen and 1,000 saddle-horses are held in constant requisition. Colonel King each year brands 12,000 calves, and sells 10,000 fat cattle, constantly investing the surplus proceeds in stock cattle. O'Connor's ranch, twenty miles below Goliad, on the San Antonio river, in 1862 contained over 40,000 cattle; during that year on this estate 12,000 calves were branded, and $80,000 realized by the sale of cattle. This enterprise was inaugurated ten years previously, with 1,500 cattle. The Rolideaux ranch, between the Nueces and Rio Grande rivers, owned by Mr. Kennedy, is a fertile peninsula of 142,840 acres, jutting out into the Gulf of Mexico, the isthmus being secured by thirty miles of plank fence, guarded at intervals of three miles by herdsmen's ranches. It already contains 30,000 beef cattle besides large numbers of other stock. Other magnificent cattle-herds might be enumerated.

The net increase of cattle in tliis region has been estimated as high as 25 per cent. per annum prior to the opening of the Texas cattle trade. Turning his animals loose to graze at will over a range of conntry often in which shelter is unnecessary, the Texas stock-raiser confines his care to the identification and marketing of his animals. For the former purpose the stockmen of the neighboring ranches assemble semi-annually in considerable force, to scour the country for the purpose of branding the calves, the ownership of which is determined by the brand borne by the cows they follow or suck.

This stock business, which has thus grown up from small beginnings, now amounts to a magnificent industry, the product of which reaches our most distant markets. Its conditions, both economical and productive, have been gradually changing with the growth of our resources. For several years after the annexation of Texas to the United States, the domestic market ruled very low. Stock cattle brought not over $4 or $5 per head, while beeves fattened for market did not command more than donble these prices. These rates, however, were abundantly remunerative under the conditions of cheap production then subsisting. When steamers began to touch at different points on the coast, and to ship beeves on the hoof to New Orleans and to other eastern and northern markets, the stock-raisers near the seaboard were soon able to realize double the rates above named. During the later years of the rebellion, the blockade of the coast and of the Mississippi river, by the Union forces, cut off nearly all access to markets; but since the return of peace, and especially since the opening up of the so-called Texas cattle-trade, prices have been constantly advancing. At a convention of Texas cattle-raisers, held in Live Oak county during the last autumn, the following tariff of prices was fixed, viz: For first-class animals, $18 per head; second-class, $15; third-class, $11.

The extension of crop-raising agricultural settlements in the coast regions seriously deranged the conditions of cheap production of cattle, by raising the value of land and by restricting the range of free pasture. The stock business was then extended northward to the central region of high rolling prairies and even to the plateaus of Northern Texas, localities scarcely less congenial to this attractive industry than even the rich plains of the coast. They present large areas tolerably well watered and sufficiently well timbered for the wants of the stock-raiser. The climate is mild and salubrious. The soil is a rich black mold, yielding, to a very imperfect culture, large crops of cereals and fruits. In their wild state the prairies are covered with excellent grasses, and already feed large herds of cattle, bearing the brands of different owners. Immense quantities of beef are annually lost, like the waste wood of the forest, for lack of means of preserving it. Hides rot on the ground for lack of tanneries, and because of the great cost of transportation to market, while imported leather is scarce and dear. Industry and trade are still in a very rudimentary condition, society being yet in a formative state.

Stock-raisers are found in this region with herds rivaling those of the coast. Eighteen years ago Mr. John Hitson was toiling amid the timber of Rhea county, Tennessee, to clear a little land for corn and wheat. Disgusted at the prospect of spending a lifetime in merely winning a foot-hold for future labor, he sold his land, and with 60 cows and 9 brood mares emigrated to what is now Palo Pinto county, on the Brogus river. He now owns 50,000 acres of land and as many cattle. Mr. John Chisholm owns 30,000 head, Mr. G. W. Slaughter 20,000, Coggins & Parks 20,000, Lacy & Coleman 12,000, Mr. Martin Childers 10,000. A large number of smaller but still very considerable herds, the product of a few years of intelligent enterprise, are reported in these regions, showing a rapid growth in the cattle industry, and a capacity for still greater expansion.

The number of cattle in Texas in 1870 is estimated at about four to one of the population; whereas, in the three great States of Ohio, Pennsylvania and New York, the proportion is reversed. Texas is supposed to contain at least 3,000,000 beef cattle, besides 600,000 cows. There are annually raised and branded about 750,000 calves. From this basis of production, it is a question how long the demands of the present cattle-market can be met. The impression is beginning to prevail that the enormous exportation both of stock cattle and of fat beeves has measurably curtailed production. To such an extent has this movement increased, that even yearlings are now driven to the pastures of Colorado and Kansas to fatten for eastern markets. The great demand for stock has also induced the occupancy of ill-watered districts, resulting in a large loss of animals by thirst. It seems probable that the capacities of the system hitherto pursued are about exhausted, and that more careful and economical methods and more scientific principles must be introduced into the business to enable it to meet the growing demand upon it.

The Spring's Immigration.

We are pleased at being able to chronicle the arrival a of larger number of immigrants both by ocean and railroad than has occured since the palmy days of the early mining excitement, and of a class that will eminently serve the present well being, as well as future welfare of the State. We have wanted farmers to settle upon and improve our unoccupied millions of acres and we are now getting them. We have wanted mechanics to occupy our workshops, and we have been in great need of laborers in every agricultural, mechanical and manufacturing department.

It was because we could not obtain the necessary white labor, that the country in many of its great enterprises has been obliged to fall back upon the "heathen Chinee" as the only alternative of securing the necessary man power. We notice a favorable feature of the new immigration, that to a man, woman and child, they express a willingness to work, to take hold and do something, even if not at the very highest wages at first. These are among the best signs of the times.

The corner-stone of the College of Letters of the University of California was laid last week, with appropriate ceremonies.

CORRESPONDENCE.

Enquiries From Maine.

EDITORS RURAL PRESS:—A few individuals (of whom I am one) believing that there are better locations in this country, than the one from which I write, are desirous of obtaining information in regard to agricultural pursuits in your State. And if you can answer a few questions, which occur to us, without trespassing upon your time too much, you will confer a very great favor.

1st. Are there any good Government lands on the line of the Southern Pacific R. R., suitable for growing the semi-tropical fruits? 2d. Does wheat do well in Southern California? 3d. What does it cost to build a comfortable farm house? 4th. What do nut, olive, orange and lemon trees, and the *best* raisin grape vines (or cuttings) cost in the nursery? 5th. Is the climate of Southern California as *enervating* as that of our Southern States? 6th. Can a man do a full day's work? 7th. Is irrigation *indispensibly* necessary for the successful cultivation of the orange? 8th. Would men who have been engaged in entirely different pursuits, be likely to succeed in farming in California? 9th. What do good farm horses and cows cost? 10th. And lastly how *little* capital, can a man get along with, comfortably, who intends to make fruit raising his principal business, as soon as the trees can be grown—say to plant twenty acres in oranges, lemons, olives, nuts, etc., and ten acres in the raisin grape. Inclosed please find two dollars ($2.00) for which please send your paper to my address six months, probably by that time I shall either be in your State and want your paper at some place there, or else have given up the idea for the present; hoping to hear from you at your earliest convenience, I remain yours respectfully,

A. B. MARSTON.

Bangor, Maine, April 22d, 1873.

The foregoing is simply a specimen of the kind of letters we are almost daily receiving from some portion of the Atlantic States. The last winter with its terrible severity of cold and storm, seems to have stirred the thoughts of many an Atlantic border dweller, to earnest inquiry in relation to our climate, and country and its resources. We are always pleased to receive inquiries, and when in our power, to put in a full answer, and one always reliable. We will answer the above in the order in which they are put.

The alternate sections of land along the line of the road are reserved by government for the actual settler, and the railroad company will sell their alternate sections at very low rates, depending upon location. Nearly all the valley lands and much of the hilly land, where the altitude is not too great, will grow all the semi-tropical fruits. 2d. Wheat is a good crop in Southern California, on land suitably tilled, and receiving a fair, annual rain fall. 3d. In all plains not too remote from mills, water or railroad transportation, a not large but comfortable farmhouse can be built at a cost of from $2,000 to $3,000. 4th. Nut, olive, orange and lemon trees, can be procured at the nursery at from 50 cents to a dollar a tree, depending upon age and condition.

Cuttings of the best varieties of raisin grapes will cost at the vineyards $10 a thousand. Some rare and very fine sorts are worth a little more. One year old rooted vines, can be had from ten to twenty-five cents each, depending upon quality. 5th. On account of the peculiar dryness of our summer climate, it has less of an enervating influence than climates of equal heat, with the air saturated with moisture. 6th. A man *can* do a full day's work; but as there is no particular need of it, he usually indulges in a sweet siesta, or a quiet rest without sleep, during four or five hours of greatest heat; and what's the use of working all the time?

7th. Irrigation is not *indispensably* necessary for the successful cultivation of the orange; but unless the soil be of a very moist character, irrigation will increase wonderfully the size and juiciness of the fruit. The best oranges are unquestionably grown upon rather dry, but rich, mellow soils, judiciously irrigated. 8th. Men of good, ordinary gumption, with a fair knowledge of the rudimentary principles of agriculture, horticulture and tree growth, ought to succeed in farming in California; he certainly can here if in any country, and particularly if he adopted a system of varied agriculture with a diversity of crops.

9th. Good farm horses are worth from $60 to $300, just according to fancy, weight and endurance or all these combined. Cows differ even more in value than horses, depending much upon breed, fattening and milking qualities. A fair cow of common breed can be had for $50, a better one for $60 or $75, whilst there are Short horns, Jerseys and Devons of pure blood, that $500 or even a thousand dollars could not buy. 10th. The answer to this question depends much upon the man and the number in his family. If alone—which is all wrong—and able and willing to work, and "rough it" to some extent, as the saying is here, he could get along comfortably with $3,000. With a very small family even, had better have $5,000, and as much more as you are in luck to have.

Of the cost of land and what a man can do in one year, read in this week's RURAL under the head of "A Good Yield of Corn."

Letter from Danville, Ill.

If people don't wish us to publish the letters they send us, they should say so; otherwise when we find in them, that which we think will interest our readers, they will be very sure to find their way into our columns. We present the following as indicating a contrast of climates somewhat, and the effect that contrast is having upon thinking men.

DEWEY & Co., PUBLISHERS OF PACIFIC RURAL, SAN FRANCISCO CAL:—Yesterday we made the acquaintance of the "PACIFIC RURAL" through your issue of April 5th, and desire to continue the acquaintance, to the extent of the sum enclosed.

A respectable club can no doubt be obtained at this point by a little canvassing, with a few numbers of your paper.

We are located 120 miles directly south of Chicago, (in the so-called temperate zone, but very intemperate this winter), in one of the richest agricultural counties of Illinois, and it sounds somewhat out of season to hear of crops being assured and of preparations for harvest and etc., while here scarcely a furrow has been turned, and no grass yet for stock.

The "California fever" is prevailing here to an alarming extent, caused by our severe winter and backward spring, and aggravated by "Nordhoff" and other writers, and we would entertain fears of a serious loss of population, did we not know that the next two weeks will bring spring in earnest, setting our farmers hard at work and causing them to forget 30° below zero on January 27th last, or 6° below on March 3d.

If the impossible climate of your Ventura correspondent were within a day's journey of us we would expect civil war immediately for breathing room in such a paradise, where "it is never hot and never cold, and no earthquakes, rats or bedbugs."

In comparison with our extreme, however, such a climate is possible; but without rats or bedbugs? How is that, we'll start him a drove immediately as we have them to turn off. The symptons on this side, indicate that you will have the largest immigration of settlers this summer that you have had for many years.

We want to live in California, and we now resolve onrself into a committee of the whole on the state of our finances, to ascertain how to get there and how to live after we are there.

W. T. CUNNINGHAM.

April 20th, 1873.

Combination.

No one can object to combinations, for purposes of self-protection against other combinations. Nor can we reasonably object to associations for the purpose of regulating business, whether it be of labor or of commerce, to check overstocks and generally to promote harmony that best comports with public welfare.

How far the public interest sanctions such combinations as have doubled the price of gas and advanced coal fifty per cent. is a question. They are permitted by law, and we submit. But, as a rule, if the public is oppressed, opposition arises to rectify the aberration.

The mechanics combined to permanently advance wages, by refusing to allow our boys to learn trades, so that soon the now grown-up men would have the sole right to work, and the young men, as they grew up, would not come into competition.

This looked like a plausible scheme. But what has been the result? We have China merchants sharp enough to avail of so glaring an error. They argued that if Americans did not wish their sons to learn trades there must soon be a chance for Chinamen. This is the history that will bear record to the retribution that is sure to follow unwise councils.

Now, the mechanics are again in council, unanimously admitting their former error, and advertising for young men to *now* come and help to war against the Chinamen, whom their former policy put in the place of the boys, who in vain begged to be allowed to enter and to earn an honest living.

The question now is can they so readily undo the mischief. The laws of trade we have coerced, have opened our trades to Chinamen. They have become as knowing in the use of machinery as we are. Already we see how they can help themselves when discharged. They set up for themselves and thus production is still further cheapened. It is in vain to depend on further combinations to shut out their market. People will buy cheap in preference to dear goods. Then we may try and persecute them out of our county, how would that work? Would that not simply transfer the factories of our country to Asia, and if we now complain of the cheap labor of Europe interfering, how would our manufacturers fare, if they have to stand competition with Asiatics working in their own country and at one-fourth the price they get here! No tariff can save us. It seems to us very clear that Chinamen working in their own country would be more desirable than Chinamen working here. They consume more here, because of higher earnings and other causes; and if we educate them in our ways this would be ever improving.

It is one of the mysteries of man's curiously organized brain, that he rejoices in a new *machine* that will do the work of 100 men—a dumb, souless, non-spending thing—while he goes into fits, when 100 Chinamen who have souls and who are consumers of much production, come to do the dummie's work.

We write solely to awaken reflection. We erected a barrier—by combination—against our young men learning trades, and having in this, made one capital blunder by false reasoning, we are anxious not to make another. A.

Napa Valley.

EDS. RURAL PRESS:—Napa Valley is now gorgeous with the beauties of spring. Viewed at a distance from some eminence, it has the appearance of one vast forest of white and black oaks, in full leaf, with an occasional pine to enhance its beauty. A nearer view, discloses waving fields of grain, orchards and vineyards. The lanes and by-ways of which are carpeted with delicate little wild flowers of many hues.

A Beautiful Drive.

From St. Helena up the avenue by way of Mr. J. Lewelling's and the late Gov. Stanley's residence, to the White Sulphur Springs, I think is the most beautiful drive in the valley. Nature has done her part to perfection. Young pines, oaks, firs, madronas and manzanitas are so beautifully blended, the landscape so simple and natural, so harmonious, that man with all his boasted skill in nature, is left confounded. Further on you enter the gorge that leads to the "springs" walled in on either side by high precipitous mountains, their sides clothed with beautiful evergreen trees and shrubs, and the road shaded all the way with a dense growth of oaks and alders, and clinging to their bodies is the veritable wild grape, which spread out over their tops and hang in festoons to the ground. The "Springs," its hotel and many cottages, are embowered in a perfect wilderness of beauty and delight, just two miles from any starting point.

The Frost King.

On Friday evening the 4th inst., we were visited by a hail storm accompanied by thunder; at night-fall, the mountains were clothed in white, the snow reaching down to the valley's edge; and quite equal to the one, and only snow storm, we had last winter. On the morning of the 5th, the sky was clear, and the air biting cold; ground white with frost, and ice had formed to the thickness of window-glass in tules and water troughs.

When the sun rose and shed its warming rays upon the frozen herbage, a blackened unsightly scene presented itself to view; no wonder the "*Call*" correspondent thought the country ruined; fire and flood could not have done more, according to his account.

The prospect was indeed, anything but flattering to our visionary organs, to behold the vineyards that were the day before beautiful and green, now a wilderness of blackened stumps. Walnuts, figs and mulberries denuded of their beautiful green leaves; altogether the landscape wore a mournful aspect, the like of which has not been seen hereabouts by that venerable personage the "oldest inhabitant."

Prospects Brightening.

Over two weeks have passed, and we can form a better idea of the extent of damage done. The vines are nearly all sending forth new shoots, and I have no doubt will produce at least half a crop; and as the price of grapes will most likely be enhanced, the loss will hardly be very great.

A Visit Among the Orchards.

Early peaches and almonds are mostly killed; later varieties about one half; apples, pears and plums, are I think uninjured; I fear they are not thinned enough, as the tendency of fruit trees in this valley is to overbear. I should have mentioned elsewhere, that very late pruned grape vines were uninjured.

Sowing Alfalfa.

When I first came to this valley I was told that twenty pounds of seed was enough for an acre. After three years experimenting, I find from 30 to 40 lbs. none too much to get a good stand. Sow plenty of seed; if it is high in price, it will be cheaper in the end.

Want of Rain.

So far we have missed our usual April showers, and if they do not come soon the grain and hay crops will be much diminished in quantity. Corn crops are nearly all planted and up, looking nicely, and with thorough cultivation on a previously well-prepared soil, will make a good crop without rain. J. M.

St. Helena, Napa Co., April 19th, 1873.

P. S.—April 21st, we had a good rain yesterday afternoon (Sunday); ground wet down some two or three inches. Prospect of clearing off this morning. Crops will be much benefited.

J. M.

Breeding for Length of Staple.

EDITORS PRESS:—I wish to ask your advice in selecting bucks for a small band of sheep, and that you may be better able to judge, I will say my flock originated from common sheep, for the past few years bred to fine wool bucks. They average about four pounds this spring, wool, medium length and thickness.

My object is to retain the thickness and increase the length of staple. It would interest me as well as many of my neighbors to learn the direct effects on such a band of sheep of Cotswold, South Down, Merino and Shropshire Down. I bred to thoroughbred bucks of the latter, last season but am such a novice in the business I am unable to satisfy myself yet as to the merits of the crop. Half bred bucks sell here easily at $25, while other breeds come cheaper. I prefer Cotswold or South Down bucks, if I can increase the amount of wool by their use. I wish the opinion of a practical sheep breeder, one that is no more interested in one breed than another. I ask sheep breeders these questions here and receive an answer in favor of the particular kind they breed.

Please answer through the RURAL PRESS and oblige J. H. F.

As the RURAL PRESS meets the eye of many of our best breeders of fine wooled sheep, men who have given particular attention to the effect of judicious crossings, we would like to obtain an opinion from some one or more that would answer the query of our correspondent G. H. F.

Thorough Tillage.

EDITORS PRESS:—Receive the enclosed $4 and continue the RURAL another year; it is doing splendid work for the farmers of this State. We are having a pretty dry time of it, there has been no rain here for about seventy days; the small grain crop is improved a good deal, though I have noticed some good grain where the land had been thoroughly pulverized. This for small grain is more necessary than deep tillage. I noticed a piece in the RURAL last fall, advising thorough pulverization; as an experiment I tried twenty acres, plowed six or seven inches deep, did double or triple the amount of harrowing and had at least double the grain that there is on land adjoining. For holding moisture the ground must be thoroughly pulverized, the difference of course would not be so great in a wet season, but when dry, it is really wonderful to see what thorough tillage will do.

CHAS. LASALLE.

Santa Barbara, April 29, 1873.

The Canon of Niagara.

"On sober second thought," what do I think now of Niagara? I think as I did years ago. It is the grandest fall in the world. In the breadth of stream and quantity of water perhaps unequaled; but in picturesque beauty, and sublimity of the surrounding scenery it must yield to Yosemite. To a returned Californian miner the Cañon of Niagara seems more narrow and shallow than before.

J. R.

TWO QUESTIONS.—A correspondent desires information and answers to the two following questions:

1st. What is the best belting material—and cost of same—for out door use, say such as is used on threshing machines?

2d. The best material for packing glass tube water-ganges to boilers, and mode of applying it? Some of our engineers of field threshing engines can doubtless give us the information.

OUR DEPENDENCE ON EACH OTHER.—We are emigrants crossing over the plain together. God mixed things in this world. We are trying to select and bring things together that they shall be just alike; but God keeps things mixed. All classes of people are thrown together. You cannot sift out the poor from the community. The rich may buy land and lay out streets and build houses and keep away from people that are low and not allow emigrants to come near them—in a little corner they can do it; but in some way or other an equivalent will come up. The poor are indispensable to the rich. The roots of the prosperity of the rich grow among common folks. The life of a tree is dependent upon its roots. If the bottom suffers, the top will suffer also. And so men are dependent upon each other. You cannot get out of your social connections in society. We are mixed up, good and bad, honest and dishonest, just and unjust, mean and honorable. Men plead that, in all the innumerable ways in which they are brought in contact with their fellow men, they are tired of men. Well, I am tired of men, too; and what do I do? Just what I do when I am tired of any thing else. I go to sleep and become rested and refreshed, and then get up and go at it again.—*Beecher.*

TENS of thousands of Georgians are leaving the State by conveyances of every description. The press of the State manifests much alarm over the alarming exodus.

Miscellaneous.

The Dangers of Coal Oil and How to Avoid Them.

During the year 1872, fifty-nine fires—the largest number from any one cause—origiuated in Philadelphia, from the explosion of coal oil and lamps, and about 100 deaths were caused from these fires and from coal oil explosions, not attended by fires. This is an enormous loss of life and property to be charged to a single cause, in a single city.

The number of deaths from similar causes in the entire Union, during 1871, was about 3,500; and probahly three times that number were more or lsss severely burned or maimed. These facts have carefully been collected by insnrance companies, whose interest and business it is to collect snch statistics. This is a terrible record indeed; and when the fact is borne in mind that nearly nine-tenths of the casualties are the results of sheer carelessness, which the most trifling caution or forethought might have avoided, the problem hccomes still more perplexing.

The use of petroleum is still in its infancy. It is less than fifteen years since its introduction became general; yet the great cause of civilization cannot do without it. Like gunpowder and steam, it has become indispeusable. Like those agents, also, in the hands of knowledge, it is a faithful servaut; but in the hands of ignorance a terrible master.

The authorities of this city have heen and still are very much exercised over this matter. The necessities of the day will not permit its disuse, and beyond certain rules in regard to its sale our authorities cannot go.

The press is continually repeating its words of caution, and almost daily giving the particulars of such accidents, and often pointing out the particular phase of carelessness from which they originatcd. As we write, we call to mind several instances of gross carelessness, which did not find their way "into the papers," but which have recently occurred almost, and in part, directly under our owu observatiou, and in mostiutelligent families, where utterly, inexcusable carelessness came near resulting in serious casualties.

What is to be done? The first thing is to restrict the sale of illuminating fluids to the very best article the market affords, even if it cost double what the cheapest can be bought for. The price of the article is low enough, even at the highest figure—by observing this s the chief and first rule, a great number of accidents will certainly be avoided; for the more volatile the oil the cheaper can it be afforded, and the more dangerous is the compound.

Accidents often occur from the evaporation of cheap oils so filling a room as to render the gas explosive, as is the case when ordiuary gas escapes from a burner, and a light is hrought into the room—the gas is fired more surely and suddenly than gunpowder would be under such circumstances. When the mixture of gas reaches an extent of four parts of gas to one of common air, the compound is highly explosive. No family can be safe with a ca or lamp of kerosene standing near a hot stove.

A burning wick tnrned down becomes a live coal. It consumes but little oil and gives but little light; but it always heats the tube to a dangerous extent, thereby raising the temperature of the oil in the lamp, causing rapid evaporation, which is liable to find its way, in company with the right proportion of atmospheric air, to the small blaze, and an instantaneous explosion takes place. Never turn the wick of a kerosene lamp down very low, except when you do so to extinguish it.

Coal oil, when first introduced for general illuminating purposes, had a burning point of 125°, and was used with great timidity and care. The accepted standard has since been reducod to 110°, and familiarity has led to its more careless use. Dealers ofteu mix light oils with that of the 110° degrees of that standard, thus reducing it still lower, because the lighter oil is also cheaper; and moreover such a mixture gives a better light. Mauy customcrs will have the best light, careless or ignorant that the danger increases with the brilliancy of the light.

Dealers in light oils, to show the safety of their oils, make vain attempts to set it on fire in an open vessel. Let them fill a lamp half full with it, and allow it to reach the warmth that always exists in a lamp after it has been burning an hour, so that the vacant space may he partially filled with the oil vapor, and then try to set it on fire, and our word for it, they will accomplish the thing most effectually.

All the light forms of petroleum, when not closely confined, are constantly though slowly generating vapor, even when the temperature is not more than 10 or 12 degrees above the freezing poiut; and any oil that generates vapor, rapidly, below two degrecs, should be considered very unsafe.

A good and simple way of testing oil is as follows :—Take a small four-inch test tuhe, which cau be obtained at the druggist's for ten cents; fill with oil, place it in the ordinary temperation of a room in summer, and if the evaporation exceeds one-fourth of an inch in 24 hours, the oil is not safe. The hest oil will thns remain for days without any perceptible diminution. In the ahsence of a test tube, a two ounce vial will answer, bnt the evaporation will he much less, owing to the contraction of the neck of the vial. We recommend to every one to try some simple test before using any new lot of oil.

Paper as a Material of Construction.

The *Iron Age* contains an article on the use of paper as a material of construction from which we condense as follows :—Whether or not we are about to enter upon what will he known in the future as "The Paper Age," has lately become quite an interesting topic of discussion. Be this as it may, there is evidently a future for paper, in which it is to become the general, if not universal, snbstitute for wood, leather india rubber, and, to some extent, copper, tin, and zinc.

During the past few years a great deal of attention has heen given to this suhject, and the resnlts already attainod, though comparatively uuimportant iu themselves, show the possibilities of this matcrial and its more or less perfect adaptation to a thousand uses to which no one has yet thought of applying it. In proportion to weight it is, probably, the strongest material known, and combines more perfectly than any other substance the qualities of strength, lightness, flexibility, durability, and cheapness. So many and various are the materials of which it can be made, that it can be manufactured in quantities practically unlimited in every civilized country of the world, and so long as plants grow, paper maunfacture can be sustained. It is, under all circumstances, au easy material to work and handle; in short, it possesses every requisite quality, and, like many another material now indispensable, its utility is discoverd jnst as we are begiuning to feel the need of something cheaper and more abundaut than wood, leather, and hard rubber to substitute for them.

Some idea of the diversity of uses to which it has already been applied may be iuferred from the fact that, at the recent fair of the Franklin Institute, the display of articlos made wholly, or in great part, of paper, comprised oil cloth, patent leather, aud leather suitable for insoles, gas pipes, whip handles, saw handles, knives and forks, combs, buttons, washers, roofing and car-wheels. There are also many other uses to which it has been adapted, which were not shown, such as slats for window-blinds, panels for doors and ceilings, hoots, collars, cuffs, hosoms, etc. The Japanese, in fact, make almost every possible article of clothing of paper, from a pocket-handkerchief to an overcoat.

Even iron is not adapted to uses so widely various, and certainly no other material has yet been found which, at the same cost, could be made to answer so many purposes. These, it must be remembered, are but the first fruits of American inventive talent, as yet scarcely stimulated in this direction; and what may we not expect when, with a growing demand for manufactures of paper, there shall be more inducement than now offers for investigation and experiment.

Why caunot our railroad cars be made of paper, instead of iron, as proposed, so as to prevent the danger of splintering and hurning, in case of accideuts? As timber becomes scarce, our houses can be entirely built of paper.

It is said that paper pulp can be readily brought to such a state of toughness and solidity, by pressure, as to be almost as fireproof and indestructible as iron.

It requires hut little farther progress in this new branch of manufacture to so perfectly and universally adapt it to all the varied requirements of the human family, that "the coming man" would have little use for anything else from the time hewas placed iu his paper cradle until he should be "gathered to his fathers" in a paper casket.

Sawdust for Artificial Wood Work.—The use of sawdust for artificial woodwork, seems to promise a success. Alum, glue, and sawdust are kneaded with boiling water into a dough, which is pressed into moulds; wheu dry it is hard, and capahle of taking a high polish. Similar ornaments of greater beauty and resembling carved wood work very closely, are being made by pressing veneers between steel or copper dies.

Wire for Building Purposes.

A singular novelty has recently heen introduced in England—an invention for applying wire to bnilding and other purposes. The invention — which is due to Mr. Humphrey Turuer, of the Cardigan Steel and Wire Works —consists in the application of wire steel cut in strips, of iron rolled to special patterns, for walls, ceiling, roofs, and floors of bnildings, as well as for cisterns, water tanks, hrewers' squares, and other vessels. Its chief utility however, is in the erection of houses.

The inventor proposes to nse it in this way. The foundation is laid, and hrought up 12 to 18 inches above the grounnd. Cast metal standards and straining posts are fixed at certain distances. Wire, from a half to two inches apart, is attached to these, and strained from the posts through holes in the standards. Panels and proper stay posts are then fixed inside the wire at proper distances, varying according to the thickness of the walls required. While the walls—formed hy means of a concrete—are being raised from the inside, the plasterer may carry on his work ou the ontside, by laying on a superior material, consisting of cement and sharp sand. The walls having been hrought up to the hight rquired for the first floor, iron plates are then laid upon them, with holes for the wire to pass through. An iron or cast-metal beam is next thrown across the centre of the rooms from wall to wall, and wheu the walls are complete the wire is strained upon them throngh the plates.

In this manner, it is claimed, the whole of the building is securely "tied." The inventor thinks that the wire will supersede the use of floor joints of wood, and will, at the same time, form beds for concrete floors. Another advantage is, that they will serve on the under side as laths for the plastered ceilings, and the plastering may be carried on at the same time as the laying of the floor in concrete. The builder—or rather, wire worker—then goes on to the next floor, which is completed in a similar manner. When the hight is attained, the plates and heams are laid so as to give the necessary fall for the water, and a wall is carried on the top of the plates for three or four feet. The wires are then strained across the whole of the top. Concrete is laid on these, rafters and slates being thus dispensed with. For this, as for all new things, great merits are claimed—no wood save for doors, cupboards, sashes, and window-frames; houses almost fireproof, and vermin-proof as well. It will be a siugular circumstance if the manufacturer of wire, which has of late years been marvellously increased, should he extended to "stringing up" honses in the manner indicated hy Mr. Humphrey Turner's invention.

Proposed Sawing by Electricity.

We made mention some time since of the application, hy an American inventor, of electricity as a medium for sawing wood.

When an electric current is transmitted through a fine platinum wire, the wire becomes red hot. The invention in question is for utilizing this principle for the purposes of cutting wood. The patentee says that he was led to this novel applica ion of electricity by observing the facility with which a platinum wire, when raised to a white heat, effected the removal of tumors. It is anticipated that by means of this invention, which requires, so it is said, only a simple quantity hattery, trees may be felled and divided into logs, and other wood-cutting operations performed with more facility than by the usual methods.

An English writer throws a wet blanket over this proposed novelty as follows: "We venture to say that no tree ever has been felled or ever can be felled by this method. If a tree were a fusible substance, like soap or tallow, a red hot wire might no doubt be passed through it, but even then there would be a continuous absorption of heat in the liquefaction of the material which might prevent it from being a beneficial process. Timber, however, mainly consists of charcoal, which is infusihle; and although in a very superficial cut sufficieut air might obtain access to the heated wire to enahle the charcoal to be burnt, no such resnlt could be expected in the case of such deep cuts as are necessary in felling trees; and if the charcoal can neither be melted nor burnt how can the felling operation be performed? The most moderate penetration is sufficient to show that the scheme is visionary, and it will be time enough to believe that the felling of trees can be accomplished by this method, when the felling operation has been successfully performed.

Asphalt Paper is likely to become of great usc in many ways. In thin sheets it is useful for wrapping silks or other fahrics that need protection from moisture, for lining the cases, or packing boxes for pianos, etc., or rolled up into pipes for conveying water. Asphalt tubes are ouly one-fifth the weight of irou, will uot rust, and are quite tough and strong. The tuhes are simply sheets of paper, of a peculiar quality, dipped in melted asphalt, and then rolled upon a cylinder. A machine for preparing the asphalt wrapping paper consists of a hollow cylinder, heated by steam, and a wedge-shaped box, containing the hot asphalt. The box has a narrow slit, the width of the paper, and as the papcr passes, a thin layer of asphalt is distributed on the paper just before it passes the cylinder.

Iron and Steel in Early Times.

A late number of *Nature* gives the following interesting notes on the use of iron and steel by the ancients:—"Iron was not in common use till long after the introduction of copper. It is far more difficult to procure, because it is not met with in the native state, and the fusing point is very high. The metallurgy of iron is more complex than that of copper, and when obtained it is a more difficult metal to work. According to Zenophon the melting of iron ore was first practiced by the Chalubes, a nation dwelling near the Black Sea; hence the name Chalnps used for steel, and hence our word *Chalybeate* applied to mineral water containing iron. Steel was known to the ancients, hnt we do not know by what means it was prepared; it was tempered by heatiug to redness and plunging in cold water. According to some, kuanos mentioned by Homer was steel; but Mr. Gladstone prefers to conclude that it was bronze. Iron was knowu at least 1537 B. C. It was coined into money by the Lacedæmonians, and in the time of Lukourgos in common nse. It was used iu the time of Homer for certain cntting instrumeuts, snch as woodmen's axes, and for plonghshares. Its value is shown hy the fact that Achilles proposed a ball of iron as a prize for the games in honor of Patroklo.

Neither iron money nor iron implements of great antiquity have been found, because, nnlike the other metals of which we have spoken above, iron rusts rapidly, and soon comparatively disappears. No remains of it have heen found in Egypt, yet Herodotus tells us that iron instrnmeuts were used in building the pyramids; moreover, steel mnst have been employed to engrave the granite and other hard rocks, massive pillars of which are often found eugraved most delicately from top to bottom with hieroglyphics. Again, the heautifully engraved Bahylonian cylinders and Egyptian gems, frequently of cornelian and onyx, must have required steel tools of the finest temper. We have no record of the furnaces in which iron ore was smelted, hut we kuow that bellows were in use in the 15th ceutury B. C., in Egypt, and some crucibles of the same period are preserved in the Berlin Museum. They closely resemhle the crucihles in use at the present day." We may add that Mr. Layard fonnd an iron saw at Ninevah.

The Saucelito Railroad.—Of actual novelty in the work done on the North Pacific Coast Narrow-Gauge Railroad, we have little to note this week. On the Saucelito side the grading, cutting and filling is going forward with energy. A large force is now at work, the number of lahorers having heen increased to one hundred. During the week a mild attack of strike afflicted the men as to the date when they should receive their stipends. A few hours effected a compromise satisfactory to all parties. On the Strawberry Point side the surveyors have finished their work from the summit to near Collins' place, and have gone forward. This party is under the charge of Mr. Robert Finley. On this side blasting, filling and cutting is being done with as great, if not greater, energy than on the other side. The whole line presents a pleasing and busy scene. Workmen are going backward and forward constantly. Here the force of lahorers is constantly on the increase. At the tunnels at White's Hill work has heen delayed somewhat by the reason of a land-slide over the face of the large tunnel which took place during the week. However, the greater part of this has been removed, and the work into the tunnel is again going forward.—*Saucelito Herald.*

Practical Applications of the Electrical Light.—The disaster to the Northfleet has heen the means of directing attention to a powerful electric light, to the inventors of which the Academy of Sciences in Paris have awarded their great prize of 50,000f. It is the solntion of a prohlem that has occupied the minds of electricians for many years past, and it is the ouly method by which a continuous current can be obtained hy means of a magneto-electric machine. It is, then, specially applicable for producing a powerful light, to be placed on the foremast of an ocean-going steamer; for, in contradistinction to all other magneto-electric light machines, the simplicity of its working parts is so great as to enable it to be worked for months together without reqniring even the smallest attention. It can he driven hy a very small steam-engine, or by using a very small amount of the power of the engine which drives the vessel, aud the experiments made with it in Paris appear to have been so successful as to iuduce one of the great French steamship companies to adopt its use.

Carbon Water Filters.—Water standing in a glass globe, the mouth of which was stopped with cotton wool, showed after some days signs of vegetable growth ou its surface. The same water, filtered throngh a carbon filter into a globe free from air, also soon showed like signs of the existence of life. The same water after boiling remained perfectly clear for days. I therefore conclude that carbon filters are nseful only in purifying water from mechanical impurities, as sand, lime, etc., but that they cannot removo the so-called germs.—*Julius Muller.*

Danks, the well-known inventor of the Rotary Puddling Furnace, which bears his name, has invented an improved method of lining such furnaces, for which the furnace is said to be greatly improved in its weakest point.

Farmers in Council.

Farmers' Club of Sacramento.

Club met April 26, Vice President Holland in the Chair.

Mr. Kendall said as he was not present at last meeting when members reported on Clark's underground irrigation pipe, he wished now to say that he confirmed all that Williamson had said in reference to his experiment. He laid the pipe in July last and had to dig the trench through the hard baked red soil, as dry as a brick, eighteen inches deep. In this ditch he placed his pipe and turned on the water, and in a few days he commenced spading up the soil on each side.

He found the soil ten feet on each side well dampened up and in good condition as soon as a thin crust on the surface had been broken through. He prepared a patch and sowed it with turnip seed. They came up and grew rapidly and furnished his family with plenty of fresh, tender turnips. As he gathered the turnips here-seeded the ground and produced a second crop, keeping up the reproduction through the whole fall. From my experience I am satisfied that one rod of ground irrigated by the underground plan will produce four times as much as a rod not thus irrigated. He is going to extend his pipes as rapidly as he can, and thus form a continually producing garden on the dry plains.

Johnston here presented a sketch of a bliud ditching machine used for drainage and irrigation in some of the Western States. It is something like a sub-soil plow, the plow being diamond shaped and being forced through the ground eighteen inches below the surface, leaves behind it an opening or tube, the inner surface of which is made by the compactness of the soil. Through this tube any excess of water will run off and leave the soil in a good condition. By rnnning this ditch through wet or springy spots and extending it to dry places on an incline below, the dry are thus irrigated by the excess of water conducted from the wet places.

Aiken said he had seen a representation and description of the machine referred to by Johnston, and while it was undoubtedly a good underground drainage machine for clay or adobe soils, it was not intended to be nsed for nnderground irrigation, and was of no valne for such purpose.

A note from Captain Haynie was read by the Secretary, saying it was impossible for him to be present to-day, but in a week he would be present and would be prepared to discuss his resolutions.

Haynie's resolution was postponed one week, and the Club adjourned.

Meeting of May 3d.

Vice-President Hollsnd in the chair.

H. W. Odell, J. M. Stevenson and Robert Gardner were proposed and elected members of the club.

E. F. Aiken from the committee under Mr. Adams' Branch Prieon resolution, reported that the committee had not yet heen together and were not yet ready to report finally, and aeked furiher tiue.

Judge McKune, Chairman of the committee, said Mr. Aiken had called on him to write a letter to the Siate Prison Board, but for himself he thought the action of the club ill-advieed and had declined to carry out their wishes in the premises, and wae going on to discuss the resolution adopted and state his reasone for not acting, when Mr. Adams arose to a point of order—that the resolution had been passed and that the action of the club in the premiees was not a proper subject for animadversion now.

Judge McKune then declined to act on the committee, and further time was granted.

Politics.

Captain William Haynie's resolution being called, Mr. Haynie said after a little more thought upon the euhject he had conciuded to offer a substitute for the resolution before offered hy himself. The substitute was a little more full. He read the substitute, as follows:

Resolved, That this club requeet the Executive Committee of the State Farmers' Union to call a Convention of delegates from the differeut clubs and farming districts throughout the Stete, at an early day, to consider the propriety and necessity of making independent nominations (politically) for members of the Senate and Assembly, in the interest of reform, agriculture and all other indusirial intercsts of the State.

The club accepted the substitute, and the Captain then read the following remarks:

Mr. President and members of the Sacramento Farmers' Club: When I offered the resolution now up for discuseion it did not strike me at the moment that I wee getting myself into a scrape; but so soon as my friend Mr. Lockett seconded the resolntion, and moved that it he laid over for one week for discussion, and that I be invited to give my reasons for introducing the eame, or in other words, that I he appointed to lead off in the discussion; then I realized that I had put my foot into it, and had undertaken a big taek, a heavy task, and a hard task. But, Mr. Preeideut, a task, shouid the plan ever be consummated and succeesfully carried out in all the Statee and Territories of our heloved land, will result in a glorious political, financial and moral victory, which will purge from our National, as well ae State legisiative hails that deep and damning syetem of vice and corruption which is fast sinking both, politically and morally, into disgrace aud rnin. I feei, Mr. President, how utterly incompetent I am to do justice to the subject. But, sir, myself in common with thousande of the industrial classee of our laud, and especieily of our own State have loug been waiting patiently and silently uutil hope deferred has made the heart sick, that eome of the noble, honest and capahle men among us (of both political parties) would renounce their allegiance to partisan corruption, and eepouee the cause of the people against the political chicenery and corruption of the political parties as they now exist.

But, sir, the first drop must always fall before the heavy rain, and as it is in this case, a very small and insignificant drop, yet I hope it may not be deepised; for I believe that it is only a precurser of what we will see in a few years (if we are faithful to our trust), a mighty rain, that shall he to us, as a people, a great political purifier, aud draw out the corruption now so prevalent in our national and State Legislatures. And how much do we need just such rain. Come, gentlemen, let us take a look through our large cities. We'll take a walk by daylight; it is near election time, or nominating conventione are eoon to be held. We'll to the Grand, the Union, the Lick snd other hotels of more or less note. There, you eee that group of finely dreseed gentlemen (they are called)? Well, come, let me introduce you.

"Good morning Mr. C. Discneesing politics?"

"Well, yes. If we don't do something to keep our party pure, we are gone up, snre."

"Mr. C, let me introduce to you and your friends a number of my friends from the agricultural counties—farmers."

"Good morning, Mr. A, B, G, F [bowing very low and courteously]; why, gentlemen, how glad we are to eee you, have juet been discueeing questions of great political interest to you farmers, and we all agree that the farmers' intereet must be looked after. Come let's have a emile all round. What's the news from the country, Mr. A? Hope the people sre all sound on the main question?"

"Well, yee, Mr. C; I believe they are; hut we snppose that you are aware that the people, end farmers in particular, are demending from both political parties a platform that shall be broad and compreheneive enough to eepouse and advocete their political rights, and that will place their nominees in a position to advocate and work for their rights."

"Well, Mr. A, what wonid you suggeet as planks for the farmers' interests in our platform?"

"Well, Mr. C, you and your friends here seem to be our trne friende, and we will just etate thet—

"First—We want a plank pledging economy and stopping corruption.

"Second—We want a law that will compel every man to take caro of his stock and not let it est up his neighbor.

"Third—We want this onerous growing crop tax repealed, for you know that the Assessors come sround aeseesing in March, after wbich time very often the rain ceasee and the north wind hlights our crope and hopee, and our wives and little onse have to go bsrefooted, half-naked, and hatlese. And we men feel that instead of freemen we are perfect eisves or serfs, and we are forced to get a month's or week's labor somewhere to pey the taxes on what we heve spent in tryiug to improve our own condition and society around us, but which, alas! hae become only a eource of revenue to the taxgstherers. Aud should we make a crop and receive a small pittance for it, we must spend a greeter portion of it in improvements for which we will he taxed the next year.

"Fourth—We went the Specific Contract Act repealed, that we may be on sn equel footing with our sieter States on the currency question.

"Fifih—We want a law for the regulation of freighte and feres on our railroads. Making them uniform and just, as between the railroad company and the farmers; in fect, the people and the farmers have determined that there muet he reforms of a radical character, both in State, county and municipal officers."

"Well, friend A., we'll see to it that when our platform le presented to the convention for adoption it ehall he satiefactory to the people and farmers. Hope you'll teli your neighbors when you go home that your friends in the city will see to their interest politically." Exit Mr. A. B. G. F.

Now gentlemen, let us take a peep into the secret chamber; or, if we cauuot get a peep, we will lisien at the keyhole, when aesembled at the mid-night hour in secret conclave these eame (eo-called) gentlemen are gathered; they have received full instructione from their meetere, and are told to be as wise as serpents and ae harmlses as doves; and to him who can display the greetest amount of villainous tact and talent, and use the moet deceit end deception in furthering the intereet of the great corrupting power succeesfully, to him ehsil be given the biggest piece of pie that can be found in San Francisco Federal appointments. Aesembled in that room are all of the members of the State Central Committee who sre pledged to and bound hy the great corrupting powers, as well as all aspirante for office who are in the same boat, together with our friend, Mr. C, and his friends; all others are excluded—doors shut and holted—end now for bueiness. The first speaker, Mr. S, addreesing himself to Mr. C and his squad of spies: "Well, gentlemen, what have you to report? How about the situation? What are to be our tactics?

Mr. C—"Weil, gentlemen, we heve interviewed the people and the farmers thoroughly, and no mistake. They are in earnest, snd their demands are swful, and any gentleman preeent who le not provided with a powerful elastic conscience, a terrible big mouth and a huge stomach, had better absquatulate before we make our report, for we can assure you tbet we have some terribly bitter pills to swallow, and we have heen creditahly informed that our oppouents of the other political party intend to swallow them, and if we do not we will go up eure, and we will be dead beats for four years at least." Silence for the space of ten minutes. Mr. C risee—"Well, gentlemen, as none of you seem disposed to leave, I take it for granted that you are all true blue, and will prove faithful unto the end. As we have said, we have examined the people and the farmers, and they demaud that we pledge ourselves to economy, againet corruption, repeal the fence law, repeal the tax on growiug crops, regulate freights and fares, repeal the specific contract Act," etc., etc. Another eilence for five minutes. Mr. C. risee again—"Well, gentlemen, what will yon do with the proposition? Can we get it into our plaiform, and if eo, how can we deceive the people after we adopt it? How is it with you, Mr. J. C. R. S. W. V., can you take stock in the platform contaiuing the plenke?" Mr. J.—"Yes,-sir-ree; we see no difficulty in takiug our share of stock in the platform; but we do so with a positive mental reservation. If we are nominated and elected then our mental reservation will be a grand reserve to fali back upou when any inducemeut is offered. Aud should we fail of election then we can remain champions of the people and farmers, which will place us in good position et the next election."

Mr. C. and squad, with the members of State C. C. (simuitaneously)—"Bully for you, gentiemen. Mental reservation: that's good; how devoted you are to the cause, and how liberal and delighted will be our masters when they hear of this piece of strategy. Well, Mr. H. How is it with you? Can you take stock in the reform platform?"

"Oh, yes, I'll have no difficulty. I'll jump right on board of the most radical car you've got in the piaform, and, you bet, I'll put on steam and I'll go to the Legislature or hurst her boiler, that's sure; and then you know as soon ae we reach the Capitol I'll jump off and tell the engineer to go on, ae I do not intend to ride on that car any further."

"Good for you; how glad you make our hearts (from a half dozen voices); you staud a chance for that big piece of pie, sure."

"Well, Mr. S., what do you say? How much stock will you take in thie hiiter-pill operation. Mr. S.—"Well, gentlemen, I must confess that the gentiemen who have preceded me in accepting the eituation in eo statesmanliko manner, have almost taken the wind out of my sails. But eiill not to be onidone, and to prove to you bow profonndly devoied I am to our masier'e cause, just put me down for two bogeheeds of stock in that reformatiou project." (Great excitement.) (Half a dozen voices simultaneouely), "Why, Mr. S., yon cannot carry that load; it will swamp you in utter ruiu." Mr. S.—"Keep cool, gentlemen, I'll uianage the two hogsheads."

Mr. C.—"Gentiemen, I hope you will not get nervous. Give our friend S. a chance to explain."

M. S. (rising to explain)—"Well, gentlemen, I intend to go the whole hog. I am aiming very high for something to catch flies on. I'll never get so high as to earn that piece of pie. Consequently, I shall have to fill those two hogeheads full of molasses; for you must know that the people and the farmers are just as easily caught as so many flies, and in all my speeches I'll just tell them to bring out their plates and I'll fill them with molasses. Yes, and when one of them opens his mouth I'll just pour a cupful down his throat. Then, if he ever had any donbts in reference to me, they'll vanish like the morning dew before the summer eun."

Mr. C.—"Now, gentlemen, as we have finished our work so satisfactorily and pleasantly, we may as well adjourn. Rise, gentlemen, and I will pronounce the benediction.

'O, conscience, where is thy sting
Of hiush?—where is thy shame?'

Thanke be to our masters, who heth given us the victory over our conecicnces and our hiushee." This, gentlemen, I will admit, is a very ludicrous scene, drawn in somewhat of a humorous style; but I suhmit, is it not a true statement of facts when applied to the wire-pulling and villainous corruption of the political parties of the present day?

Mr. Preeident—It is hed enough to have uominees accept with a mental reservation, but, sir, how high the crime, how deep the infamy, is that American citizen sunk in, who, after having been elected and elevated to an office of trust and power hy the suffrage of a free people, to tell them, when the issue is made between the people and oppreeeive corporation, that he used their platform as moissses to catch flies, and as a railroad car to ride into power. Then, I ask, is it not time that the farmers and induetrial classes cut loose from all political partiee and elect men to the executive, legisietive and municipal offices upon a platform with a pens ty sttached to it, which they should know should and would be summarily visited upon any who dare turn traitor to the csuee of right and good moral government. Sir, I heve been asked the question very often hy men of influence and talent (I mean moral influence) of both political parties, "Whet do you intend to do? Can you not take a political stand against the wide-spread and demorslizing infinence of political corruption? The people are waiting; only make a move in the right direction, and cut loose from partisan influences, and you can control the State politically." I do not believe to-day that you can find more than 25 hona fide farmers in this county who do not stand ready, yea, they are longing and waiting, that we should make some move looking to their liberation from partisan political thrsildom; and I have been repeatedly assured hy both Repnhlicans and Democrats that they are sick of their parties; that there is no hope of a hetter condition of things, politically, until the people take matterein their own hands and ruu the government in the interest of the greatest good to the greatest number.

And now, Mr. President, I think I have shown and fully demonetrated how candidates can and will indorse a pletform demanded by the people, and at the same time belong, soul and body, to a corrupt political ring, and after they are elected ignore all their promiseе and pledges given before the election. And is it not neceeeary and high time that the flood-gates of pnblic opinion should he opened and pour out a deluge of rain thet ehall waeh out thoee dirty, corrupt cees-pools of political iniquity, and keep on flooding them until the rate that live in and hy them ehall come out washed clesn snd white and purified from all corruption?

There wae a word used when I was a boy that carried with it reproach and shsme, and the man who was found deserving of ite stigma wee disgreced in the eyes of all good men; that word was "ingratitude." How tame the world; how meaningless ths sound to-day; how little men care for public opinion to-day! Look at the daily independent presses of our cities, how their columns are deily fiiled with acts of fraud, corruption and oppresion, under both nsiional and State patronage; and what perjury snd stealing, and sham investigations and whitewashing reports; and then the bsre-faced robbery of the last Congress in voiing back pay to themselves of over one million dollars. Again, ths barefaced effrontery of Seuatore acknowledging ten, fifteen, twenty-five, yee, fifty thonsand dollar fees for advocating railroad and other robbing schemee before Congress! It has been truiy said that we cannot stand this preesure much longer; if we do, our nation will be bankrupt, our energies paralyzed and our people demoralized. Again, farmers of our country, how lightly and with what contempt are your own lives and the lives of your wives and little ones held by those now in power in Washington? See the great distinction and valuation of life between ths farmers and their wives and little ones, meesacred by those red devils, the Modocs. Without cause or provocation some twenty-five cold blooded murdere have been committed, and under orders from the President, Secreiary Delano and the General of the Army to the Department General of this coast—in snhstance—you muet not attempt to avenge the death of thoee farmers aud their wivee and little ones, but assure them (the murderers) thet all the Government requires is for them to surrender, and we will protect them from tho civil law and provide them with all the comforts of life. Only, gentiemen, the propoeition was eo preposterous that the Modoce would not helieve it themeelves; if they had I am satisfied they would have surrendered at once. But how soon the feeling was changed—how suddenly tho gentie lamb was transformed into the tiger and the dove into the vulture. And why? Two more American citizens killed and one severely wounded. These we loved, and our indignation against the murderers was great, and our sympathies for the survivors of the murdered onss was genuine. But they were men—American citizens. And so were the farmers and their wives and little ones. Shsme on the rulers who can look so coldly and unconcerned on the lives of farmers and their household gods? Does not public opinion in high places want elevating to a higher sphere of sympathy for the farmers of our land? And shall we not demand it ae freemen in the name of Liberty?

R. S. Lockett said the Cluh would see that he owed them an apology, for, though he had been appointed to discuss this subject, he had come entirely unprepared. Hs agreed with Captaiu Haynie on the general proposition that there was great nececeity for reform in our political matiers, yet as to some of the propositione brought forward hy him, he disagreed. For instance, he could not see the necessiiy of repealing the specifio contract act. We have a gold and silver circulating medium, and he cannot see the heuefit we will receive in introducing paper money. Paper is fiuctuating while gold is etahle.

As to taxing growing crope, this shouid not be allowed—it worke injustice to individuals and discourages enterprise. A short time ago, the Assessor came to his place and assessed his land and all his pereonal property; on assessing his land he added to ite value according to the apocarance at that time of the grsin, the grapes and the fruit. In a few days the froet cut off ths grapes and some of the fruit, and now the dry weather and north wind hae nesrly ruined the prospect of the grain. So that I shall be compelled to pay taxes on what I lose, beeides suffering the loss. No property belonging to any other class of mcn is thus subject to such unjuet taxation.

He believed that a couvention of farmers and other industrial classes could contrive a plan to make taxee just and uniform. As Captain Haynie has said, with the preseut syetem of conducting political partiee, the correction of these evils seems almost impoesible. The nominations are siready agreed upon before conventions; the party committees have it all fixed up; the slates all made and the honest wishee of the farmers and industrial classes are cheated. He had seen this done so often he had become disgusted, and had for himself concluded in all casee to vote for the best men irrespective of party.

Wm. Kendall said perhaps he was behind the times, but to his mind everything has a remedy, there was a remedy for thie nnjust and exorbitant taxation, and the remedy was easiiy applied when we found the cause. The trouble ie hlgh saiaries. Begin to preach the reduction of salaries of all public officere and you begin at the right point.

Colonel Baker, in his last speech in this city, advised to hold all puhlic servants to a strict accountahility. Rednce salaries and other expensee, and the nsceeeity of high taxation is done away with, and the temptation to had men to use improper meaue to get into office will be removed. He would conneel cautious action; be careful and not go to extremes. Illinois a few years ago reduced the salaries too low, and brought ridicula on the reform, and reaction was ths consequence. Whsn we siect a common man to office, his expenses of living at once increass to such an extent that even ths high salaries do not snpport him. He would like to see the times of Thomae Jefferson return, when the President could go out in his Kentucky jeans and feed his hogs and take care of his cows. He here related the etory of Girard and the young officer. You oppress labor, and yon oppreee the country's best interests. Ths professions all charge oppressive feee—the lawyers and doctors—all. Once for all, any system that does not stand on its merits should and must fall. Now hs was in favor of going back to old times, and any candidate that will not go in for the redneticn of salariee should be laid on ths sheif.

J. H. McKune said he did uot know that he understood the subject. He did not know enough about the working of local clubs to be ahle to determine whether the plan of action as sketched hy the resolution was practical. We have to coneult other interests and other people thsn farmers; there is but little time now to organize. If the subject had been brought before the late Farmers' Convention, perhaps something might have been done. This county, for instance, is composed of all classes, and it is doubtful, if the farmers should undertake to put up a ticket, whether they could elsct it. We are not orgauized. We must coneult the intereste of the city as well as ths country. Cutting loose from all parties, and only including farmers in the new party, we will likely meet with defeat. We must look after the laboring classes, and the farmer is not the only class that gives labor employment, and that has influence over them. He was inclined to think if they sot their faces direct against freights and fares, they will even then drive some laborers from them. If the whole State was well organized, perhaps the move might be euccessful. The resolution called for delegates from agricultural districts outside of farmers' clubs, and seemed impractical. Difficulties of equal representation would occur, and many other difficulties would have to be overcome.

Captain Haynie said Judge McKune saw a great many difficultiee, and launched out into general answers to the Judge's specific difficulties.

McKune said he was only suggesting difficulties that had to be overcome. Hs was in favor of ths resolution. We are on the eve of an election of county officers and members of the Legieiature; and perhaps the Executive Committee have the authority to call a convention and designate disiricts and representation, appoint central committees, etc. The resolution seems crude, but perhaps it will do good, and he would vote for it.

Robert Williamson said hs was no politician, but he believed the resolution well-timed. Enough has been said to convince him that we should seek a remedy for ths evile nnder which we are laboring. There is always a cause behind an effect, and we must find the canse and apply ths remedy. But, as Judge McKune had said, there are many things to be considered. It might be well for the Executive Committee to call a covention and then look the field over. Let the resolution pass, and then if the Committee should not think best to call a convention, iet us submit to their better judgment. It could do no harm to pase the resolution.

E. F. Aiken said the question is, How shall we get at a practical plan as a remedy? Bnt hs was very much in doubt if we as farmers are prepared now, unorganized as we are, to cope with professional politicians. The Eastern States had taught us ths way out of difiicnlty—they were orgsnized. The Patrons of Husbandry were a power there, and instead of forming political parties we should form Granges of the Patrons of Hnsbandry and prepare to look after our own business interests. Our troubles are more of a business nature than political. If we go forward and organize for business we shall command the respect of all. The time has come for farmere to unite—but hs doubted the policy of political action now. Let us do nothing to divide and distract us.

Mr. Kendall concurred with McKune in many things. He wanted it understood that he was not in favor of combining any influences that were not honorable. He was glad to see some profeseional men among us. We may have use for them.

C. W. Holt said he was inclined to think the action premature. What we have done is preliminary, but we want to perfect our own farmers' organization, and perhaps when organized we may find it convenient to use our power. We have no compact organization in this State, and cannot combine in time to do any good. The fault ie all our own. We have laid atill while all other intereste have got the advantage of us. We are now proposing to enter the field without organization against all other interests. We had better look before we leap. As Mr. Aiken said we had better complete our own separate organization before attempting to run the politics of the country. Let us not destroy ourselves.

T. K. Stewart thinks now is the time. We must cut down salaries and taxes. The Government coste too much. The whole conntry is awake and ready to join our move.

H. W. Odell said it might not be amiss to relate a little experience. Some four or five years ago he and seventy-five other farmers formed a club down on the Sacramento, and determined that they would be imposed on hy the middlemen no longer. They met and talked their grievances over, and made bold speeches against the merchants of San Francieco. Some of ns became quite eloquent and said some good things, hut while we were talking the merchants sent up their clerks and agents to join our club and learn all our plane and spot the leaders. The result was they entered into a business organization against us and actually forced many of us out of the sweet potato business. Now, hs had come here to join a hueiness organization that could keep its secrets and do hnsiness on the same rules that other business associations adopt. When the farmers come together on such terms, he was in. He could get enough of politics eiewhere.

Mr. Denton thought the resolution in bad time. We are losing time to discuss it.

P. H. Murphy thonght we are on the right track, but we are not prepared to enter ths field as a separate political party. The better way is to select the best men and vote for them. Farmers, when they become politicians, are as corrupt as auy other class. Our interests are not entirely distinct, but are the same as those of many other classes. We are taxed heavily, and want taxes reduced; but farmers are divided, and if we put a farmers' ticket in the field the farmere will not nnite on it. Men go for their self interest and not for principle. For instance, our Sheriff's office ie divided up between Democrats and Repnblicans, and handed down from one to another in ths same ring.

A considerable discussion here took place as to the effect of the resolution, and it seemed to be generally agreed that the resolution was not binding on the Executive Committee, but left them to act or not, in their discretion.

Grove L. Johnson said hs thought the resolution a good one. He was in favor of it, in general terms, as he underetood it, but hs came in late and did not hear all of Capt. Haynie's epeech, and thought action had better be postponed, to give all a chance to speak to it.

Judge McKune said he wonld offer an amendment, which would only ask the Executive Committee to consider the propriety of a general political movement, and if the committee think best they call a Convention.

The amendment was accepted, and in this form the resolution passed.

Patrons of Husbandry.

Mr. Aiken moved that a committee of five be appointed hy the Chair to prepare for the organization of a grange of the Patrone of Husbandry in this city.

Carried; and Messrs. Aiken, Haynie, Manlove, Adams, Hoit and Hoag were appointed a committee.

Strawberry Festival.

James Rutter moved that the club have a Strawberry Festival one week from to-day, and that a committee of arrangements be appointed. Carried; and Messrs Rutter, Williamson, Stewart, Murphy, Aiken, Manlove and

Hoag were placed on the committee. Rutter announced that the committee will meet on Tuesday, at 12 M., at the store of J. R. Johnston & Co., J. street.

The committee on Patrons of Husbandry agreed that they would arrange for the organization of a Grange on Saturday evening next, after the festival.

The club adjourned for two weeks.

Merced Farmers' Club

The Merced Farmers' Club met Saturday, April 26th, President Jolly presiding.

It was moved and carried that each member of the Club be assessed ten cents for the snpport of the State Farmers' Club, correspondence, etc.

Delegates to the Farmers' State Union presented their bills for payment of expenses, which was paid.

President Jolly then addressed the Club on the necessity of having a system of irrigation, and stated that a party was now willing to negotiate with the Clnb on that snbject. The President thought the subject one which the farmers wonld do well to agitate.

Mr. Fowler said that irrigation was what the farmers of this valley wanted, and even though they shonld have rain at this late day preparations should be made to avail themselves of its advantages next season.

It was ordered that a committee of five be appointed to confer with parties holding water franchises, to report as soon as practicable to the Club, and Messrs. Fowler, Gray, Donglas, Elliot and Rhodes were appointed as such committee.

"Irrigation, if practicable, in this valley," was chosen as the subject for discussion at the next regular meeting.—*Merced Tribune.*

San Jose Farmers' Club.

Club met April 26th, President Casey presiding.

Mr. Holloway being permitted to speak to a question of privilege, referred to the article in the *Bulletin* censuring the Club for its discussion on the greenback question. He condemned the article as showing the influence of the monopolies in their outrages npon the prodncers. He read the *Mercury's* reply to that article, commending the same, and in conclusion offered the following resolution, which was nnanimously adopted.

Resolved, That the thanks of this Club are dne the editor of the San José *Mercury* for his timely rebuke to the San Francisco *Bulletin*, for its unbecoming attack upon the rights and privileges of the Club, and that in our opinion no farmer should patronize the *Bulletin*.

Mr. Herring read an article from the *Commercial Herald* of San Francisco, in which ridicule is sought to be cast upon the efforts of the Farmers' Union in taking measnres to protect themselves from the encroachments of the monopolies.

The Secretary also reported that Col. Younger had notified him that he had been appointed a delegate to the National Agricultural Congress, to meet at Indianapolis on the 24th of May, and that, if the Club had any propositions to lay before that body, he would take pleasure in laying them before the Congress.

On motion of Mr. Holloway the matter was referred to the Board of Directors, with instructions to confer with Col. Younger on the subject.

On motion Col. Anderson was elected an honorary member of the Club. The Colonel responded in a neat speech, in which he said he was willing to pledge all he had to secure to the producer a fair compensation for his labor. He thought that in order to make the organization effective it shonld be secret.

No question was appointed for discussion next Saturday.

Gold Notes.

Mr. Hobson wated to know how it was that nnder a State constitution, that restricts ns to gold and silver as a circulating medium, we have over a million of dollars of gold notes in circulation.

Mr. Holloway said these notes were not a legal tender.

The qnestion for discussion was, "Resolved, that in all civilized States agricnltnre is the parent or real foundation of all other business; and that all compensation, for both public and private service, shonld be reckoned with reference to the proportional earnings of the industrions farmer."

Mr. Cadwell said that it was a self evident proposition that all wealth of whatever class or character, comes from the soil, and that therefore it mnst be the fonndation of all business, and that it was a logical deduction that all compensation shonld be in proportion to that of the parent bnsiness, agricultnre.

Mr. Holloway said he was desperately down on the "gougers," and railway companies, monopolies, and thieving officials generally. He had met many men who were down on these things too, bnt chiefly because they were the gonged and not the gougers. To make any success in our proposed reform, we mnst be actnated by something more than mere selfishness. He said the resolution under discussion was exactly right, bnt we see the reverse in universal practice. He did not care much, at the present time, about the remedy; it was enough for us to establish the proposition, and the remedy would present itself without any tronble on our part. The agricnlturist is the employer of every other class of people, and all others are subseqnently employés. When an employer pays his employés more than he can make ont of his bnsiness, bankruptcy or snspension is the natnral consequence. There can be no such thing as snspension of agriculture; hence it is evident that some measure must be taken to make it profitable, to reduce the amounts it pays to the other class of business—its employés. The compensation of these employes must be "in proportion to the earnings of the industrious farmer." Agriculture should be the best paid and the most honorable of all pursuits.

Mr. Bergland said the only way he knew of to get public officers without paying them immense salaries was to let the offices out to the lowest bidder, the same as contracts are let. We require sealed proposals for county buildings, road work and bridges, and why shouldn't all the county work be done under the same plan.

Mr. Hobson said the reason why the farmers did not get better pay was because they did not talk enough. They ought to gather in their school houses and talk. They have got to stir themselves and let the people know they are awake. He said we had jnst as good men on onr City Council as can found anywhere, and they work without pay. We could get onr Legislatures in the same way if we would.

Meeting of May 3d.

Club met May 3d, President Casey presiding.

Mr. Hobson presented the report of the Treasury of the Club from its organization to May 3d, 1873, as follows:

Received from all sources		$588.00
Paid rent	$429.75	
" Furniture	41.00	
" Work on Stalls	69.00	
" Snndries	43.12	
Total expenditures		$583.37
Balance in Treasury		$4.63

On motion it was resolved to call up some one of the questions lying on the table for discussion next Satnrday.

Mr. Geiger asked if any member of the clnb had ever used spent lime to destroy cutworms and other insects around fruit trees. On his place he said the cutworm was very bad, as many as a hundred being found near a single tree. They destroy the bark, and eat off the leaves and the heads of the young shoots. He wanted to know some remedy.

Mr. Cadwell said he knew of lime being used for the curculio; it will prevent larvæ from going down to the foot of trees.

Mr. Haskell thought lime would kill the cutworm, bnt could not say whether it would hurt the tree.

Mr. Peebles said he had used fresh slack lime with success on vegetables.

Mr. Chipman said he had successfully applied wood ashes.

Mr. Dubois wanted to know whether any disease of a fowl can be transmitted through the egg.

Mr. Bergland said the eggs of young ducks did not produce healthy fowls.

Mr. Casey said it was an established fact that no unhealthy animal could produce healthy offspring.

Mr. Bush presented information in regard to a new style of fruit basket manufactured in the East, constructed for shipping small fruit by rail. The baskets are made elastic so that the jar of the travel will not affect them. The price per basket is 20 cents at the factory.

Election of Officers.

The club then proceeded to the annual election of officers with the following result: President, Benj. Casey, re-elected; Vice-Presidents, Haskell and L. H. Chipman, re-elected; Treasurer, Jesse Hobson, re-elected; Secretary, S. H. Herring, re-elected; Board of Directors, Oliver Cottle, re-elected, and Pomeroy.

Mr. Casey said he expected to resign in a short time; that he was tired of seeing so few present. If he served as President he wanted to be President of an organization, not of one or two individuals.

On invitation Mr. Peebles said in relation to the narrow-gauge railroad that the right of way was nearly all secured from Santa Clara to the Bay. He also said that a proposition had been received from parties in Santa Cruz for building the road over the mountains from Santa Cruz to Alviso, and this proposition had been under negotiations for several weeks.

There is a subsidy of $240,000 dne from Santa Cruz county to two different roads; that these roads were not looked upon with favor by the majority of the people of the county, and that there was an almost universal desire to divert this snbsidy to the road across the mountains.

These subsidies had been granted $6,000 per mile, for a road from Santa Cruz to San Mateo county line, and a hundred thousand dollars from Santa Cruz to Watsonville. Neither of these snbsidies had been accepted as yet, and it was proposed to consolidate the Alviso Company and the Santa Cruz Company forming an entirely new organization.

Mr. Cottle wanted to know what the heavy capitalists of Santa Crnz would do with the road if they managed to get a majority of the stock; whether they would use it for the benefit of the people or run it in the interest of some monopoly, or sell it to the Central Pacific. He thought that Mr. Hines would probably own most of the stock, as his land extended nearly the entire length of the proposed route, and he wanted to know what security the people wonld have that the road would not be sold to the Central Pacific.

Mr. Peebles said it would be directly opposed to Mr. Hines' interest to allow the road to go into the hands of the monopoly.

Mr. Cottle thought the Central Pacific could make it to Mr. Hinds' interest to sell ont. He would rather Santa Cruz county wonld take stock than to grant a subsidy, for in that case the stock would be in the hands of a party who would have a vital interest in keeping the road out of the hands of the Central Pacific; it would be safer than to have it in the hands of a few individnals.

Mr. Peebles further said that the Alviso Company had money enough subscribed for stock to build the road to Alviso, but the company did not like to call for it all at once. They wanted to make the subscription so large that only a small amount would be needed at a time.

Mr. Cottle said he thought no one had subscribed more than he thought he conld pay, and he also thought all would be willing to pay down all they had snbscribed rather than not see the road bnilt at once.

Mr. Peebles said the snbscriptions were taken with the understanding that only a small percentage should be called for at first.

Colusa Farmers' Club.

BRIDGEPORT, April, 24, 1873.

EDITOR SUN:—I am requested by the Farmer's Clnb at this place, to have notice of our meeting published in your valuable paper. Our meetings have heretofore been held on Wednesday evening of each week, bnt by a vote of the Club at the last meeting, it was decided to change the time to Saturday afternoons at two o'clock. We are desirous of having as many as are interested in the objects and success of this association meet with us, and discuss the issues of the day as they present themselves, in our deliberations. Membership fee, one dollar; annnal dnes, fonr dollars, payable qnarterly in advance.

We are contemplating converting our Clnb into a Grange, the same being a secret organization, having for its object the promotion of agricnlture and the protection of the producer. We extend a cordial invitation to all who may feel desirous of nniting with ns, to come out at our next meeting.

Dr. W. H. Pollard has been invited by the Clnb, and will deliver an address before the Clnb at its meeting on May 10th.

Onr place of meeting is at Bridgeport School House. J. C. WILKINS, Secretary.

—*Colusa Sun.*

Sutter County Farmers' Club.

Clnb met, April 26, Vice President Chandler in the chair.

The Committee appointed at last meeting to confer with the Central Pacific Railroad Company asked for further time, as they were as yet unable to meet the Superintendent. Granted.

Mr. Walton offered the following preamble and resolutions:

Whereas, the peace, harmony, and well being of our Republican form of government is constantly harassed by an organized set of nonproducers, who seek to manage the affairs of our State and nation, by placing themselves or those who will do their bidding, in every position of trust and honor for purely selfish motives, and compelling those whom they permit to hold such offices to corrupt themselves, their positions, and taint all with whom they come in contact, in order to support this mass of corruption in our midst, to the injury, disgrace, and disgust of all sober, candid producing classes, who are called upon to furnish the means from which this corrupt class receive their kingly support in the form of high taxes, oppressive freights and increased salaries with very small rewards for honest industry.

And, whereas this organized set are daily becoming bolder, and assnming to themselves new and more corrupt forms of selfishness, almost dishonesty, until they have become an insult to all intelligent and free-thinking people. Therefore, be it

Resolved, That we, as farmers and large representatives of the producing class, will not quietly permit this monster fungus to feed and fatten upon the fruits of onr labor, bnt will make a bold and powerful attempt to free onrselves from his tightening grasp.

Resolved, That while we entertain no hatred for any individual or class of men in our connty, we do know that this vile monster has been and is at work in our midst, seeking to manipulate our primaries, pack our conventions, and by the use of bribes, threats and promises, striving to control our public affairs; and henceforth we will not support even our best men for office if they see fit to use any of these corrupt means in either their nomination or election.

Resolved, that we require all officers within our power to elect to receive their nomination directly and honestly from the people, and follow their legitimate business or occupation until they are required to qualify and discharge the dnties of said office.

Resolved, That in the election of officers in our connty, we entirely ignore politics and seek to place our very best men, without regard to party, in all important and responsible positions, with a determination to check extravagance, curtail the expenses and place the affairs of the county on a cash basis.

Resolved, That we appoint a committee of three to mature and submit plans at onr next meeting by which we may reasonably expect to carry ont the sentiments embodied in these resolutions.

On motion of Mr. Wilson the above resolutions were nnanimously adopted, and the following named members nominated as said committee: B. F. Walton, A. L. Chandler, S. E. Wilson, S. R. Chandler and J. H. Esselstyn. A. S. Chandler and Wilson declined. N. Y. Ream moved that nominations close and the three not declining be declared the committee; Carried.

On motion of Mr. Starr, the Secretary was ordered to draw an order on the Treasurer for the sum of ($50) fifty dollars in favor of the delegates for expenses to the Farmers' Union, Samnel Hutchinson, Lewis White, Wm. Ellington, H. W. Hulbert, J. R. Little, Mrs. J. W. Moore and J. H. Gillenwater paid one dollar each and were declared members of the clnb. On motion adjourned until Saturday, May 10th.—*Sutter Banner.*

AGRICULTURAL NOTES.

ALAMEDA.

Journal, May 3: LETTER FROM LIVERMORE.—The horse disease is increasing very fast, although bnt one fatal case has been reported as yet. A very valuable animal belonging to Mr. Jacob Bracket, was stricken with the disease, and died a few evenings ago. The freight teams hanling between the depot and cement works, have not yet been interrupted, although frequent changes are obliged to be made.

The livery stables have no horses but what are down with it, and the proprietors have consequently been obliged to close their establishments nntil the disease shall abate. The recent showers appear to have superinduced many cases, from the dampness and accompanying colds which followed.

Many of our young sports who had engaged teams ahead for the 1st of May feel particularly down in the mouth and have suddenly awoke to the conclusion that it is mnch more pleasant to read of the ravages in New York and other Eastern cities of the much dread ed epizootic, than to be privileged with an experience at home.

AMADOR.

Ledger, May 3: ANOTHER RAIN.—On Sunday night last this section was visited by about two hours rain, though not heavy enough to do any good. Monday morning drifting clouds hnng around most all day, and in the evening cleared away with rather a cool north wind. The balance of the week has been clear with strong south wind on Wednesday. More rain wonld be very beneficial to the county.

THE VALLEYS.—We learn that the crops in Ione and Jackson valleys are not looking as well as might be expected. There has been but little rain since the first showers of March. The last heavy rains left the gronnd in rather bad condition—packed hard—then the north winds, frosty nights and dry weather snceeding affected the grain very unfavorably. We apprehend that our friends are frightened too soon, for these valleys seldom, if ever, fail. The fruit crop was somewhat injured by frost bnt enongh will be raised to snpply the market. The farmers are, however, much enconraged and look to the fnture with great expectations.

BUTTE.

Enterprise, May 2: THE HALLET FARM.—This splendid farm is about one and a half miles from town. Upon it Mr. Ed. Hallet is making many improvements. He has his farm laid off into convenient fields, with excellent fencing, has a new and fine looking dwelling, and is building a new barn 40x54 feet in dimension. Mr. Hallet is a scientific farmer, as is attested by his finely appearing crops and well regulated grounds. He is cultivating an Eden of flowers, shrubbery, shade and ornamental trees, and within a few years the Hallet premises will present one of the most tasteful and fine appearing homes in our valley.

THE CHICO FLOUR MILL.—This justly celebrated mill is doing an excellent bnsiness. Since the addition of the new house and the introduction of many new improvements the Chico mill ranks among the best of the State. In this particular respect Gen. Bidwell has taken pride and has spared neither expense or skill in making his mill a model one. In the brand of its flour it ranks No. 1. None but the best of wheat is ground to bear the brand mark. Especial attention is paid to custom work and every facility afforded the farmer either to exchange his wheat for flour, or sell it and buy flonr.

EPIZOOTY.—This horse disease is prevailing to a great extent in our county. From every quarter we hear of sick horses. On Monday we observed the sickest one of all we have seen, at P. M. Gwinn's, near Nord. Neck, legs and along the stomach were very mnch swollen, and in every respect the horse was very sick. This disease seems to be abating in Chico, but is spreading all over the county, and our farmers fear that it will not cease its effects until the harvest is upon them, in which case much distress and loss must ensue.

CONTRA COSTA.

Gazette, May 3: WEATHER AND CROPS.—Though the little rain that has fallen has been of no disadvantage, it has not been of any material benefit in improving the crop prospects; but the cool weather of the past two or three weeks has been very favorable and the crops througout our immediate district have thriven under it. We cannot of course expect any good harvest yields, bnt, with ordinary chances, may calcnlate to escape a crop failnre if we do not get an average harvest. In many other portions of the State all hope of a crop has been abandoned,

[Continued on Page 300.]

Practical Poultry Growing.

(Continued from page 264.)

Turkeys.

Now as to the young which come out 27 to 29 days and require nothing but warmth for 2 days. When you remove from the nest feed the old hen cornmeal or other food nntil she is satiated and thns save for the young the hard-boiled eggs chopped fine which you may give them on removing to their coop. Feed soft food and feed often; and give milk for drink, no water, if you have milk enough. Cornmeal grounds coarse (turkeys prefer it mixed with cold liquid and it is equally as good as when cooked) bread crumbs soaked in milk or water, boiled potatoes or any variety of soft food, thick sour milk, smear-kase or cottage cheese, are all good.

Give a small portion of alnm water in their drink, and pepper in their food occasionally. A strong solution of alnm water is three tablespoonfuls to a quart of water. After they are somewhat grown and even after they have shot the red, they sometimes fall sick, standing aronnd with a sleepy look, head drawn into feathers, becoming thinner and weaker day by day. Alum water with treatment already described hy me in these articles (PRESS of Feb. 29) will effect a cure. By proper attention during incubation all lice should have been gotten rid of; bnt, if they make their appearance upon the young, rub the heads of the chicks, (they must be several days old) and the mother, especially on breast and under wings, with sulphur. If it blind the young, wet the eyes next day and open the lids; they will soon get over it.

A decoction of Larkspur seed may be nsed; boil 1 ounce in 2 quarts water for ten minntes. When cold dip in chicks and hen, on a snnny morning, and remove to new location. But as young turkeys are so easily injured by cold and damp, the sulpur is the better remedy. Have your turkeys roam as much as possible, but teach them to come home to roost. A flock of Bronze Turkeys at 6 or 7 months old is indeed a beautiful sight aud worth a great deal of money even if sold to the butcher, though they will hardly reach the market after your neighbors have seen them and are willing to pay two prices for them as breeders.

M. EYRE, JR.

Napa, Cal., April 19th, 1873.

Fattening Fowls.

The old plan of fattening fowls was to put from eight to a dozen in a coop with an open front, feeding them regnlarly three times a day. By employing a railed or barred floor, so that all the dung can fall through, very good results may be obtained in this way, though either of the processes of cramming are now considered quicker and more economical, as compared with what we may call the natural plan.

The coop must be arranged so as to be perfectly dry and free from dranght, and should have a canvas cover to draw down and keep the inmates in darkness. Only fowls which have run together must be penned up in one coop, or their disagreements will prevent any increase of weight.

Before commencing, the coop should be white-washed and the bottom bars cleaned, to prevent annoyance from vermin; and wheu put in, the chickens shonld be left for several hours without any food at all. This is essential and the neglect of it is why many amateurs in their first attempts in fattening their surplus, completely fail; as the birds being naturally fretful at their confinement refuse to eat heartily, and rather pine away; whereas by well fasting them before any food is given, they begin to feed at once.

The quantity must be measured by the appetite, and none on any account left, but clean fresh food given as much as can be eaten without leaving, and water being supplied at the same time. When the feeding is done the canvas covering should be drawn down and the birds left in darkness till an hour before the next meal. The times of feeding must be observed with the greatest punctuality, or the fowls will fret and lose condition.

The best food will be a mixture of barley-meal and oat-meal, or buckwheat-meal with the husk sifted out and mixed with milk. A little suet or lard added is recommended by some good authorities, and increases the fattening, hnt only to the advantage of the basting ladle. The process will be completed in from fifteen to twenty days, and should be carefully watched, as when the proper point is once reached, the chickens if not immediately killed, rapidly decline away.—*Canada Farmer.*

NESTS FOR SITTING HENS.—We do not often see nests for sitting hens properly made. Hay is most commonly nsed, but its seed attracts mice, and it is scratched about by the hen in quest of the seed as food. Besides, it is too dry, and eggs mnst be kept damp in some way, as they lose water steadily by evaporation. We prefer damp earth, hollowed out and covered with finely-cut straw, which will not become tangled in the feet of the hen.

The curve of the nest must be neither too great, nor so small as not to keep the eggs near together. In case trouble may be expected from rats, cover nest, hen and all, every night, with a box having wire-cloth at the ends or sides to let in air.

When convenient, locate the nests where the hen will not be disturbed. Privacy is natural, under the circumstances, and should be permitted and secured, if possible.—*Live Stock Journal.*

The White Leghorn.

(By M. EYRE. Plate furnished by G. B. BAYLEY.)

The Leghorns, often called the poor man's fowls, have proved favorites with every one who has ever bred them, as they are non-sitters; some other breed must be kept for incubation.

Mr. Felch writes of Leghorns: "I have known of a hen laying 159 days in succession, and have the assertion of a friend, where one laid 275 eggs in one year; but the largest number which I know of personally, and which I deem very extraordinary, was 250. An average in my experience has been from 175 to 200 eggs." * * * "I have had White Leghorn pullets lay at 3½ months old, and I have started with the eggs and showed three generations produced in 363 days."



WHITE LEGHORN HEN.

Mr. Seamans says of these fowls: "These are my special favorites, and the favorites of every one who has bred them. I always recommend them as the most profitable egg-producing fowls in existence. I have bred them seven years, and like them better every year. Cockerels crow in six weeks, Pullets lay at four to four and one-half months', free from disease, very hardy, feather early, bear confinement equal to any other breed." The independent, saucy carriage of the cock, his full, round breast, perfectly upright comb, and long wattles, both of which, with the face, are bright red, is fully shown in the engraving. The plumage shonld be pure white throughout;



WHITE LEGHORN COCK.

but the neck, hackle and saddle may be tinged with gold or straw color. The ear-lobes should be pnre, opaque white, rather pendant, thin, fitting close to the head, smooth and free from wrinkles. That of the hen the same. Some contend that tinges of red appear in the lobes as tho fowls grow old, and I have seen fine birds, bred from first-class prize Leghorns, with red in the lobes. Superior in all else, they were preferred by many, though they would not do to exhibit for prizes. The plumage of the hen is also white; legs of both, yellow. The large, single comb, drooping to one side, is shown in the engraving; it is serrated and free from side sprigs or excrescences. It shonld not fall so much as to completely cover the eye, as this oftentimes causes the hen to produce cocks with disqualified lop-over comb.

They and the Houdans are easy fowls to raise; the eggs hatch so well, and the young are so hardy and feather up so quickly that you have, in a few weeks, a flock of miniature fowls, able to care for themselves. One hen, if you will only find something to hatch her eggs, will, from December to February, lay eggs enough to produce fifty or sixty spring chickens, all snfficiently mature by the middle of April to have been sold at $5 to $7 per dozen; while she, the mother, or egg producer at least, with an interval of rest now aud again, continues to lay during spring and summer, fall and winter.

Napa, Cal., May 1, 1873.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co., Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

PREVENTING INCRUSTATION OF BOILERS, TUYERES, ETC.—R. A. Fisher, San Francisco, Cal. Mr. Fisher has discovered a simple, cheap and effective remedy for the incrustation of boilers, tuyeres, etc. His invention has been thoronghly tested and proven, and we donbt not will save many a dollar which is now expended and lost in replacing and repairing leaky tuyeres in our smelting furnaces.

MACHINE FOR CUTTING VENEERS.—E.S. Gilmore, San Francisco, Cal. This invention relates to a device for feeding blocks of wood to the knife of a veneer cutting machine by which the block will be automatically moved up against the knife, after each slice is cut and thus he in position to receive the knife when it again descends. A weighted rod is suspended so that its lower end bears against the block opposite the blade. The weight causes the rod to continually exert a pressure against the block and as each veneer is cut the block is moved forward against a gauge plate on the knife frame, which can be set so as to gange the thickness of the veneer as desired.

FILTER.—Prosper Huerne, S. F., Cal.—This patent is for a filter which is intended more particularly for honse use, in place of the ordinary water cock or faucet. Mr. Hnerne makes a globnlar or oval shell inside of which he secnres a round or oval filtering stone. The stone is somewhat smaller than the interior of the shell so that a space is left entirely aronnd it. The pipe which receives the filtered water passes throngh the case and into the center of the stone while the unfiltered water is delivered by a pipe into the space snrrounding the stone. The pressnre in the filter canses the water to pass throngh the stoue to its center, where it is received by the interior pipe and from which it can be drawn. The large area which Mr. Huerne obtains by using the round or oval stone in the above described manner renders the filter quite effective as the larger the filtering area the greater the quantity of water it is capable of filtering. The filter can be reversed when it is desired to clean it so that the water is delivered to the interior of the stone and filters ontward into the surrounding space, thus effectually cleaning the stone so that it filters freely again.

SAW SWAGE.—Alfred J. Hinds and James S. Howe, of Santa Cruz, Cal. These inventors claim a saw swage made partly of wood and partly of metal. The two snbstances are so combined that while the metal portion serves as a bearing for the point of the tooth which is being swaged the wood rests upon the edge of the saw blade, thus preventing tho saw blade from being marred, as is often the case when a metal swage is used. The form of the swage is also claimed, as it is better adapted to fit between the teeth and plate.

ANTI-FRICTION METAL.—Geo. S. Hunt, Sacramento, Cal. This patent is for the well known I. X. L. anti-friction metal which is so extensively used on this Coast as a bearing for journals.

BALANCED SLIDE VALVE.—Henry Kessler, S. F., Cal. This patent relates to a balance slide valve which is especially adapted to locomotive engines. The valve is so constructed that it bears against the underside of the steam chest and upon the valve seat. An arrangement of springs serves to relieve the pressure of the valve between its bearings so that it will move easily while the pressure of the steam is balanced by the equal area exposed upon all sides.

SEDIMENT COLLECTOR.—Leouard & Hancock, Oroville, Butte county, Cal. Claims a combined sediment collector and blow-off for steam boilers by which the sediment which collects at the bottom of boilers can be removed in an instant by the pressure inside of the boiler. A tube which is provided with nnmerons perforations is placed in the boiler below the water level. A smaller pipe passes throngh a stuffing box in the end of the boiler and into the perforated tnbe. A blow-off cock is provided at the end of this pipe ontside of the boiler. The perforated tube will collect the sediment and the sliding pipe serves to carry off the impurities when the cock is opened, and for this purpose it can be moved along inside of the perforated tnbe. The pressure inside of the boiler serves to drive the sediment out throngh the pipe.

A Californian's Home.

The Napa *Reporter* gives the following description of the home of Nicolas Carriger:

We fonnd Mr. Carriger standing nnder the shade of one of the trees his own hand had planted, and were welcomed hy him with all the natural hospitality of that class, to which the present popnlation of our State owe so much, the pioneer. His house is built in true Southern style, and from its ample porch a view can be had of unsurpassed and almost magic beauty.

At our feet lay old Sonoma, with its side hills dotted here and there with fine mansions, and its red, uptnrned vineyards standing out in bold relief from the green of the everlasting hills. To the right Mount Diablo rears its double head, close to which the town of Vallejo spreads out, looking from here as though it were on a plain, instead of being a perfect jnmble of hills.

Mr. C. has in this one farm of his, in this part of Sonoma Connty, 1,053 acres of which 140 acres are planted in vines, mostly native. He has four cellars, the nnited capacity of which is 40,000 gallons, and they contain some of the most elegant wine and brandy it has been onr fortune to taste. There are also a distillery below the cellars, which has all the modern improvements, and tnrns out yearly 1'000 gallons of brandy.

Beyond the distillery is a large dairy of forty cows, nnder Swiss management. Five hnndred sheep and any amount of stock are kept here, and roam over the beautiful hills at will. The property is blessed with many springs, and an nnrivalled front stream winds through the farm. Fruit of almost every known variety is growing luxuriantly on this farm, portions of which are adapted to the culture of tropical fruits, hy being exempt from frosts, while other portions of the farm are too often visited by this fell destroyer.

We here found budded orange trees, three years old, with as large oranges on them as we ever beheld, proving that bndded trees of this frnit will bear several yesrs in advance of seedlings, as there are seedlings here five and six years old that have not yet borne. The olive and the lemon also flonrishes here, and, in fact, we believe that there are parts of this place where even the banana would be a succes.

Mr. Carriger planted his first vineyard on this property in 1849, moving his family there the same year, in July. That he has spent a fortune on this place is apparent to even the most careless observer, everything living on the property having been fostered by his care and energy. He keeps a constant force of from twelve to fifteen men of all nations, employed, enlarging his force as the work demands. Roses and many other flowers bloom around the honse, so warm and pleasant is its locality during the winter.

A fountain throws five different jets in the front garden, to the left of which is a large spring, from whence it is supplied, and in which are a nnmber of very fine trout. These fish are so tame that they will come to the surface of the water on anyone's approach. No frog ever envelopes this homestead in its fleecy folds, but rolls back from it as though it feared its warmth, contenting itself with snntting out for a time the beauteous landscape spread lovingly at its feet.

Useful Information.

Painted Zinc.—A difficulty is often experienced in causing oil colors to adhere to sheet zinc. Boettger recommends the employment of a mordant, so to speak, of the following composition; one part of chloride of copper, one nitrate of copper and one of salammoniac are to be dissolved in sixty-four parts of water; to which solution is tobe added one part of commercial hydrochloric acid. The sheets of zinc are to be brushed over with this liquid, which gives them a deep black color; in the course of from twelve to twenty-four hours they become dry, and to their now dirty gray surface a coat of any oil color will firmly adhere. Some sheets of zinc prepared in this way aud afterwards painted have been found to entirely withstand all the atmospheric chauges of winter aud summer.

Colored Candies—What They are Made Of. Some months since, a great variety of the candies sold in New York were analyzed by Dr. Endemann, assistant chemist to the health department of that city, and reported iu the *American Chemist*. Reds were either carmine or aniline red (both harmless). Blues were either ultramarine or Prussian blue (also harmless). Yellows were either saffron, chromate of lime, chromate of baryta, chromate of lead, gambogc, or vegetable colors. Of ten samples, five were coloured with chromate of lead, and one with gamboge (both poisonous). Greens were harmless, so far as examined. Starch sugar is a common constituent of some kinds of candy, and starch is often substituted for gum arabic. Iu two cases gypsum was found, three and six per ceut.; no other inorganic adulterations were detected.

Artificial Tortoise Shell.—This substance may be made by meltiug gelatine with various metallic salts. Accordiug to the *Art Journal*, the appearance of tortoise shell may be given to horn by brushing it over with a paste made of two parts of lime, one part of litharge, and a little soda lye, which is allowed to dry. This is the same as the Indiau hair dye, and acts by forming sulphuret of lead with the sulphur contained in the albumen of the horn, producing dark spots, which contrast with the brighter color of the horn. One of the most extensive comb manufactories in the world is in Aberdeen, where there are thirty-six furnaces ou the works for prepariug horns and tortoise shell for the combs, and no less than 120 irou screw presses worked by steam.

The Common House Cricket has the notable peculiarity of possessing both incisive and molar teeth. This enables the insect to destroy roaches much larger than itself, and to eat through very tough substances. Crickets have been known to spoil the soles of boots left within their reach over night, and they will frequently make holes in wet stockings, under like circumstances. The power of chirping belongs only to the males. These are provided with what corresponds to a little drum or tambourine, formed by the horuy or parchmeut-like substance of the short upper wings. These wings have roughened edges, and, being rubbed with a vibratory movement, upon the integument forming the drum, produce the familiar "creek, creek" of the insect.

Venetian Blinds of Colored Glass.—A good idea has been put iuto form in an invention, patented by Mr. Peattie, of Rankeillow street, Edinburgh. It is simply the substitution, with several little improvements, of colored aud ground glass instead of wood, in the ordinary Venetian long and short blinds for windows. The glass is bound with brass to preserve it; and heavy blinds are simply wound up and down with somethiug like a clock-key. The play of colors, it is easy to see, may thus be managed so as to give beautiful effects. Outside at night and inside by day, windows will look as if they were illuminated; and a city seen from the streets of a evening, uuder such circumstances, would have quite a gay and novel effect.

Ancient Relics.—We are told, says the Pioche *Record*, that a number of additional relics of a bygone civilization have been found between here and Bullionville. We have in our possession a piece of tho pottery, which is said to be exactly like similar fragments found in Arizona and New Mexico. It is different from anythiug in that line we ever saw, but looks more like old-fashioued stoneware than anything else we can think of. The coloring must be of metallic origiu, for it is a deep black, and has not faded in the slightest degree through the probable centuries that the fragments have been exposed to storm and sun.

Bronzing and Varnishing Plaster Figures. These should be sized first, and painted with color according to the colored bronze required, as red, white, greeu, yellow, black, etc. Before the colors are thoroughly dry, that is wheu they feel "tacky," the prominent parts should be dabbed with bronze powder and a piece of chamois leather. Varnish afterwards with somo quick drying varnish.

Importing Pulp Instead of Rags for Paper. A paper manufacturer of Lee, Mass., has accepted an engagement to go out to Yokohama, Japan, to build and superintend a paper pulp mill. The pulp will be bleached and shipped in bales to this country.

The Heart and the Brain.—For thousands of years, the hearts of animals had been beating before it was discovered that the purpose of the continuous action of that organ was to bring the supplies required for interstitional repair to the remotest members of the animal body, and at the same time to carry off the waste which had been replaced by fresh material. For thousands of years, human hearts had been beating, and, misled by superficial observation, the heart was supposed to be the seat of thought and passiou, the center of good and evil, devotion and love; and it was even compared by poets to an altar on which flames were burning, etc.

But modern biologists have changed all this. The human heart is no longer the seat of the noble feelings of generosity, charity and of love; all these functions have been transferred to the brain, while the heart has beeu degraded to a simple hydraulic apparatus, in fact, to a machine to all intents equivalent to a pump.

Rolling Mill Notes.—It is estimated that oue-tenth of the cutire population of the United States is dependent for support upon the production and manufacture of iron. The value of the metal annually manufactured is $900,000,000, and 940,000 workmen are employed in the industry, the aggregate of whose wages reaches $600,000,000. There has beeu a vast increase of furnace capacity and additional machinery put in by our rolling mills during the past eight or ten months, and there is every prospect of still further growth.

Tempering Saws.—Take a piece of irou plate sufficieutly large to protect the whole surface of the saw; place it upon some bricks, or place it over a furuace; rub your saw with some clean tallow, and place it upon the plate with a good fire uuder it. It will soon begin to smoke. Take a lighted stick or lath, and apply to the saw; if it takes fire take it off and plunge it into either some ashes or a bed of sawdust, aud let it cool by itself. If not soft enough, proceed as before, but let it burn until it burns out; then take off and plunge as before.

Wax.—According to Waguer, Corsica produces the largest quantity of wax of all the countries of Europe, if not of the world. In ancient times, as well as in medieval timcs, the inhabitants paid their taxes in wax, and supplied 200,000 lbs. annually. Since wax is to honcy, in quantity as one to fifteen, the Corsicaus must have gathered each year 3,000,000 lbs. of honey.

To Mend China, take a thick solution of gum arabic in water, and stir into it plaster of Paris, until the mixture is of a proper consistency. Apply with a brush to the fractured edges of the china, aud stick them together. In three days the articles connot be broken in the same place. The whiteness of the cement reuders it doubly valuable.

Good Health.

The Noise of Children.

There is too much fussing about the noise of children, consequent upon too little knowledge of the requirements of youth in its effervescing state. If growth aud health are considered in their true bearings, children cannot make too much noise. The school-mistress who enforces silence on her pupils is committing, unintentionally, of course, an offenco against reason, worthy only of a convent. Every burst of laughter, every shout, nay, every moderate fit of crying couduces to health, by rapidly filling and emptying the lungs, and chauging the blood more rapidly from black to red—that is, from death to life. Andrew Combe is a great authority in such matters as these, and he tells a story of a great charity school, where the pupils were forced to be so silent that a large portion of them fell ill. Without doubt this is one good reasou why children of delicate constitutions cannot go through our public schools without breaking down. They are kept too still. Often too, teachers are disposed to insist on a posture so erect as to be absolutely injurious; for the body has more parts than one, and while to sit upright is good for the chest, it is, if long continued, an intense strain on the spine. The truth is, children should not be subject to monotony of any kind. They should speak and be silent, sit erect and loll, very much as nature inclines grown people to do. It is time that more attention is paid to the Kiudergarten system in schools, and less to the State's prison one so generally in vogue.—*Ex.*

Dust and Breathing.—It may be interestiug to persous who suffer from the direct effects of the dust, or who are necessarily exposed to the night air in places where there may be malaria, to know that a respirator of clean cotton wool, packed moderately close, sifts the air, and makes it perfectly pure. It is believed that even the penetratiug malaria of vegetable decay is excluded by such a sieve. The construction of the respirator is of no importance; the only thing to secure is that the air passes through the cotton before it is breathed. Such an instrumen!, if it is only a small roll of cotton folded in a handkerchief and held over the nostrils, will afford essential rolief to every one who finds the dust of the streets or railway cars irritating to the throat and lungs.

Natural Duration of Life. — According to Prof. Faraday, the crime of suicide is very common in this age of the world, for he estimates that all who die under one hundred years of age may be charged with self murder; that Providence, having originally intended man to live a century, would allow him to arrive at that advanced period if he did not kill himself by eating uuwholesome food, allowing himself to be arnoyed by trifles; giving liceuse to passions and exposing himself to accidents.

Flourine advanced the theory that the duration of life is measured by the time of growth. When once the bones and epiphysis are uuited the body grows no more, and it is at twenty years this union is effected in mau. The natural termination of life is five removes from the several points. Man, being twenty years in growing lives—or should—five times twenty years; the camel is eight years in growing, and lives five times eight years; the horse is five years in growing, and lives twenty-five years; and so with other animals.

Light.—The more light admitted to apartments, the better for those who occupy them. Light is as necessary to sound health as it is to vegetable life. Exclude it from plants, aud the consequences are disastrous. They cannot be perfected without its villifying influence. It is a fearful mistake to curtain aud blind windows so closely for fear of injuring the furniture, by exposure to the sun's rays; rooms positively gather elements in darkness, which engender disease. Let in the light often, and fresh air too, or suffer the penalty of aches and pains, and long doctor's bills, which might have been avoided.

Breathing Through the Nostrils.—When a respirator is not at hand or cannot be conveniently obtaiued, a great advantage may be gained by breathing through the nostrils. When breathing air that is dusty, or ill-smelling, or otherwise impure, draw the breath slowly through the nostrils. In this way the dust or other impurities are in part arrested in the moist and narrow uasal passages, and are prevented from being thrown upon the lungs. When we breathe through the mouth, they are carried more directly thither. Many would lengthen their lives by resolutely breathing through the nostrils.

Pine Leaves are largely utilized iu Europe. They are converted into a kind of wool or wadding, which is used for upholstery instead of hair. A kind of flanuel is also made from this fibre, which is said to be very superior for many hygienic uses, as for rheumatism and skin disease. Vests, drawers, loose shirts, etc., are also made. In the process of manufacture an etherial oil is also obtained, very useful as a solvent, and as a curative agent. Gas is also made from the refuse and used for lighting the manufactories, or the entire refuse may be pressed into the form of bricks, when it becomes a most excellent substitute for coal.

Floor Wax.—Nessler gives the following formula for the preparation of floor wax: Take 2 ounces of pearl ash, and 10 ounces of wax, and about half a pint of water are heated to boiling in a dish, which is frequently agitated, until a thick fluid mass is formed, from which, upon removal from the fire, no watery liquid separates out. Boiling water is now cautiously added to the mass, until no watery drops are distinguishable. The dish is again set on the fire, but its contents are not allowed to boil, otherwise myricin would separate out, 8 or 9 pints of water being added, little by little, with coustaut stirring. Coloring matter may be added, if desired.

How to Make Cheap Frames.—Cut strips of stiff pasteboard about an inch wide the desired length, clip the ends to a point, and cover with any nice black cloth like broadcloth or fine cassimere, lap the ends at the corners of the frames and fasten with a white or gilt button. Bind your picture and glass together with strips of gummed paper and glue on to the frame. Hang against a white wall. Brouzed paper which can be bought for eight cents a sheet, may be used instead of cloth, in which case a short strip across the corners of the frame is a great addition to its comeliness.

New Anæsthetics.—Two new anæsthetics are announced, each of which is claimed to be safer than the agents usually employed. The first consists of the compound radical ethyl combined with bichloride of methylene. It has been very successfully used in dental and ophthalmic cases. The other anæsthetic is the lightest of all known ethers, its specific gravity being about one-half that of water. At the temperature of the humau body it boils violently. This, too, has been tried, with gratifying results.

Why do Dogs Bark?—Wild dogs, we are told, never bark; they howl. There are numerous troops of wild dogs in South America. Two of these that were carried to England could never bark, but contiuued to utter their habitual howl. But a younger one of the same species learned to bark. Many years ago dogs were left by the Spaniards in the Island of Juan Fernandez, for the purpose of exterminating the goats. Iu a few years all barking had ceased among them. It has been suggested that barking originated in the attempt to imitate the human voice.

Domestic Economy.

The Old-Fashioned Bake-Kettle.

When cooking stoves came in, the bake-kettle, or covered skillet, went out, and with it went a large part of what was good in our American cookery. How many of your readers ever saw a bake-kettle? Probably only those who enjoy the blessing of a wood fire to cook by. Just send an artist down to the back woods of Maine or away "out west," and have a drawing made of this most capital kitchen utensil. "Pioneers will know what I mean without a drawing. [The bake-kettle was in quite common use among the early California Pioneers, especially among those who crossed the Plains; but it seems to have gone quite out of use even here. Ed.—Press.] It is a shallow kettle with a lid, which has a turned up edge, and upon which coals are placed; and the thing to be cooked is "between two fires." Those who are roughing it in log cabins or in camp, know what a useful thing it is. In it the bread is baked, meat roasted or fried, coffee browned, dish-water heated—in short it is one thing handy to have in the house.

I say, much good cooking disappeared with the bake-kettle. It allowed food to be cooked as it seldom is by the stove—long-continued, slow cooking, with all the juices and flavors kept in. Were there ever such chicken and veal pies as our mothers used to make in the bake-kettle? We have now-a-days what is called roast veal—half burned and wholly spoiled in the stove oven. But stuff a knuckle of veal and put it in the bake-kettle and let it "sizzle with fire above and below for three or four hours. It cooks quietly and slowly, all the moisture is retained, and comes out not only a delicious, but a digestible morsel.

The French who, say what you will, bring more skill and common sense to the subject of cookiug than all the rest of the world, *braise* a certain class of dishes, and they have for the purpose a *braisier*, or braising-pan, which is really only the old bake-kettle Frenchified. Ducks, pigeons, and fowls, even if tough, may be admirably cooked in the bake-kettle. Our people have much to learn about the advantages of slow and long continued cooking—a treatment which is hardly practicable in a stove oven, as that dries as well as cooks. The "modern improvements" in the way of stoves aud ranges have resulted iu a deteriorated cookery. Let us go back to the days of our grandmothers so far as to restoro the bake-kettle to the kitchen—or, if it will be fancied better, we will call it a "*braisier*."—*Am. Agriculturist.*

Removing Tar Spots.—The old remedy for removing tar is butter; tar is soluble in fat, and especially in butter; when this is left on the tar spot for some time, both butter and tar are easily washed out by a sponge, with soap and water. It is the same with resinous wagon grease. Recently Dr. Brikerd announced that he had discovered that a creamy mixture of powdered extract of liquorice, with oil of anisseed, will easily dissolve tar, resin, pitch, Venice turpentine, etc. It is afterward washed out with soap and warm water.

Bogus Lard.—An Ohio paper states that some of the articles of Commerce sold as lard is really corn meal larded. The process of manufacture is to melt the lard and then add the meal, stirring the mixture well together. When meal is sixty cents a bushel and lard twelve and a half cents a pound, it is evident that the profits to the manufacturer must be immense. The Yankee wooden nutmegs and basswood hams compare favorably with this specimen of rascality.

An excellent washing fluid may thus be made: Three tablespoonfuls of soda, the same quantity of dissolved camphor (the same as kept for family use), to a quart of soft water; bottle it up and shake it well before using. For a large washing take four tablespoonfuls of the fluid to a pint of soap, make a warm suds, and soak the clothes half an hour; then make another suds, using the same quantity of soap and fluid and boil them just fifteen minutes, then rinse in two waters.

How to Bake an Apple.—To bake an apple perfectly can only be done by giving it timo, keeping it under heat—steady at that—for from four to six hours, depending upon the size and quality of the fruit. It requires this leugth of time to reduce it to a fine pulp and destroy all rawness. The flavor is changed and improved, making, if the Spitzenburg or some othor good fruit, one of the choicest and daintiest of dishos. The point iu baking is to give all the heat that cau be born without bursting the skiu, thus retaining the moisture.

To Make Cocoanut Candy.—Rasp very fino a sound, fresh cocoanut, spread it on a dish and let it dry naturally for three days. Four ounces will be sufficient for a pound of sugar for most tastes, but more can be used at pleasuro. Boil the sugar, aud when it begius to be very thick and white, strew in the nut; stir and mix it well, aud do uot quit it for au iustaut until it is finished. Keep the pan a little above the fire to prevent the nut from burniug.

Removing Iron Rust.—Put one-half teaspoonful oxalic acid to one-half teacup of water, aud apply it to iron rust, fruit and other staius. Exposure to the sun will remove them.

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SAN FRANCISCO:

Saturday, May 10, 1873.

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RIPE CHERRIES.—We are now—May 5th —in receipt of samples of delicious cherries, with the request—if noticed at all—not to give the name of the donor unless the cherries are the first seen in S. F. this spring. Gushing thanks to the giver; but ripe cherries were selling in this city on Wednesday April 30th at $1.25 a pound. They were from the farmers cherry orchards of J. Bassford, six miles from Vacaville, Solano county, in the district which we made note of in RURAL of May 3, as a Semi-Tropical Land.

OLYMPIA.—We have inadvertently omitted to acknowledge the receipt of a box of seventy-five plants of the *Rhododendron Maximum* native flowering shrubs, from our friend Smith of Olympia, W. T. He can be assured they were distributed as suggested and that he has our thanks.

SENDING EAST.—Now that our eastern florists are creeping out from under their snowy covering, we observe that Miller and Stevens, seedsmen, 27 Post street, S. F., are sending forward California flowering bulbs and seeds; among them we noticed a package for Henry Dreer, Philadelphia, containing California and Japanese lilies of several varieties.

GREEN GOOSEBERRIES.—On Monday, May 5th, we noticed the first full grown green gooseberries and snap beans; cucumbers have been on our market for the month past. The gooseberries for pies and the others as general accompaniments of our dinner, with cherries and strawberries in the greatest abundance as a part of our dessert, we manage to live.

New and Valuable Pears and Apples Produced from Seeds.

The account which President Barry of the New York Horticultural Society has made as the result of an experiment in growing seedling pears in California leads us to make a few remarks on fruits originated from planting their seeds. The seedlings Mr. Barry speaks of were raised by Bernard S. Fox, of San José. Although resembling some of the best known and most highly esteemed pears, they were found to be distinct and new sorts. These fruits all originated from the seed of the Belle Lucrative, sown in 1863, and had fruited in the rows where they had first grown. Mr. Barry states that "many of these varieties are fully equal in size and beauty to our best, and many hold the advantage of being quite late." It is considered by good judges one of the most remarkable instances of success in raising seedling pears on record. Much of the success, Mr. Barry thinks, is due to the peculiar climate of California, and he observes that cultivators there may now cease looking to the old world for new varieties of apples and pears, etc., but their attention should be turned to this coast.

This is great encouragement for our fruit growers to direct their attention here more than they have as yet done to the obtaining many new kinds of fruits, by sowing their seeds. It has been generally thought that our plants of culture have always showed a tendency to run back toward the original or wild type, when they were grown from seeds. We admit this tendency to exist in many cases, but at the same time we are strongly of opinion, and what experience we have had in this matter, confirms it, that when a break is once made from the normal type, the tendency to improve may become indisputably established. Van Mons, the most successful raiser of many of our best pears, asserts that the seeds from old trees would be still more apt to run back to the original type, and that the older the tree, the nearer will the seedlings raised from it approach the wild state, though he says they will not quite reach it. But most persons agree, as the effect of their practical tests, that the seeds of a young tree, having itself the tendency to melioration, are more likely to produce improved sorts.

Van Mons began with seeds from a young seedling tree, not grafted upon another stock; he cared nothing for the quality of the fruit, but preferred that the variety was showing a tendency to improvement or variation. These were sowed, and from the plants produced, he selected such as appeared to him to have evidence of improvement, (it is supposed by their less wild appearance), and transplanted them to stations where they could develop themselves; when they fruited, even if indifferent, if they continued to give evidence of variation, the first seeds were saved and planted and treated in the same way. These came earlier into fruit than the first, and showed a greater promise. Successive generations were thus produced to the fourth and fifth, each came into bearing earlier than its predecessor, and produced a greater number of new varieties, and he says that in the fifth generation they were nearly all of great excellence.

Starting upon the theory that we must subdue the vigor of the wilding to produce the best fruits, he cut off the tap roots when transplanting, and shortened the leaders, and crowded the plants in the orchard or fruiting grounds, so as to stand but a few feet apart. He urged the "regenerating in a direct line of descent as rapidly as possible an improving variety, taking care that there be no interval between the generations. To sow, resow, to sow again, to sow perpetually, in short to do nothing but sow is the practice to be pursued, and which cannot be departed from; and, in short, this is the whole secret of the art I have employed."

This long and tedious course needs more patience and perseverance than, we think, our fast age cares to pursue. But whether followed or not, or whether true or not in practice, one thing is certain, and our late success in California with pears related by Mr. Barry confirm it, that some of our choice and fine varieties have been produced by selecting the seeds of good sorts, and without regarding the age of the trees from which the fruit was taken; thus the Lawrence Favorite and the Columbia pluma were raised from the seeds of the Green Gage, one of the oldest European varieties.

There is one curious and interesting fact relating to these remarkable seedlings, spoken of by Mr. Barry, namely, that all of them were from the seed of the Belle Lucrative, and none like that variety, but like all the others growing around, showing that the mother plant did not affect the character of the varieties. This might not have been the case had some other varieties supplied the seed. This looks very much as though our peculiar climate indeed had very much to do with it. The early age at which trees begin to bear here, even in the seedling bed, seems very strange to our Eastern friends, if not to us. Mr. Fox states that he could have sent East if he had wished it 80 varieties the past season.

Let our cultivators carry out still further these encouraging experiments. We seem to have a wide and promising field for them in California. At least they may prove very interesting and useful. Mr. Fox in a very short space of time has accomplished wonders as compared with European achievements in this line, and which in that quarter of the globe took very many years to bring about.

The Dailies on Farming Interests.

WHAT THE "CALL" SAYS: The organization of the farmers in this State promises the best results. It will not be long before the farmers will have a voice in the Legislature—in making our laws, etc. When this occurs, much of the profligacy which has weighed so heavily upon the people will be at an end. Send farmers to the Legislature from the agricultural counties, and taxation will be reduced fully fifty per cent. We say, by all means encourage the farmers of the State in the work which they have undertaken, for it will not only result in giving reasonable transportation rates on our railroads, but it will in numerous ways assist in bring prosperity to different departments of business.

THE HAYNIE RESOLUTION.—This resolution now causing such a hubbub among polititions, can be found in the proceedings of the Farmers' Club of Sacramento in this week's RURAL; but as the *Bulletin* makes particular reference to it, in an editorial this week, we repeat the resolution here:

Resolved, That the club request the Executive Committee of the State Farmers' Union to call a Convention of delegates from the different clubs and farming districts throughout the State, at an early day, to consider the propriety and necessity of making independent nominations (politically) for members of the Senate and Assembly, in the interest of reform, agriculture and all other industrial interests of the State.

In regard to which, the *Bulletin* remarks: The motives that prompted the above resolution are excellent, and it is gratifying to see so large and intelligent a class as the farmers awaking to the necessity of political reform. We question, however, the policy of any single class in the State, which aims at this object, seeking to accomplish it by separate organization. Miners, mechanics and traders, professional men and laborers, are as much interested in this matter as the farmers, and any movement to be effective must be general and comprehensive.

The farmers, as such, would find that an organization of their clubs into a political body, and the nomination thereby of independent legislative tickets, would be more apt to insure the success than the defeat of partisan and monopoly schemers. If, however, they can use their influence concertedly to effect the nomination, by whatever party agency, in their respective districts, of men of independence and honesty, they may be sure that, whatever the partizan complexion of the Legislature, it will be faithful to its duty and to the solid interests of the State. What is desired is not class legislation, but upright legislation.

Goat Breeding.

Messrs. Landrum & Rodgers who are largely interested in the Guadalupe Island Company will soon send 1,200 ewe goats and 150 full blood and thoroughbred Angora bucks. They have now over $20,000 worth of pure bred goats as a home band at Peach Tree Valley, Monterey county; and have bought this week in addition to the above, 1,100 goats of low-grade to breed up from.

They have bred an increase of 1,350 kids the present season. The island of Guadalupe is 200 miles south, half west from San Diego and 90 miles from the main land. It is 26 miles long with an average width of 10 miles, giving an area of 166,400 acres; 3,840 acres are a dense forest of white cedar, and there are also 700 acres of pine forest, valuable for ship spars, wharf and bridge timber and cord wood. The island is a valuable property upon which the company now have over 20,000 common goats besides the the grades and pure bloods.

Mr. J. M. Rodgers, one of the Directors of the Island Company is now on a visit east; his post office address being Liberty Pole, Vernon County, Wisconsin.

Rabbit Breeding.

A correspondent says: "I would like to see an article in the RURAL on the culture and profit of the rabbit. Also what advantages the Madagascar Lop Ears, have over the common varieties."

In England, but particularly in Belgium and Holland, particular attention is given to the breeding of rabbits as an article of cheap meat food, and immense numbers are annually bred for that purpose. There are in this as in the growing of most domestic animals, certain fancy breeders who breed for the sake of producing new and strange types of the animal, as the fan-tailed and other pigeons, lop-eared rabbits, etc.

There is no advantage in the lop-ears, except the higher price they bring as fancy animals. The wild rabbit, and the hare are both so plentiful and cheap in California as to make it doubtful whether rabbit breeding as market food, would be attended with profit, although the increase from healthy breeding rabbits is perfectly immense.

One fact is noted as regards the flavor of the wild and tame animal, that while domestication increased the size of the animal and the disposition to sport, both in color and form, the quality of the meat is not considered as good as the wild. Hence preference is generally given to the meat of the wild over the pampered animal; though doubtless the food has much to do in determining the quality of the meat.

In regard to the enormous fecundity of the tame rabbit, the *Aigle du Midi* states that: "A farmer named Pinel, of Revel, in the department of the Haute-Garonne, France, has lately commenced breeding rabbits on an extensive scale for consumption, and that he expects the operation to be successful in a commercial point of view. In the space of five months, from May last, he, with fifty female and five male rabbits, obtained 1,300 young, and he now intends to have 200 females. By allowing these latter to produce only every two months, instead of every month, as they can do, he calculates that he can procure 500 rabbits a month, or 6,000 a year.

He has had constructed a large shed, 30 yards long by 20 wide and 40 feet high, and in it are 140 compartments, of which 10 are set apart for young rabbits separated from their dams, 14 for the adults, 12 for the males, and the rest for the doe rabbits and other purposes. Pinel makes this calculation: Out of 270 rabbits born every month, the average number of deaths is 12, so that there remain for sale 258 which can be disposed of for 12 cents each, making $56.76, or $681.12 a year.

This sum is increased to $931 by the sale of the manure. The expense of producing 258 rabbits is estimated at $274, so that a clear profit remains of $657. As rabbits can be fed in great part on the refuse of the farm-house and farm-yard, it is thought that they might in many localities be bred to advantage."

Following Nature in Agriculture.

How often is poor Dame Nature dragged in by the ears to stand godmother to all the bantlings that the busy brains of our numerous horticultural writers bring forth. Let it only be proved, or even supposed, that this or that process is founded upon a natural law, or upon what he conceives to be such, and the writer imagines his argument to be irrefutable.

For the benefit of those who would do things according to Nature, we remark, that Nature nowhere trims back the grape vine annually to four or five buds; but the successful grape-grower does it. Nature seldom cuts back or heads in the peach or apricot; but many of our best fruit culturists do it. Nature never blanches the celery plant; but our gardeners do it. Nature sows the most of her seeds directly upon the surface of the soil; farmers and gardeners generally give to seeds a necessary covering. Nature seldom transplants a tree or mutilates its roots, or propagates by grafting upon sections of limbs or roots; nurserymen do it.

We might go on *ad infinitum* in showing up the absurdity of making our horticultural practices conform to the rule of nature. In some things it may be very well to *follow Nature*, if that term must be used, whilst in others, it will be found much better to *lead Nature*, or do what experience has shown to be the best practice, whether nature does it that way or not.

THE HORTICULTURAL FESTIVAL. — The Bay District Horticultural Society opens its Spring Exhibition at their hall on Stockton street, on this, our day of writing, Thursday May 8th. The public are promised therein one of the finest exhibitions of floral beauty that has ever graced this city, renowned as it has been for its floral displays. This afternoon Dr. E. S. Carr, Professor of Agriculture of the University of California, is to deliver the opening address, and as he is strong on flowers and horticulture we are expecting a rich treat, of which our readers will hear in our next.

HORTICULTURE.

Edible Cacti.

GIANT CACTUS, *(Cereus giganteus.)*—This noted plant of the barren hills of Arizona is commonly called monumental or giant cactus. It grows twenty-five or fifty feet high, and four and a half in diameter, is deeply ribbed, and covered with long black spines. Its fruit, Fig. 1, is pear-shaped, of a greenish-yellow color, with a few small spines scattered over the snrface, which fall off as the fruit becomes thoroughly ripe. The fruit is borne npon the highest part of the plant, and is usually gathered by means of long, hooked sticks.

The interior of the fruit is of a beautiful red color, and looks tempting; the rind is pulpy, fibrous, juicy and sweet; the pulp is very palatable, and is fu ll of small black seeds, which are also eaten, reminding one of figs, the only difference being that it has more moisture. The seeds are indigestible, nnless well chewed. The Indians of Arizona, Sonora and the southern portion of California consider this one of their greatest luxuries, and as long as the fruit is obtainable care for nothing else.

To dry this fruit as a preserve, the seedy pnlp is placed between soft inner corn husks, the ends of which are tied, and is then dried in the sun, for winter use or trade. It is also put into earthen pots when fresh, secured from the air, and sold in the settlements. It retains its sweetness for a long time. A clear, light-brown syrup is expressed from the pulp, and sold in one gallon jugs, (also made by the Indians,) for $2 to $5. The Papajo Indians are the largest producers of this syrup. The Pimo Indians, of the Gila river, annually prepare a wine from this fruit, called by the Mexicans tiswein, by taking the fresh pulp or the syrup and mixing with it a certain quantity of water in earthen vessels, and exposing it to the sun for some time to ferment, after which it is fit for drinking.

It is highly intoxicating, with the taste and smell of sour beer; but some time elapses before its stimulating effeots are felt. When the wine is ready for use, the Indians celebrate an annual drinking festival. These gatherings are anxiously antioipated for months, and expeditions which have been planned against the Apaches, while under the influence of drink, are then carried into execution. It is of a olear, amber color, and in every respect superior to much of the wine on sale.

Thuber's Cactus.

(Cereus Thurberi.)—This is commonly called pitahaya by the Mexicans. It grows in the Papajo Indian country, on the borders of Arizona and Sonora, eighteen to twenty feet high, and four to six inches in diameter, and bears two crops of fruit per year. The fruit is the size and shape of an egg, and is thickly covered with long, blaok spines. As it ripens it becomes tinged with red, the spines fall off, the fruit splits open, and exposes a rich red, jnicy pulp, with small black seeds. This is deci tedly better frnit than that of the *Cereus giganteus*, but it is used in every respect for the same domestic purposes.

The Papajo Indians, in transporting earthen vessels filled with syrup or preserves made of the fruit to market, cover their jars with a thick coating of mud, which renders them less liable to break in handling, and at the same time keeps the contents cool, and prevents evaporation, the crockery used being very porous. The fruit is eaten in enormous quantities, and, being very nutritious, the consumers quickly acquire an extraordinary increase of bulk. In making wine or syrup the seeds are easily separated from the pulp by the use of water. They are carefully collected, dried, parched, and pulverized, after which process they are digestible and nutritious.

THE PERSIMMON, *(Diospyros Virginiana.)*—This fruit grows abundantly in the Indian Territory and Arkansas. The Indians consume large quantities of it when ripe. It is prepared for future use after the manner of making apple-butter.

Echinocactus Wislizeni, Fig. 2.

This singular species of cactus is commonly called by the Spaniards biznacha, and being twenty inches or more in diameter, a section of the stem is often employed as a cooking vessel. The seeds are small and black, but when parched and pulverized, make good grnel and even bread. The pnlp of the fruit is rather sour, and not mnch eaten. Travelers in passing the cactus wastes often resort to this plant to quench their thirst, its interior containing a soft white watery snbstance, of slightly acid taste, which is rather pleasant when chewed.

It is a common sight to see on each side of the road these plants with a large perforation made by the thirsty traveler. An Indian, when traveling and wishing to make a meal, selects a large plant, three feet or more long and two in diameter, cuts it down and hollows it out so as to form a trough; into this he throws the soft portions of the pulpy substance which surrounds the central woody axis, and adds meat, roots, seeds, meal, fruits or any edible thing on hand; water is added, and the whole mixed together; stones are then highly heated and dropped into the mixture, and, as they cool, are taken out, licked clean, reheated, and returned to the cooking vessel, until the mixture is thoroughly boiled. This is a favorite dish with the Yabapais and Apaches of Arizona.

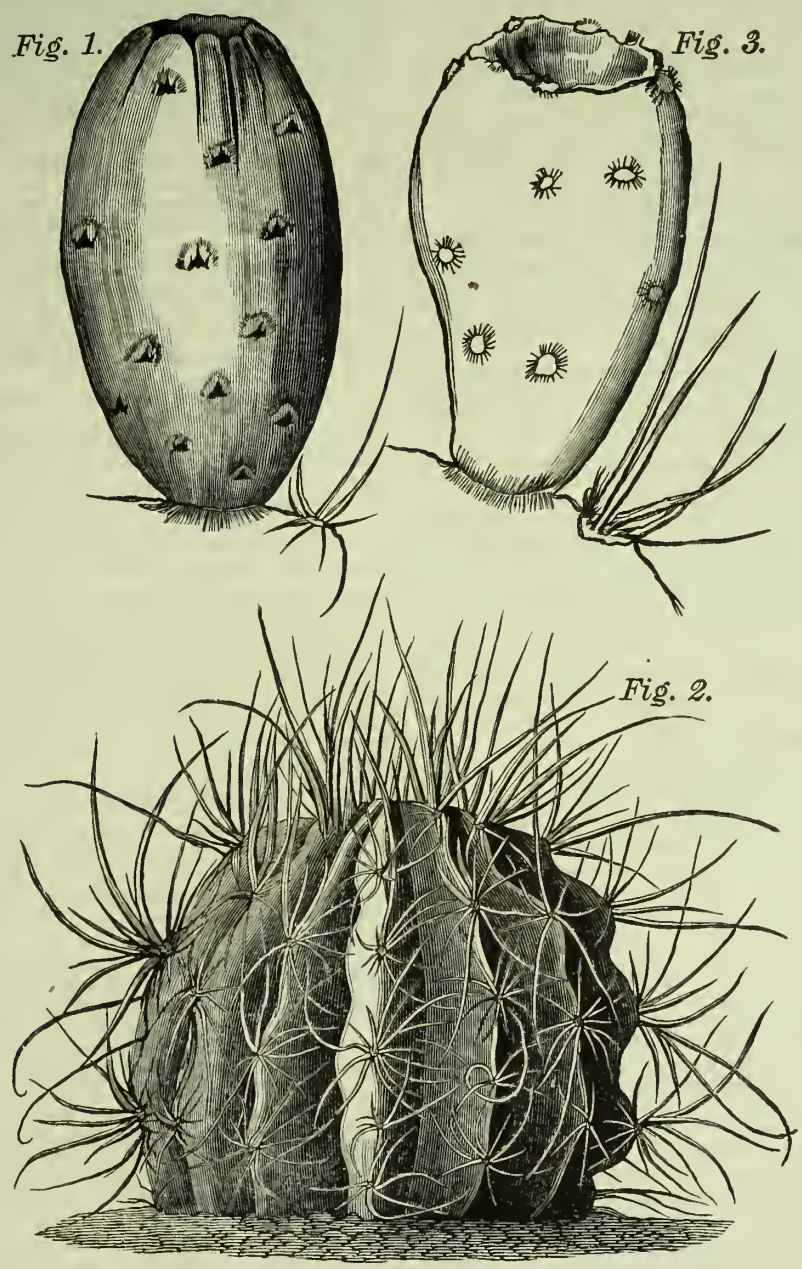
The Papajo Indians pare off the rind and thorns of large plants of this species of cactus, letting it remain several days to bleed, when the pulp is pared down to the woody axis, cut up into suitable pieces, and boiled in syrup of the *Cereus giganteus* or *Cereus Thurberi*. If a kind of sugar which is made by the Mexicans is attainable, it is employed instead of the syrup, thus forming a good preserve. These pieces, when taken out of the liquid and dried, are as good as candied oitron, which they much resemble in taste and substance.

MULBERRY (*Morus rubra.*)—This tree grows abundantly in Northern Missouri and along the rivers of Kansas, the fruit being large, sweet, and of a black color. The Indians will travel many miles in search of it. It is found also in the Indian Territory.

Prickly Pear,

(*Opuntia Engelmanni, O. vulgaris, O. Camanchica, O. Rafinesquii, O. occidentalis*, Fig. 3.)—The fruit of these species of cactns is much eaten by all the Indians of New Mexico, Arizona, California, and Utah, under the common Spanish name of *lunas*, great quantities being dried for use in the winter. These plants grow in arid desert localities which produce nothing better; they are large and of a bright red to purple oolor; of a rather pleasant, sweet, somewhat acid taste, and have thin skins and rather large seeds, which are discarded. The skin is studded with bunches of very fine downy spines, which the Indians brush off with a bunch of grass. The Apaches use wooden tongs to gather the fruit, to prevent being scratched by these spines or thorns of the plant.

The Pawnees and Papajoes dry the unripe fruit of the *Opuntia* for future use, to be cooked with meat and other substances. The fresh unripe fruit is often boiled in water from ten to twelve hours, until soft, when it becomes like apple-sauce; then being allowed to ferment a little, it becomes stimulating and nutritious. Some Indians roast the leaves of the *Opuntia* in hot ashes, and, when cooked, the outer skin, with the thorns, is easily removed, leaving a slimy, sweet, succulent substance, which is eaten.



FRUITS OF THE CACTUS.

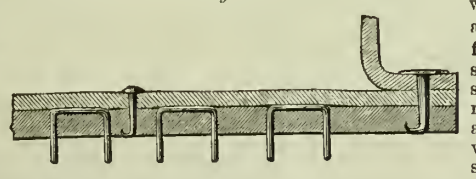


Fig. I.

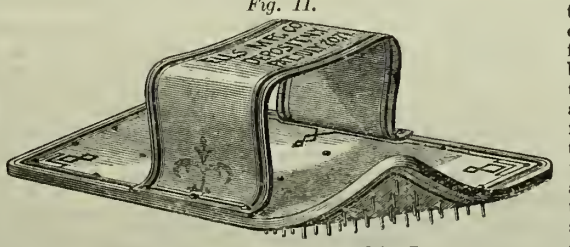


Fig. II.

FLEXIBLE CURRY COMB.

The Finest Fruit in the World.

The durion, a fruit about which very little is known in England, but which is reckoned by natives and Europeans in the Malay Archipelago to be the finest fruit in the world, grows in great abundance in Java and Borneo. It grows on a large and lofty forest tree, somewhat resembling an elm in its general character, but with a more smooth and scaly bark. The fruit is round or slightly oval, about the size of a large cocoanut, of a green color, and covered all over with short stout spines, the bases of which touch each other, and are consequently somewhat hexagonal, while the points are very strong and sharp. It is so completely armed that if the stalk is broken off it is a difficult matter to lift one from the ground. The outer rind is so thick and tough, that from whatever hight it may fall it is never broken. From the base to the appex five very faint lines may be traced, over which the spines arch a little; these are the sutures of the carpels, and show where the fruit may be divided with a heavy knife, and a strong hand. The five cells are satiny white within, and are each filled with an oval mass of cream-colored pulp, imbedded in which are two or three seeds about the size of chestnuts. This pulp is the eatable part, and its consistence and flavor indescribable.

A rich butter like custard highly flavored with almonds gives the best general idea of it, but intermingled with it comes wafts of flavor that call to mind cream-cheese, onion sauce. brown sherry, and other incongruities. Then there is a rich glutinous smoothness in the pulp which nothing else possesses, but which adds to its delicacy. It is neither acid, nor sweet, nor juicy, yet one feels the want of none of these qualities, for it is perfect as it is. It produces no nausea or other bad effect, and the more you eat of it the less you feel inclined to stop. In fact, to eat durions is a new sensation, worth a voyage to the East to experience.—*The Garden, England.*

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 6th, 1873.

FOR WEEK ENDING APRIL 22d 1873.*

DREDGER.—Ephriam B. Bishop, S. F., Cal.

HORSE POWER.—Addison G. Waterhouse, assignor of 6-10ths interest to J. S. and M. Nichols, S. F., Cal.

BAND SAWING MACHINE.—Olpha Bonney, S. F., Cal.

SCRUBBING MACHINE.—Simeon H. Bush, Washington Ter.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Flexible Curry Comb.

We herewith give illustrations of a new, patent flexible curry comb, that seems to possess peculiar merit, in its complete adaptability to every part of the animal upon which it is used. All who have the grooming of horses are aware how sensitive the animal becomes, when the harsh and unyielding teeth of the ordinary comb is made to pass roughly over the points of the bones of the leg and other parts of the body barely skin covered.

The new flexible comb entirely remedies this fault in the old fashioned comb, besides being one that can be easily cleaned, since by doubling it up in the hand, the mat of hair collected is loosened and easily removed. But there is another advantage it possesscs and one which should commend it particularly to the notice of manufacturers; it is a comb that can be made and sold so low as to enable any farmer in the United States to have one, and still pay a handsome profit to the manufacturer.

A sample can be seen at Wiester & Co's., 17 New Montgomery Street, who are agents for the sale of rights to the Pacific Coast.

MUCH IN FEW WORDS.—J. Larcombe of Reno, says: check for $5 which place to my account. In my position as farmer, orchardist and trader in general merchandise at Reno, Nevada, and being an old residenter of ten years' standing right here, and an old '49er—have considerable acquaintance on both sides of the Sierras. I am doing all I can to increase your subscription list; becanse I appreciate the RURAL, and wish to see it extensively circulated. Please send RURAL PRESS for one year to R. A. Frazier.

MONTANA AGRICULTURAL FAIR.—We have received a pamphlet containing the premium list, rules and regulations of the Montana Agricultural, Mineral and Mechanical Association to be held at Helena, Montana, commencing September 29th, 1873, and to continue for six days. This new Territory and only its fourth annual Fair, and an offer is made of 350 premiums, amounting to $3,964.00; well done, Montana!

SHIPMENT OF CALIFORNIA COTTON.—The first shipment of note of California cotton for the Liverpool market was made a few days ago. The ship *Ontario* for Liverpool, now completing her cargo at Oakland, has on board 100 bales of California cotton of most excellent quality. It is pronounced by experts as very superior. It came from Visalia and vicinity and will unquestionably prove profitable to the producer.—*City Paper.*

ADVERTISEMENTS.—We have received from Jersy City, N. J., a medical advertisement of a character that we decline publishing in the RURAL PRESS. Agents might save themselves inconvenience by observing the kinds of advertising alone admissible to our colums.

RAILROAD BRIDGE BURNED.—The railroad bridge crossing Dry Creek, 16 miles east of Sacramento was entirely destroyed by fire on the 6th.



The Atlantic.

Ay, build her long and narrow and deep;
She shall cut the sea with a scimetar's sweep,
Whatever betides and whoever may weep!

Bring out the red wine! Lift the glass to the lip!
With the roar of great guns, and a "Hip! hip
Hurrah!" for the craft we will christen the ship!

Dash a draught on the bow! Ah the spar of white wood,
Drips into the sea till it colors the flood
With the very own double and symbol of blood!

Now out with the name of the monarch gigantic
That shall queen it so grandly when surges are frantic—
Child of fire and of iron, God save the Atlantic!

All freighted with power below and above,
The heart of a fiend and the wing of a dove—
Tumble in the brave cargo of life and of love!

Good for a thousand souls! Hustle them in!
Your mother and mine shall the census begin;
Then tell off the children too little to sin!

With furnace of fire and forest of mast,
She can conquer the calm and rally the blast;
But fuel is costly! Coal-heavers avast!

Ah, those ebony heaps that cumber the hold
Can never be reckoned in silver and gold—
Ten lives to the ton, and an anguish untold!

Alas for the lack of a handful of coals;
Alas for the ship that is haunted with souls
Alas for the bell that eternally tolls!

All aboard, my fine fellows! "Up anchor!" the word—
Ah, never again shall that order be heard,
For two worlds will be mourning ye gone to a third!

To the trumpet of March wild gallops the sea;
The white-crested troopers are under the lee—
Old World and New World and Soul-World are three.

Great garments of rain wrap the desolate night;
Sweet Heaven disastered is lost to the sight;
"Atlantic" crash on in the pride of thy might,
With thy look-out's dim cry, "One o'clock and all right!"

Ho, down with the hatches! The Seas come abroad!
All together they come, like a passionate word—
Like pirates that put every soul to the sword!

Good night, proud "Atlantic!" One tick of the clock,
And a staggering craunch and a shivering shock—
'Tis the flint and the steel! 'Tis the ship and the rock!

Deathless sparks are struck out from the bosoms of girls,
From the stout heart of manhood in scintillant whirls,
Like the stars of the flag when the banner unfurls!

What hundreds went up unto God in their sleep!
What hundreds in agony baffled the deep—
Nobody to pray and nobody to weep!

Alas for the flag of the single "White Star,"
With light pale and cold as the woman's hands are
Who froze in her shroud, flashed her jewels afar,
Lost her hold on the world and then clutched at a spar!

God of mercy and grace! How the bubbles come up
With souls from the revel, who stayed not to sup;
Death drank the last toast, and then shattered the cup!

Who crushed those poor hearts that wild terrors environ?—
Atlantic of water? Atlantic of iron?
The den where they bearded the granite old lion?
The God of the sparrows? A breath from Mount Zion?

Bring the World into court! Bid the verdict be given!
"To this true word we render, resistlessly driven,
And so say we all—Not Guilty, 'fore Heaven!"

Poor handful of carbon! Call humanity's roll
For the fellow who thought, "Ah, how costly is coal!"
He loses who bids *any* price for his soul!

Made an Idiot "Just For Fun."

A writer in the *Methodist* adds the following to the long account of fatal practical jokes. But it seems as hard to stop them as to stop carelessness in handling kerosene:

It was rather a favorite excuse with Willie Goodwin, whenever he was deep in mischief, or had to plead guilty when accused of some boyish scrape, that it was done just for fun.

Many a time he resolved to try to be more orderly, and let boyish pranks alone, but the next prospect of fun would banish all his good resolutions, until the penalty recalled them again. He was nearly fifteen when the tragedy I am about to tell you sobered him for life. He was a middle-aged man when he told me the story, but even then he could not speak without emotion of his last piece of "fun."

"We had been out for a walk," he told me, "Frankie Ford, Tom Lee and I, were coming home at twilight, when we met Sammy Willetts, who was rather a favorite butt for teasing with all the boys. He was a very timid, rather sickly boy, of about fourteen, peevish and easily irritated, and the rougher, stronger boys said, a coward. As soon as we saw him coming, the spirit of mischief seemed to possess us all, and each boy planned how to tease the poor, timid boy.

"Let's hide, and jump at him," one suggested.

"Let's tell him his house is on fire, and see him run,' cried another.

"I'll tell you what we'll do," I said. "We'll coax him down to Rutland's barn for a game of romps, and shut him up!"

"Rutland's barn was a large barn standing alone at some distance from any other building. The farm-house to which it had belonged had been destroyed by fire, and the great barn had been left standing when Rutland deserted the place and went West. It was a favorite play-room for all the village boys, who spent long Saturday afternoons in it, making it a gymnasium or recitation-hall, as occasion required.

"Although it was twilight, the summer evenings were long, and Sammy was not surprised to be told that they were going to Rutland's barn for an hour's play before bedtime. He was quite willing to join us, and we were soon in the old barn, making it ring with our shouts and laughter.

"The hour passed rapidly, and it was getting quite dark, when we sent Sammy into the hayloft on some errand, ran out ourselves, and drew the big doors after us. It was hard work to fasten them with the rusty iron latch, but we accomplished this, too, and then ran off.

"Just as we were at the edge of the field, we heard one fearful scream, but we only hurried on, laughing at the thought of Sammy's discomfiture.

"I must say, in our defence, that passing one night in the old barn would have been no great misfortune to any of us. We were all hardy country boys, full of life and health, free from superstition or morbid fears, and we could none of us realize what the dark loneliness was to a timid, sickly boy with rather a weak mind.

"It must have been after midnight, when we were roused at home by a violent knocking at the door. My father spoke from the window, asking what was wanted, and I heard our neighbor, Mr. Willett's asking anxiously:

"Is Sammy here?"

"No. Is he not at home?"

"He has not been home since sunset. I am very much worried; he is not well."

"I'll ask Willie if he has seen him."

"In another moment father was by my bed, and I told him where they would find Sammy. Never shall I forget the father's cry of horror.

"It will kill him! My poor, timid boy. He is afraid of the dark, and the doctor has told us we must humor him, because he is not strong enough to bear fright. Will you come with me, Mr. Goodwin?"

"I was dressing as rapidly as I could, and was by my father's side when he lighted a lantern, and joined Mr. Willetts.

"Let me go!" I begged. "I never meant to hurt him. I wouldn't mind staying there all night a bit, and I did not think it would really hurt him. O, sir, do you really think it will kill him? It was all a joke, just for fun."

"God forgive you, boy," he answered me in a choked voice. "I am afraid it will be dear fun for us all. Sammy, my poor boy! Who will tell his mother, if harm has come to him? Our only one—our poor sickly boy!"

"So he lamented as we hurried across the fields, every word increasing my terror and remorse. It was my proposal, and I felt myself the only guilty one, though the others had helped me to carry out the cruel joke, that seemed anything but fun now. We reached the barn at last, and undid the heavy fastenings of the door. Mr. Willetts called his boy by name every moment, but no answer came. It seemed to me hours before the heavy doors swung back. One of them would not open wide, and looking for the cause, we found poor Sammy, white and senseless, lying on the floor behind it. His father lifted him.

"He is not dead," he said. "Can we get water?"

"I hurried to the well and brought water, but the boy was too far gone for that. O, the long distance it seemed to Mr. Willetts' and beyond that to the doctor's where I ran at once. Never shall I forget the face of Sammy's mother, as she took the boy's face in her hands, and looked into it. It was so white and still, I dared scarcely believed he really lived, as I hurried to the doctor's. He did live, recovering his health after a long dangerous illness; but his mind was gone forever. Some fright in those lonely hours of darkness gave a shock to the weak mind that was never cured, and he lived only to be an idiot.

"It is some years now, since we laid him in his quiet grave, the victim of a boyish prank. I tell you it was the last piece of mischief I ever did, just for fun."

A Physician being asked by a patient if he thought a little spirits now and then would hurt him much, he replied. "I do not know that a little occasionally would hurt you much; but if you don't take any, it won't hurt you at all."

Sugar-Coated Poison.

We see children's books almost everyday which are utterly unfit for any child's perusal. We have seen things which were worse than the small-pox in many a nursery book-case, and once we found a Sunday-school library into which a very pestilence had crept. "I wish I was a' Injun, or a pirate, or something," said a bright boy to us one day, and we questioned him to learn whence he had derived his impressions of savage and lawless life; and as we questioned him, we saw upon his knee a volume from the pen of the most prolific writers of pestilent literature for boys, a writer whose alliterative nom de plume is known wherever there are books to be read and boys to read them. That book came from the Sunday-school library, and the investigation which followed revealed a truly startling state of facts. Three out of every five of the books which those boys and girls had been reading were positively bad, and a good many of the others negatively so, though they were all gotten up in good style, and all looked as innocent as skim milk.

In view of the fact that there is nothing which does so much to shape the character of a child as its reading does, it seems incredible that any parent should give books to his children before ascertaining the precise character of their contents. It is not enough that there shall be a sop of didactic morality poured over the story. Pious talk does not cure the inherent badness of a book, the influence of which is otherwise unwholesome. An exciting, improbable story, which leads young readers through scenes of wickedness and introduces them to bad people, is not redeemed by a preachment at the end. And there are hundreds of just this kind of books given to children at every turn of the holiday season.

"How shall I know what is wholesome and what is not?" asks a busy parent. "I cannot take time to read every book I buy for my boys." Then, sir, you have no right to give books to your boys unless you can learn from some judicious friend, or from a conscientious critic, what their character is.

It will not do to trust too implicitly to the judgment of publishers, even though they be men of undoubtedly correct intentions. Even the Sunday School Unions and Publishing Houses sometimes make mistakes. We once asked a juvenile thief in a Police Court how he fell into bad ways, and learned that he had become enamored of a thief's life through reading a book entitled "The House of the thief," a book written and published expressly for Sunday Schools, and intended to teach a lesson of honesty. An examination of the well-told story convinced us that it could hardly fail to produce in many children precisely the result which it had wrought in the life of this one.—*Hearth and Home.*

Derivation of "Yankee."—The term "Yankee" is a modification of the French term *Anglais*, meaning English. It is stated that the English settlements were called by the aborigines *Ingese* or *Yangese*, and in after years, especially during the struggle between the colonists and the mother country, *Yangese* became modified into "Yankee," and was used by the British soldiery as an opprobrious epithet. According to the Thiery, "Yankee" is a corruption Yankin, diminutive of John, a nickname given to the English colonists in Connecticut by the Dutch settlers in New York. Dr. Gordon, in his "History of the American War," says it was a cant word in Cambridge, Mass., as early as 1713, and that it means excellent—as a yankee good horse, or yankee good cider. He supposes that it was adopted by the students as a by-word, and being carried by them from the college obtained currency in other colonies, and so was subsequently applied to the New Englanders.

In the late war between the North and South the soldiers of the Union army were called Yankees, or "Yanks" by confederate soldiers.

The ruin of most men dates from some vacant hour. Occupation is the armor of the soul. There is a satirical poem in which the Devil is represented as fishing for men, and fitting his bait to the taste and business of his prey; but the idler, he said, gave him no trouble, as he bit the naked hook.

There is a perennial nobility, and even sacredness in work. Were he never so benighted, forgetful of his high calling, there is always hope in a man that actually and earnestly works; in idleness there is perpetual despair. Blessed is he who has found his work. Labor is life.

Young Folks' Column.

A Text for Boys.

A man of very pleasing address, but very dishonest in his practices, once said to an honorable merchant, "whose word is as good as his bond," I would give fifty thousand dollars for your good name,"

"Why so?" asked the other in some surprise.

"Because I could make a hundred thousand dollars out of it."

The honorable character, which was at the bottom of the good name, he cared nothing for; it was only the reputation, which he could turn to an account in a money point of view, which he coveted.

But a good name cannot be bought with silver; it, of all other possessions, must be fairly earned. When it is possessed, it is better business capital than a great sum of money. It is a capital any boy or girl may secure. Honesty must be its foundation, even the smallest particulars. When an employer says, "That this is a boy I can trust," he will find himself in demand, provided he joins with it industry. "The hand of the diligent maketh rich."

It seems hard at the time, may be—this ceaseless round of work, while other boys are lounging about store-steps, or playing on the green. But the reward will come if you are faithful. While loungers are dragging out a miserable lifetime in privation and poverty, the hard-working boy lives at his ease, respected and honored.

Remember this, if you desire to make your way in the world. There is nothing that can serve your purpose like a name for honesty and industry; and you will never acquire either if you are a shirk at your business. Every body suspects a lad who is often seen about saloon-doors or tavern-steps. It undermines a boy's character for honesty very rapidly to mix with society he finds there; and such habits tend to anything but industrious ways.

"A good name is rather to be chosen than great riches, and loving favor rather than silver and gold." Print that text on your heart, and carry it with you in all your walks and ways. It is worth far more than silver and gold to you.—*Presbyterian.*

One Worm Did It.

One day I was walking with some friends through Sudbrook Park, in Surrey, when Dr. Ellis drew our attention to a large sycamore tree, decayed to the core.

"That fine tree," said he, "was killed by a single worm."

In answer to our inquiries, we found that about two years previously the tree was as healthy as any in the park, when a wood-worm, about three inches long was observed to be forcing its way under the bark of the trunk. It then caught the eye of a naturalist who was staying here, and he remarked, "Let the worm alone, and it will kill the tree." This seemed improbable; but it was agreed that the black-hearted worm should not be disturbed.

After a time it was discovered that the worm had tunnelled his way a considerable distance under the bark. The next summer the leaves of the tree dropped off very early, and in the succeeding year it was a dead, rotten thing, and the hole made by the worm might be seen in the very heart of the once noble trunk.

"Ah!" said one who was present, "let us learn a lesson from that single tree. How many who once promised fair for usefulness in the world and the church have been ruined by a single fault, a single sin!"

Boy Heroes—No. 5. A Self Sacrificing Boy.

In one of the early battles of the south during the American revolution, Capt. Messer, an American officer, was made a prisoner by the enemy and was sentenced to be hanged. As the Captain was led out to execution, his wife fell weeping to the ground, and his little boy with eyes filled with tears, came running to the commanding officer, Gen. Tyron, and said:

"Sir, hang me and let my father live."

"Who told you to say that?" asked the officer.

"No one."

"But why do you ask it?"

"Because if you hang my father, my mother will die and the children will perish." The heart of the officer was melted. He said:

"Your father shall not be hanged today."

He could not hang the father of such a boy.

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—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPEOULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

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High-Grade Cows,
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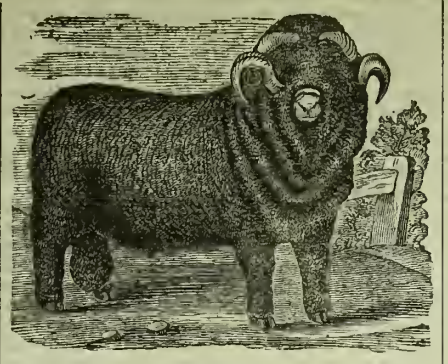
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These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

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15v5—3m

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—AT THE—

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—ON—

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The undersigned will offer for sale at public auction, at the WALSH RANCH, in Colusa County, Cal., on WEDNESDAY, APRIL 30th, 1873, commencing at 10 o'clock A. M., some

Ten or Twelve Hundred Head of Fine American Stock Cattle.

The reputation of the Cattle bred on the above named Ranch is well and favorably known, and the lot now offered for sale is regarded by competent judges to be unequaled by any band in the State. Among these Cattle are to be found a fine lot of young Bulls and some superior Milch Cows. The sale will be made in lots to suit purchasers.

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The HON. JOHN BOGGS, of Colusa County, will conduct the sale.

TERMS OF SALE—Cash, U. S. gold coin.

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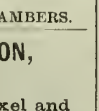
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[Continued from Page 293.]

and this is the case generally along the west side of the San Joaquin Valley.

LAKE.

Bee, May 3: THE EPIZOOT has attacked a number of horses hereabouts, and they are resting under treatment. The disease is not very severe, and no worse result is anticipated than a week or two of forced idleness and rest for the animals. The Calistoga stage ceased, running last Thursday week, caused, as we learn, by Broadwell & Bassett's horses being attacked by the epizoot. We learn that the disease is generally prevailing in a mild form throughout the county.

NAPA.

Reporter, May 3: FRUIT CROP.—From all parts of the county we learn that the fruit crop the present year will be light. There will not be more than a half crop of grapes, some say not more than a quarter. The other kinds of fruit have suffered also severely. The same is true of Sonoma county. Mendocino has not suffered so severty, vegetation there being later. In Lake, the frost has been as bad as in Napa.

SAN JOAQUIN BARLEY.—Mr J. M. Thompson handed us last Saturday a single stand of barley which contained 42 heads, all from one seed grain. The late sown grain in this valley will not amount to much this year, being already blasted. The early sown grain under favorable circumstances will yield on an average abont one half a crop. The barley spoken of above came from the farm of T. & J. M. Thompson, and would indicate that their locality is eminently favorable for barley.

Register, May 3: THE EPIZOOTY.—Quite a band of horses, 25 or 30, were taken from Scribner's stable to graze outside during the day. The horse disease has got at least nineteen-twentieths of the town horses. At three of the principal stables, Scribner's Clifford's, and O'Connell & Kane's, there are 80 on the sick list. Mr. Scribner sends out the Knoxville stage semi-weekly, instead of tri-weekly, as formerly, sending only a two horse vehicle to carry the mail. Mr. Clifford says his horses all seem to be recovering, but if used they get worse again. He has kept up the daily stage to Sonoma by bringing constant reinforcements of fresh horses from the country, and has thus far not missed a trip.

Some of the horses are being exercised on the streets, and it is a strange sight to us to see the four horse coaches that were wont to dash so gaily into town moping along, the horses drooping and spiritless, and drivers looking as though they had lost their last friend. Elegant hacks, too, with circular glass fronts that whilom glimmered in the sunlight, now drag along our spleudid drives slow, solemn and passengerless as a midnight rehearsal for a funeral. We hope the trouble will soon be over. It puts a kind of damper on everything to have the horses gone. The streets miss their familiar tread, and we scarcely knew how much of its life and chcerfulness the town owed to its faithful horses until they are suddenly taken away.

PLACER.

Argus, May 3: DUTCH FLAT, April 29.—The weather at this place continues cool for this time of the year; the rain that has fallen has been of incalculable benefit to all the people hereabouts, and the cool atmosphere which it induces has not only a bracing effect upon the poor sick horses (large nnmbers of which are down with the epizooty), but also tends to preserve the snow in the mountains, and lengthen out the water supply for mining purposes.

FRUIT.—The fruit, which was snpposed to have been destroyed by the frost of a few weeks ago, is proving much better than was expected. There will be a fair crop of peaches, a large crop of apples; cherries and plums suffered most. The grape vines were not far enough advanced to suffer injury, and are now looking fine.

SANTA CLARA.

Mercury, May 6: SILK CULTURE.—Mr. Wm. Paul, of Mayfield, is enteriug upon the experiment of silk culture on a pretty large scale. He has now about 6,000 mulberry trees four years old, and has recently erected a cocoonery thirty by sixty feet and sixteen feet high, which he will use to its fnll capacity the present season. He planted his trees at first, in rows six feet apart each way; but they grew so rapidly that he soon found it necessary to remove every other tree; and now their growth has been so vigorous that their brauches meet and completely cover the ground. A party of experienced silk growers—Italians—will take charge of the work, with the prospect of making it a fine success.

Advocate, May 3: ANOTHER SPRINKLE.—Last Saturday morning a light rain set in, which continued for several hours. It was very warm, and althongh it would not be considered much more than a drizzle, still it wet the surface of the ground and proved of considerable benefit. In some portions of the valley more water feel than in this city, and if we could have such showers weekly for several weeks, splendid crops would be the result.

SANTA BARBARA.

Index, May 1: CROP PROSPECTS.—From what we learn of the upper portion of the county crops are suffering a good deal for want of the later rains. The foot-hills north of the town look very brown and dry, but through Montecito and Carpenteria the prospects are fair for a good yield. Improved methods of cultivation, and a larger experience in regard to the soil and climate, are rendering our farmers every year more independent of a heavy rainfall. They will not sell out at half price now at the approach of a dry year as they would have done, and many did do, two or three years ago.

SAN LUIS OBISPO.

Tribune May 3: LIONS AGAIN. — Mr. Irvine Johnson, who keeps a band of his horses on the Huasna rancho, a few days since suffered the loss of two of his finest yearling colts by these beasts. We think the stock-raisers of that section should inaugurate some means for the extermination of these lions. We are continually hearing of depredations on stock committed by them; and what is worse they seem to always choose the best of the flock for their victims.

EPIZOOTY.—We are not a veterinary surgeon; we do not want to be, we never professed to be even the master of common bellyache in horses. But we have got the epizootic; the whole town has it; horses and men, and we have seen a few asses perambulating the streets with it. It is all over our county; it laid its bony fingers on the Cambria stage and checked its wild, galloping career. It transformed that Cambria stage from the butterfly state of a four-horse coach, to the chrysalis of a moderate sulky.

SONOMA.

Flag, May 1: THE CROPS.—The outlook for good crops is very good at present in this section of the county, although many pieces of grain will inevitably be very light.

STANISLAUS.

News May 2: WEATHER AND CROPS.—Our weather and crop report for the week varies very little from the last. Saturday morning last it was cloudy and a splendid opportunity was offered for a rain, still it came not. Sunday the weather was cool and variable. Monday and Tuesday a high north-western wind swept over the valley, causing general dissatisfaction. The crops, consideriug the long drouth and windy weather, are remaining green remarkably well. From the west side of the San Joaquin, reports are discouraging. Rain would not save a great deal of the grain in that locality. Even in the most promising fields not exceediug one half a crop can be looked for, whilst a great many will be a total loss. Rain and cool weather would be a great saving to the country, as even yet there are many fields that could be brought up.

TEHAMA.

Independent, May 3: HEAVY RAIN STORM.—We are informed that a very heavy rain storm passed over the southern part of this and the northern part of Colusa counties, on Thursday evening. Our informant says that on his ranch, eight miles below here, that more rain fell than any time during last winter; three miles this side not a drop fell. This rain will be the cause of saving many acres of grain which was begining to dry up.

SAN JOAQUIN.

Tulare *Times*, May 3: THE GRAIN CROP.—A gentleman, living in the Antelope district, and who is quite familiar with the condition of the grain crops north of the Keweah river, thinks that the failure will not be nearly so complete as has been supposed. In many fields there will be a full half-crop or more, even though there comes no more rain. Further, the season seems to have demonstrated the value of that kind of soil known as dry-bog, for the production of wheat. We think that our farmers may, as a rule, harvest enough to save themselves from total loss, while our excellent wool-clip will insure the continued prosperity of the valley.

Argus, May 3: EPIZOOTY.—This complaint is taking a wide range in this valley, sparing few if any animals. With horses it has not proved as severe as in other sections of the country, though large numbers have been sick with it. Sheep have also been attacked with the complaint, and many have died in the southern portion of the county.

Seth Green on Fish.

How the Rivers, Brooks, Lakes, Ponds and Bays of the United States are Stocked.

ROCHESTER, April 22, 1873.—"I want to see every lake in the Union become a fish pond," Seth Green said to me this morning. "And," he continued, "as there are 647 lakes in this State of New York, jnst see the waters we might stock with the people's food."

"Such a provision would give a lake full to about every six thonsand of our popnlation ?"

"Yes; those bodies of water are small, but abundautly able to support any demand that may be made upon them."

Forty Years in the Harness.

"Then you are thoroughly in earnest Mr. Green. You propose to make fish culture a national busiuess ?"

"Certainly. Here I have been nearly forty years of my life a pisciculturist, and I am convinced that the old fishermen know literally nothing of the rationale of their art. Fish culture is a subject developing day by day. A few years ago the vast spawning operations now practiced by me at the State hatching house, at Cale donia Springs, were unknown. Even now general ignorance prevails among the craftsmen. When I went down to stock the Connecticut River with shad,

The Yankees

Stood on the banks of the stream and laughed at me. The fishermen derided me because I told them that I was going to cheapen fish; the boys hooted at me, and accidentally on purpose they would let a shad fall on me. Thus I became a martyr. These pleasant little episodes made me laugh at first; but at last I got tired of the circus; but it wouldn't adjourn. Time rolled on and shad fell in price because the spawn had proven fruitful, and they became so plenty that the market values fell from $18 and $50 a hundred to as low as from $3 and $18 a hundred !"

"Yes," added Mr. Cooper, one of the former Commissioners of the New York State Fisheries, and who was present in the room, "Seth knows more about fish culture than any man in the world. He is thoronghly practical—an angler by nature, a good shot, fond of the bush and forest, always lingering about brooks and streams, turning over stones and finding what there is new in our creation. If he comes upon a bug generally unknown, he can tell you its habits, age and ways of multiplication. He has been a close observer."

I glanced towards

Mr. Seth Green

To survey him more critically after this brief description of his character. He appeared to me about fifty-five years of age. His frame is stout, but not large, and he has the carriage and ways of a man who has spent much time in the delightful solitudes of angling. He does nothing enthusiastically; never makes a statement without qualifying it; but will talk fish to you until you feel the scales growing on your back. You have half a mind when surveying Mr. Seth Green, to consider him Mr. Shad Green, to look for his gills and fins. He really talks well, and, so to speak, rather humanizes fishes as he proceeds to recount the routine of their lives, their nourishment, domestic intercourse and final maturity. Here is a man whose knowledge of the piscatorial world is vast, and who from boyhood to the present hour has never ceased to labor for the advancement of fish culture—a man who may be said to have produced more animal life than any one living in the world. Rochester has always been his home, and every citizen knows Seth and honors him as one of Rochester's worthy sons. It is fortunate for the State and Union that Mr. Green is superintendent of the fisheries, for, besides possessiug the qualities I have named, he does not believe in mere fancy culture like trout spawning—a luxurions and high-toned pastime—but in filling our lakes and rivers with millions and millions of fish for the benefit of our millions and millions of people. We talked long and earnestly upon this subject, and Mr. Green said:

"I am constantly trying

Bold Experiments.

For instance. I placed in the Genesee River in 1871 over 15,000 young shad, with the object of seeing if they would live in fresh water without going into salt water, as their natural habits incline them. They did live and thrive, and in June, 1872, young shad were caught at the mouth of the Genesee six inches long. So up to this point the experiment has proven a success. We intend to keep on finding out the nature of all fish and if they cannot live in other climates and localities than their own just as well as man does."

"But, strictly speaking, all fish are local. They do not migrate ?"

"Yes, that is true. When I used to fish in Lake Ontario I would exhaust one locality, absolutely catch all the fish occupying and dwelling within a certain square. The fishing grounds then became destitute. But when I removed my nets further down the shore, say eight or ten miles, I found that fish were as plenty as ever."

"You mean

White Fish ?"

"Certainly, white fish are beiug consnmed very rapidly. It is now estimated that every four years the quantity of white fish in our great lakes is beiug reduced by fifty per cent. You thus perceive that it will not take long to completely exhaust all our waters. If other movements were not in contemplation to spawn and multiply, America would soon have none of the tribe. It is too bad when we have thousands and thonsands of miles of rivers and brooks, and vast lakes, to say nothing of the minor ponds, that we shonld not be, as we are by nature, the greatest fish raising people in the world."

Cheapening Food.

"It would cheapen all kinds of food, it seems to me."

"Obviously. If you get all the people of America eating shad, white fish, salmon and bass, and if you breed these fish so that it only costs the trouble to secure them, then a most important and nutritious article of food is on the table for a mere song. People will eat fish instead of beef. Beef being in small demand will thus cheapen, and so will all other meats in comparison. Now what does all this mean? It means the elevation of the laboring classes. It tells one that he can go to yonder lake or brook, catch his fish and have them on his table. Socially and morally fish culture is a blessing and a boon to toiling humanity. I am surprised that people do not see the economy involved in it."

"But I suppose that some notion of its benefits is getting abroad."

Educating Pisciculturists.

"In this way I am educating men in my employ in the art of spawning, and by-and-by we will have a profession of experts in the country. Every man cannot be a pisciculturist. It requires many qualities and long experience."

"That is proven by the number of gentlemen in this region whose trout ponds have failed, I suppose."

"Oh, it is perfectly natural that tront ponds should fail. The water may be bad; their owners may not be experts or assidous enough, and many of the seemingly unimportant details may be overlooked, whereas they are of vital consequence."

Bass.

"It is now only fourteen years." said Seth Green to me, "that fourteen bass were put into the Potomac River by an Englishman, and today it is the greatest bass stream in the world. See how they multiply. Another case: Only twenty-four were put in a lake in Orange county four years ago, and now over a ton of bass has been taken out."

"What do you call the mature age of the fish, say of all species, Mr. Green ?"

"All fish—there are exceptions—arrive at maturity, our *genus homo* twenty-one, when they are three years of age. They should be eaten then."

"Mr. Green, I have heard that you went out to California."

Taking Shad to California.

"Yes, I went out there and took with me 15,000 young shad and turned them loose in their rivers delivering in the Pacific. It was a great labor to transport them over the Pacific railway—so many changes of water and so little of it along the route; but I worked with my own hands and succeeded in getting through. This is the first time shad had ever been sent to the Pacific coast. Letters from California inform me that they are doing well. So I have been at work all over the United States carrying hundreds of thousands of small fry to stock the waters of the country. My experience among the Yankees was not so pleasant. What do you think of New Eugland generosity—the States of Massachusetts, Connecticut, Vermont and New Hampshire each made a special appropriation of $50 to pay my labor in making a perfect success in shad hatching; and they sent envoys who came to offer me the $200 ! I set loose 15,000,000 in their Connecticut River in one year."

"How, then, do you sum up the general result of your labors?"

A Few Figures.

"Shad have been cheapened all over the country. We are stocking streams, lakes and ponds day by day. Orders are coming in from all parts of the Union, and we are satisfied with our work. We encourage fishing with the hook and seek to discourage nets and seines. Politics have left us alone and we have left politics alone. We have put ninety-two bass in Brant's Lake, ninety in Tinxedo Pond; sixty black bass, sixty black pike, 400 rock bass in Conesus Lake; 100 Oswego bass and 400 rock bass in Schuyler Lake, and also 8,000 white fish; 10,000 white fish in Oneida Lake, and also 10,000 salmon trout; 3,000 white fish, 1,000 Oswego and black bass, 400 rock bass in Hatch Lake; 3,000 salmon trout in Eaton Reservoir, 1,000 bull heads in Chautaqua Lake, and 400 gold fish in Irondequoit Bay. These are only a few examples taken at random. In shad hatching a few entries will show the operations at Mull's Fishery in the year 1872:

May 19—Caught 136 shad; seven ripe; 150,000 spawn; water sixty-one and sixty-two degrees.

May 20—Canght 123 shad; nine ripe; 200,000 spawn; water sixty-one and sixty-four degrees.

June 4—Caught 103 shad; fourteen ripe; 230,000 spawn; turned loose 190,000 yonng shad fry; water sixty-one degrees.

Hatching

Hardly needs any explanation here, yet the marvelous discoveries that have been made in all the processes of incubation should be remembered by the reader. The female is taken when ripe, and her spawn gently removed by pressure and placed in a tin pan containing cold water. This spawn is then impregnated by exuding the milk of the male by the same process, after which the eggs are placed in a wooden box, and a stream of spring water is made to pass over them constantly. After three months the eggs have become tiny trout, but they are still burdened for thirty days by what is called the umbilical sack. They are then fed, sized and gradually matured. Salmon are hatched in the same manner. "Do you know," said Seth Green, as we were driving back, "that I stayed up in a tree two days to see two salmon spawn in 1838, and I am probably the only man in the world who has seen that evolution?" How characteristic of the man!

Shad are hatched in one week, and ueed nothing but a plain box with a wire bottom, so inclined to the surface that a constant agitation of the water is going on. Seth Green invented this system. Bass, and, indeed, all members of the perch family cannot be hatched as yet, but we do not know when some process may be discovered.—*New York Herald.*

ONE DAY'S STRAWBERRYING.—On Saturday, May 3, over fifty thousand pounds of strawberries were sent forward by the different growers around the Bay, the greater part of which were sold in our city at from 10 to 15 cents per pound, or $5,000 a day for strawberries. Considerable quantities are sent over the mountains to Nevada and adjoining territories.

A LOW priced thing is sometimes the dearest. The BEST is always cheapest. The "Blanchard" is the VERY BEST CHURN in the market.

Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Dif. Bet. Mail & Tel	Dif. Bet. S. F. & Tel.
FEB. 22	1 83¾	2 89@2 91	.....	.....	1.06¼
" 24	1 82½	2 89@2 91	.....	.....	1.07½
" 25	1 82½	2 85@2 87	2 89@3 13	15	1.03½
" 26	1 82½	2 85@2 87	.....	.....	1.03½
" 27	1 75	2 83@2 85	.....	.....	1.09
" 28	1 75	2 81@2 87	.....	.....	1.09
MAR. 1	1 75	2 81@2 87	.....	.....	1.09
" 3	1 75	2 81@2 87	.....	.....	1.09
" 4	1 75	2 81@2 87	2 89@3 13	6	1.09
" 5	1 75	2 82@2 89	2 77@3 03	17	1.10½
" 8	1 75	2 84@2 90	.....	.....	1.12
" 7	1 75	2 85@2 91	2 89@3 05	.....	1.13
" 8	1 80	2 85@2 91	.....	4	1.08
" 10	1 80	2 85@2 91	.....	.....	1.08
" 11	1 80	2 85@2 91	2 93@3 05	11	1.08
" 12	1 80	2 85@2 91	.....	.....	1.08
" 13	1 80	2 85@2 91	.....	.....	1.08
" 14	1 80	2 89@2 91	2 89@3 01	5	1.10
" 15	1 80	2 89@2 91	.....	.....	1.10
" 17	1 80	2 81@2 87	.....	.....	1.04
" 18	1 80	2 81@2 87	2 87@2 99	9	1.04
" 19	1 80	2 81@2 87	.....	.....	1.04
" 20	1 80	2 79@2 83	.....	.....	1.01
" 21	1 80	2 79@2 83	2 87@2 99	12	1.01
" 22	1 80	2 79@2 83	.....	.....	1.01
" 24	1 80	2 79@2 83	.....	.....	1.01
" 25	1 80	2 79@2 83	2 83@2 91	6	1.01
" 26	1 80	2 79@2 83	.....	.....	1.01
" 27	1 80	2 79@2 83	.....	.....	1.01
" 28	1 80	2 79@2 83	.....	.....	1.01
" 29	1 80	2 77@2 81	2 81@2 89	6	.99
" 31	1 80	2 75@2 79	.....	.....	.97
APR. 1	1 80	2 73@2 79	2 75@2 91	8	.96
" 2	1 80	— —@—	.....	.....	.96
" 3	1 82½	2 71@2 81	.....	.....	.93½
" 4	1 82½	2 71@2 81	2 75@2 91	7	.93½
" 5	1 82½	2 71@2 81	.....	.....	.93½
" 7	1 82½	2 71@2 81	.....	.....	.93½
" 8	1 82½	2 76@2 82	.....	.....	.96½
" 9	1 82½	2 76@2 82	.....	.....	.96½
" 10	1 80	2 76@2 82	.....	.....	.99
" 11	1 80	2 76@2 82	.....	.....	.99
" 12	1 80	2 76@2 82	.....	.....	.99
" 14	1 80	2 76@2 82	.....	.....	.99
" 15	1 80	2 76@2 82	.....	.....	.99
" 16	1 80	2 76@2 82	.....	.....	.99
" 17	1 81¼	2 76@2 82	.....	.....	.97¾
" 18	1 82½	2 76@3 82	.....	.....	.96½
" 19	1 82½	2 74@2 82	.....	.....	.95½
" 21	1 82½	2 74@2 82	.....	.....	.95½
" 22	1 82½	2 76@2 82	.....	.....	.96½
" 23	1 82½	2 76@2 82	.....	.....	.96½
" 24	1 82½	2 81@2 83	.....	.....	.99½
" 25	1 82½	2 83@2 87	.....	.....	1.02½
" 26	1 82½	2 83@2 87	.....	.....	1.02½
" 28	1 82½	2 83@2 87	.....	.....	1.02½
" 29	1 82½	2 85@2 89	.....	.....	1.04½
" 30	1 82½	2 85@2 89	.....	.....	1.04½
MAY 1	1 82¼	2 85@2 89	.....	.....	1.04½
" 2	1 82½	2 85@2 89	.....	.....	1.04½
" 3	1 82½	2 83@2 87	.....	.....	1.02½
" 5	1 82½	2 83@2 87	.....	.....	1.02½
" 6	.....	2 83@2 87	.....	.....	9[illegible]
" 7	.....	2 83@2 87	.....	.....	9[illegible]

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indcated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, May 7, 1873.

The tone of the Wheat market has improved very much this week, it having gone up from 5 cents to 7½ cents. This is in consequence of the demand for shipment exceeding the supply. We have now about arrived at the end of the season, while England's wants are apparently as pressing as ever. If we had a product double that which we had last year, we could have just as readily disposed of it. The receipts from the first of July to the end of this month have been over 11,000,000 of centals, while the exports for the same date have amounted to 9,873,487, including both Wheat and Flour. The total value of this has been $17,746,745, nearly equaling the total value of our exports last year.

The continuance of dry weather will render the coming crop much shorter than had been anticipated, but we will have at least as much for export as last year, and shall be able to obtain much better prices for it.

Exports this week have been exceedingly small, including per "Rosendael," to Queenstown, 10,136 centals; per "Skiddane," to Cork, 23,590 do and per "Governor Morton," to Cork, 34,465 do, making a total of three cargoes of 68,191 centals, valued at $126,558.

Receipts.

Receipts of Bay Produce have increased this week over last in the matter of Wheat, and decreased in that of Wine, Barley, Oats, Potatoes, etc. Receipts of Flour have decreased one-seventh, those of Wheat have increased 50 per cent., those of Barley have decreased in the same ratio, so also have those of Potatoes; those of Wine have decreased nearly one-fourth, those of Bran have increased about seventy per cent., while those of Hides have decreased 33 per cent. Wool is coming in yet more freely, and receipts have increased 25 per cent. over the previous week.

Receipts of Wheat at Oakland Wharf have aggregated 21,800 centals or 109 car loads.

We have received from Mexico by the "California," 2,847 Hides; and from Oregon, by the "Ajax," 3,766 sacks of Oats, 5,338 do of Wheat; 1,158 quarter sacks and 1,273 half sacks of Flour, 855 do of Bran, and 3,710 cases of Salmon.

Receipts of Coast produce last week aggregated 366 centals of Wheat; 6,496 sacks of Barley; 40 do of Oats; 4,054 do of Potatoes; 19 barrels, 27 pipes, 3 casks, and 1 keg of Wine; 2,127 bales and 47 half bales of Wool, 2,973 Hides; 1,211 sacks of Corn; 11 do of Castor Beans; 139 do of Beans; 204 do of Bran; and 93 do of Middlings.

Barley.

Receipts of Barley from coast ports have been large this week, but those from the interior have been small. Nevertheless the total, 8,786 centals, still exceeds that of last week. The market is rather weak. We note sales of 900 sacks of Coast Feed at $1.17½; 600 do at $1.00; 600 do at $1.15; 400 do Bay Brew at $1.37½; 700 do Choice Brewing $1.40; 200 do at $1.50; and 4,000 do at private rates.

Flour.

The market has advanced 25 cents in consequence of the advance in Wheat. Exports have been large, including 395 harrels; 1,652 half sacks, and 22,617 quarter sacks to China, Japan, New York, Panama, and Central America—principally China.

Hay.

Receipts have been but small and of poor quality during the week It is chiefly Oat or Oat mixed with Wheat.

Hops.

There is no change noticeable since our last. Business has been dull and the sales have been too small to record.

Oats.

We have again to record large receipts from Oregon, but those from the interior and from coast ports have almost ceased. Business is rather dull yet, in consequence of the epizooty. We note sales of 100 sacks of poor California, at $2.05; 200 do of California, at $2.10; 200 do at $2.20; 200 do at $2.20 to $2.25, and 200 do at $2.25.

Potatoes.

The tone of the market is much the same as that of last week, but receipts have fallen off more than 50 per cent. We note sales of 1,500 sacks of Humboldts at 90 cents to $1.10; 150 do Petaluma at 80c; 300 do Bodega at 80c and 100 do New Mission at $2.50.

Wheat.

The total receipts last week were 113,294 centals; double those of last week. At the same time the price has increased, as also has the demand. This is just as we predicted a few weeks ago. Prices range from $1.80 to $1.97½. Prices have fallen in Liverpool two cents according to the telegram received by the Merchants' Exchange and the Associated Press. It is now $2.83 to $2.87; freights are nominally the same as they were last week. We note sales of 600 sacks at $1.75; 6,400 do at $1.85; 5,700 do at $1.87½; 2,450 do at $1.90; 1,750 do at $1.92½; and 500 do at $1.95.

Wool.

The market is quiet this week. Receipts have been large, amounting to 5,307 bales and 47 half bales from the interior and from coast ports. We note sales of 551 lbs of Spring, at current rates.

GENERAL MERCHANDISE.

Business has been very dull, and there is little of note to report. Bags have weakened in consequence of the dry weather, rendering it probable that the demand will be in excess of the supply. Imports have included the miscellaneous cargoes of the "Patmos" and the "Electra," from Boston. Exports have included the "Colorado," to China and Japan, with the usual assorted cargo; the "Maramissic," to Honolulu, with 250,000 feet of Lumber, and the "Great Republic," to New York, with the usual cargo. Exports have amounted during the week in value to $375,854.

DOMESTIC PRODUCE.

WEDNESDAY M., May 7, 1873.

BEANS.		Oats, Coast	2 10 @2 15
Beans, sm'l wh. ₰ lb	5½@ —	do, Light	2 15 @2 30
do, butter	5¼@ —	Corn, White	1 15 @ —
do, large, do	5½@ —	do, Yellow	1 15 @ —
do, hayo	3 @ 3¼	Buckwheat	— @1 50
do, pink	— @ 3½	Rye	2 25 @2 50
do, pea	— @ 5¾	**HOPS.**	
BROOM CORN.		California, 1871, ₰ lb	— @ —
Per ton	$40@120	do 1872	50 @ —
DAIRY PRODUCE.		Eastern, 1872, ₰ lb	62½@ —
Butter, Cal. fresh, ₰ lb	— @ —	**MISCELLANEOUS.**	
do, ordin'y roll	25 @ —	Beeswax, per lb	32½@ 35
do, choice	30 @ —	Honey, choice	10 @ 22½
do, new firkin	30 @ —	Los Ang. Honey	12½@ 30
do, pickled	28 @ 30	Onions	3 @ 8
do, New York	— @ —	Flaxseed	3 @ —
Cheese, Cal. new	13 @ 15	Canary do	4 @ 5
do, Eastern	18 @ —	Mustard do, white	1½@ 2¼
Eggs, Cal. fresh	28 @ 30	do, brown	2 @ 3
do, Oregon	22½@ —	Alfalfa	35 @ —
do, Eastern	— @ —	Ky. Blue Grass	50 @ —
FEED.		Timothy	35 @ —
Bran per ton	— @25—	Italian Rye	18 @ —
Middlings	30 00 @ —	Perennial do	35 @ —
Hay	15 00 @22 —	**NUTS.**	
Straw	— 00 @12—	Peanuts per lb	3 @ 5
Oil cake meal	30 00 @ —	Pecan nuts	16 @ 18
Corn Meal	30 00 @50—	Hickory do	10 @ —
FLOUR.		Brazil do	16 @ —
Alviso Mills, bbl	4 25 @6 00	Coc'anuts, ₰ 100	9 00 @ —
California	4 25 @6 00	Alm'ds in'd she	10 @ 12½
City Mills	4 50 @6 00	do, soft	20 @ 25
Comme'l Mills	4 50 @6 00	**POTATOES.**	
Golden Gate	4 50 @6 00	Sweet, per lb	— @ —
Golden Age	4 50 @6 00	Humboldt	1 00@1 10
National Mills	4 50 @6 00	Monterey	— @ —
SantaClaraMills	4 50 @6 00	Tomales	60@ 80
Genesee Mills	4 50 @6 00	**POULTRY & GAME.**	
Oregon	4 50 @6 00	Live Turkeys ₰ lb	18 @ 20
Vallejo Star	4 50 @6 00	Hens, per dz	8 00 @9 00
Venus, Oakland	4 50 @6 00	Roosters	8 00 @9 00
Stockton City	4 50 @6 00	Chickens	6 00 @7 00
Lombard. Ss	4 50 @6 00	Ducks, tame, doz	10— @11—
FRESH MEAT.		Geese, per pair	2 00 @2 50
Beef, fr quality, ₰ lb	7 @ —	Hare, per doz	2 50 @3 56
do, seoond do	6 @ —	Snipe, Eng., doz	2 50 @ —
do, third do	3½@ 5	Venison, per lb	— @ —
Veal	6 @ 7	**PROVISIONS.**	
Mutton	6 @ 6½	Cal. Bacon, per lb	12 @ 13
Pork, undressed	7 @ 7¼	Eastern do	12 @ —
do, dressed	9½@ 10	do sugared	— @ —
GRAIN, ETC.		Cal. Hams	— @ 14
Wh't Cal. c'st. cl.	1 85 @ —	Eastern do	12 @ —
do, shipping	— @1 90	Cal. Smoked Beef	11 @ 12
do, milling	1 90 @1 97½	**WOOL, ETC.**	
do, Oregon	— @1 97½	Spring, short, ₰ lb	14 @ 18
Barley, Dark C'st.	1 15 @1 20	do choice	20 @ 22
do, Light	1 25 @1 30	Burry	13 @ 16
do, Brewing	1 35 @1 40	Hides, dry	17 @ 17½
		do wet salted	9 @ —
		Tallow	7 @

Leather Market Report.

[Reported for the PRESS by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, May 7, 1873.

The market for Sole Leather continues the same. French Calf steady at old prices, with light demand.

City Tanned Leather, ₰ lb	26@29
Santa Cruz Leather, ₰ lb	26@29
Country Leather, ₰ lb	25@28
Stockton Leather, ₰ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₰ doz	55 00@ 70 00
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	66 00@ 72 00
Ogeran Calf, ₰ doz	54 00@
Simon, 18 Kil., ₰ doz	60 00@ 62 00
Simon, 20 Kil. ₰ doz	65 00@ 67 00
Simon, 24 Kil. ₰ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₰ lb	1 00@ 1 30
California Kip, ₰ doz	50 00 to 60 00
French Sheep, all colors, ₰ doz	8 00@ 15 00
Eastern Calf for Backs, ₰ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₰ doz	9 00@ 13 00
Sheep Roans for Linings, ₰ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₰ pair	5 25
Good French Calf Boot Legs, ₰ pair	4 50@ 5 00
French Calf Boot Legs, ₰ pair	4 00
Harness Leather, ₰ lb	30@ 37½
Fair Bridle Leather, ₰ doz	48 00@ 72 00
Skirting Leather, ₰ lb	34@ 37½
Welt Leather, ₰ doz	30 00@ 50 00
Buff Leather, ₰ foot	21@ 25
Wax Side Leather, ₰ foot	17@ 19
Eastern Wax Leather	28

GENERAL MERCHANDISE.

BAGS.		**PAINTS.**	
Eng. stand. Wh't	17 @ —	Atlan. W. Lead	11¾@ 12½
Flour Sacks ½s	13½@ 16	Whitening	— @ 2
" " ¼s	8½@ 9¼	Chalk	— @ 1
Stand. Gunnies	17 @ 17½	Paris White	— @ 3
" Wool Sacks	60 @ 65	Ochre	— @ 3
" Barley do	18 @ —	Venetian Red	— @ 3
Hessian 40-in. gds	12 @ —	Red Lead	— @ 11
do 60	17 @ —	Litharge	— @ 11
Burlaps, yard	12 @ —	**RICE.**	
CANNED GOODS.		China No. 1, ₰ lb	7 @ —
Asst'd Pie Fruits in 2½ ₰ cans	3 00 @ —	do 2, do	6¾@ 7
do Table do	3 75 @ 4 —	Japan	6½@ 7½
Jams & Jellies	4 — @ 4 25	Patna	6 @ 6½
Pickles ½ gl	3 25 @ 3 75	Hawaiian	8 @ 9
COAL—Jobbing.		**SALT.**	
Australian, ₰ ton	14 — @15—	Cal. Bay, per ton	5 00 @15—
Coose & Bel. Bay	8 50 @ —	Carmen Island	14 00 @30—
Seattle	11 00 @ —	Liverpool fine	25 00 @26—
Cumberl'd, cks	26 00 @ —	do coarse	9 00 @20—
do bulk	22 50 @23—	**SOAP.**	
Lehigh	20 00 @ —	Castile ₰ lb	12 @ 12½
Liverpool	11 00 @12—	Local brands	5½@ 7
West Hartley	14 00 @16—	**SPICES.**	
Scotch	12 00 @14—	Allspice, per lb	— @ 16
Scranton	17 00 @ —	Cloves	27½@ —
Vancouver's Isl	12 00 @14—	Cassia	30 @ —
Charcoal, ₰ sk	1 00 @ —	Nutmeg	1 00 @ —
COFFEE.		Whole Pepper	23 @ 24
Costa Rica per ₰	18½@ 19¼	Ground Allspice	25 @ 30
Guatemala	17¾@ 18½	do Cassia	45 @ 50
Java	22 @ 23	do Cloves	30 @ 35
Manilla	17½@ —	do Mustard	30 @ 32½
Ground In ca	21½@ —	do Ginger	25 @ 30
Chicory	8 —	do Pepper	25 @ 30
FISH.		do Mace	1 50 @1 75
Pac. Dry Cod, new	7 @9 —	do Coffee	25 @ —
cases	8 @ 8½	**SUGAR, ETC.**	
Eastern Cod	9 50 @ —	Cal. Cube per ₰ lb	12½@ —
Salmon in bhls	8 00 @ —	Circle A crushed	12½@ —
do ½ bbls	4 50 @5 00	do granulated	11¾@ 12
do 2½ ₰ cans	— @3 50	Golden C	10 @ —
do 2₰ cans	— @3 50	Hawaiian	20 @ 22½
do 1₰ cans	— @2 50	Cal. Syrup in bls.	52½@ —
Pick. Cod, bbls	— @ —	do in ½ bls.	55 @ —
do ½ bbls	— @ —	do in kegs	60 @ —
Cal. Smoked	— @ —	**TEA.**	
Herr'g, bbls	3 50 @ —	Colong, Canton, ₰ lb	19 @ 25
Mack'l, No. 1, ½ bls	00 @ 9 50	do Amoy	23 @ 50
" Extra	— @14 00	do Formosa	40 @ 80
" in kits	2 50 @3 00	Imperial, Canton	25 @ 35
" mess	— @4 00	do Pingsuey	45 @ 80
" ex. mess	— @5 00	do Moyune	60 @1 00
NAILS.		Gunpo'der, Cant.	30 @ 42½
Assorted size, ₰ lb	5¾@ 9 —	do Pingsuey	50 @ 90
OILS.		do Moyune	65 @1 25
Pacific Glue Co. Neat F't No. 1	— @ —	Y'ng Hy., Canton	28 @ 40
Pure	1 25 @ —	do Pingsuey	40 @ 70
Castor Oil, No. 1	1 35 @1 40	do Moyune	65 @ 85
do do No. 2	1 25 @1 30	Japan, ½ chests, bulk	30 @ 75
Cocoa Nut	60 @ —	Japan, lacquered bxs, 4½ and 5 ₰s	45 @ 67
Olive Plaguiol	5 00 @ —	Japan do, 3 ₰ bxs	45 @ 90
do Possel	4 75 @ —	do pl'n bx, 4½ ₰	35 @ 65
Palm	9 @ —	do ½ & 1 ₰ paper	30 @ 55
do Bagicalupi	— @ —	**TOBACCO—Jobbing.**	
Linseed	1 05 @1 10	Bright Navys	52½@ 60
China nut in cs	75 @ 80	Dark do	50 @ 55
Sperm, crude	1 25 @ —	Dwarf Twist	60 @ 65
do bleached	1 90 @ —	12 inch do	60 @ 67½
Coast Whales	40 @ 45	Light Pressed	65 @ 75
Polar, refined	55 @ —	Hard do	60 @ 70
Lard	95 @ —	Conn. Wrap'r	40 @ 50
Coal, refined Pet	40 @ 42	Penn. Wrapper	35 @ 45
Cleophins	40 @ —	Ohio do	30 @ 40
Devoe's Bril't	44 @ 45	Virgi'a Smok'g	60 @ 95
Long Island	40 @ —	Fine ot che'g, gr.	8 50 @9 25
Eureka	40 @ —	Fine out chewing, buc'ts.	75 @ 90
Downer Kerose'e	50 @ 55	Banner fine cut	9 25 @ —
Gas Light Oil	40 @ —	Eureka Cala	8 50 @ —

FRUIT MARKET.

The supply of Oranges and Lemons is good this week. So also is that of Bananas and Pineapples. Apples and Pears are out of the market.

FRUIT MARKET.		Peaches, ₰ lb	11 @12½
Tahati, Or. ₰ 1000	40 00@ —	Apricots, ₰ lb	—@—
Cal. do	40 00@50 00	Plums, ₰ lb	5 @10
Limes, ₰ M	—@20 00	Pitted, do ₰ lb	15 @20
Cal. Lemons, 1000	45 00@ —	Raisins, ₰ lb	9 @12½
Bananas, ₰ bnch	—@ 3 00	Black Figs, ₰ lb	8 @—
Pineapples, ₰ dz	9 00@ —	White, do	— @15
Apples, eat'g, bx	— @ —	**VEGETABLES.**	
Pears, Eating	1 50 @2 50	Cabbage, ₰ dz	.75 @—
Pomegran's, ₰100	— @ —	Garlic, ₰ lb	6 @ 8
Grapes, Mission	— @ —	Green Peas	3 @ 5
Rose of Peru	— @ —	Green Corn ₰ doz	— @—
Blk Hamburg	— @ —	Marrowfat Squash per ton	— @ 50
Black Prince	— @ —	Artichokes, ₰ lb	2 @—
Muscat of Al'r	— @ —	String Beans, ₰ lb	.15 @20
Flame Tokay	— @ —	Lima Beans	6 @—
Black Morocco	— @ —	Peppers dry	25 @30
Wine Grapes	— @ —	Okra	.30 @40
DRIED FRUIT.			
Apples, ₰ lb	7 @ 9		
Pears, ₰ lb	7 @ 9		

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₰ M	$20 00	Rough, ₰ M	$25 00
Rough refuse, ₰ M	16 00	Flooring and Step, ₰ M	37 50
Rough clear, ₰ M	32 50	Floorlng, narrow, ₰ M	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality, M	30 00
Rustic, ₰ M	25 00	Laths, ₰ M	4 00
Rustic refuse, ₰ M	24 00	Furring, ₰ lineal ft	1c
Surfaced, ₰ M	32 50	Rough, ₰ M	$25 00
Surfaced refuse, ₰ M	22 50	Rough refuse, ₰ M	20 00
Flooring, ₰ M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₰ M	20 00	Rough Pickets, ₰ M	18 00
Beaded flooring, ₰ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₰ M	30 00
Half-inch Siding, M	22 50	Siding, ₰ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, ₰ M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, ₰ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half-inch Battens, M	22 50	Rustic, ₰ M	42 50
Pickets, rough, ₰ M	14 00	Battens, ₰ lineal foot	1
Pickets, rough, p'ntd	16 00	Shingles ₰ M	3 50
Pickets, fancy, p'ntd	22 50		
Shingles, ₰ M	3 00		

San Francisco Metal Market.

PRICES FOR INVOICES.

Jobbing prices rule from ten to fifteen per cent. higher than the following quotations.

WEDNESDAY, May 7, 1873.

IRON.—		Braziers	— 35 @ — 38
Scotch Pig Iron, ₰ ton	$60 00 @ — —	Copper Tin'd	— 50 @ — —
White Pig, ₰ ton	60 00 @ — —	C. Niel's Pat	— 55 @ — —
Refined Bar, had assortment, ₰ lb	— — @ — 06	Sheathing, ₰ lb	— — @ — 29
Refined Bar, good assortment, ₰ lb	— — @ — 06½	Sheathing, Yellow	— 28 @ — 29
Boiler, No. 1 to 4	— 05½@ — 06	Sheathing, Old Yellow	— — @ — 12½
Plate, No. 5 to 9	— 06½@ — 07	Composition Nails	— 29 — 30
Sheet, No. 10 to 13	— 07½@ — —	Composition Bolts	— 29 — 30
Sheet, No. 14 to 20	— 08 @ — 08½	TIN PLATES.—	
Sheet, No. 24 to 27	— 08 @ — 09	Plates, Charcoal, IX ₰ box	14 50 @ 15 —
Horse Shoes, per keg	9 00 @ —	Plates, I C Charcoal	13 50 14 —
Nail Rod	11 @ —	Roofing Plates	13 00 13 50
Norway Iron	9 —	Banca Tin, Slabs, ₰ lb	— 40 — 42½
Rolled Iron	6½ —	STEEL.—English Cast, ₰ lb	— 20 — 25
Other Irons for Blacksmiths, Miners, etc.	6½@ 9½	Drill	20 — —
COPPER.—		Flat Bar	22 — —
		Plough Points	16 — 17
		Russia (for mould boards)	17 — 18
		ZINC	9½ — 10
		Zinc, Sheet	— 9 — 10
		NAILS—Assorted sizes	— 5¾@ — 9

San Francisco Retail Market Rates.

WEDNESDAY NOON, May 7, 1873.

FRUITS, VEGETABLES, ETC.

The supply of Apples is constantly declining. Pears are nearly out of market. Last week Cherries and Gooseberries appeared in the market, but they are coming in slowly. The Gooseberries are the earlier portion of the crop. The supply of Vegetables is good. String Beans are again in the market.

Apples, pr lb	8 @ 12½	Cucumbers, ea	— @ 25
Pears, per lb	12½@ —	Tomatoes, ₰ lb	— @ —
Apricots, ₰ lb	50 @ 62½	Green Peas	6 @ —
Pine Apples, each	50 @1 00	String Beans	20 @ 25
Bananas, ₰ doz	75 @1 00	Cress, ₰ doz bun	20 @ —
Cantaloupes	— @ —	Dried Herbs, ₰ lb	25 @ 35
Watermelons	— @ —	Garlic	8 @ 10
Cal. Walnuts, ₰ lb	— @ 20	Green Corn, doz.	20 @ 25
Cranberries, ₰ qr	— @1 00	Lettuce, ₰ doz.	25 @ 35
Strawberries, ₰ lb	10 @ 15	Mushrooms, ₰ lb	50 @ —
Raspberries, ₰ lb	— @ —	Horseradish, ₰ lb	20 @ 25
Gooseberries	15 @ —	Okra, dried, ₰ lb	— @ —
Cherries, ₰ lb	40 @1 00	do fresh, ₰ lb	— @ —
Oranges, ₰ doz	50 @ 75	Pumpkins, ₰ lb	2 @ 3
Limes, per doz	25 @ —	Parsnips, doz	20 @ 25
Figs, dried Cal.	12½@ 25	Parsley	15 @ 20
Figs, Smyrna, ₰ lb	25 @ 35	Pickles, ₰ gal	50 @ 75
Asparagus, ₰ lb	6 @ 8	Radishes, doz	— @ 20
Artichokes, doz.	3 @ 4	Summer Squash	15 @ —
Beets, ₰ doz	20 @ —	Marrowfat, do	2 @ 3
Potatoes, New ₰ lb	3 @ 5	Hubbard, do	2 @ 3
Potatoes, sweet, ₰	3 @ 5	Dry Lima, shl	10 @ 10
Broccoli, ₰ pc.	12½@ 15	Spinage, ₰ bskt.	25 @ —
Cauliflower, ₰	10 @ 15	Salsify, ₰ bunch	10 @ —
Cabbage, ₰ doz	75 @1 00	Turnips, ₰ doz	20 @ —
Carrots, ₰ doz	20 @ —	Rhubarb	8 @ —
Celery, ₰ doz	75 @ —		

POULTRY, GAME, FISH, MEATS, ETC

There is a large supply of Poultry this week, but very little sale for it. The supply of Hares and Rabbits is only medium. There is a moderate supply of Fish in the market, but they do not sell well, and are, therefore, cheap. Salmon Trout are worth from $1 to $1.25, and young Salmon, which are plentiful, are worth from 50 cents to 75 cents each. There have been more specimens of Shad caught.

Chickens, apiece	75@1 00	Choice D'field	20 @ —
Turkeys, ₰ lb	25 @ —	Whittaker's	18 @ 20
Mall. Canv. Bk, pr	— @1 00	Flounder, ₰ lb	15 @ 20
Tame, do	1 25 @ —	Salmon, ₰ lb	8 @ 10
Teal, ₰ doz	— @ —	Smoked, new, *	12½@ 15
Geese, wild, pair	1 00 @1 50	Pickled, ₰ lb	— @ 6
Tame, ₰ pair	4 00 @ —	Salmon bellies	75 @ —
Snipe, ₰ doz	1 50 @ —	Rock Cod, ₰ lb	12½@ —
Pigeons, dom. do	— @ 75	Cod Fish, dry, ₰ lb	12½@ —
Wild, do	3 00 @ —	Perch, s water, ₰ lb	10 @ —
Hares, each	37½@ —	Fresh water, ₰ lb	12½@ —
Rabbits, tame	25 @ 50	Lake Big. Trout	25 @ —
Wild, do, ₰ dz	2 00 @ —	Smelts, large ₰ lb	6 @ 8
Best, tend, ₰ lb	20 @ —	Herring, Sm'kd.	75 @ —
Corned, ₰ lb	10 @ 12½	Tomood, ₰ lb	— @ 12½
Smoked, ₰ lb	12½@ —	Terrapin, ₰ doz	3 00 @ —
Pork, rib, etc., ₰ lb	— @ 15	Mackerel, p'k, ea	12½@ —
Chops, do, ₰ lb	15 @ —	Fresh, do ₰ lb	6 @ —
Veal, ₰ lb	15 @ 20	Sea Bass, ₰ lb	4 @ 5
Ontlet, do	15 @ 20	Halibut	— @ 62½
Mutton chops, *	10 @ 15	Sturgeon, ₰ lb	4 @ 5
Leg, ₰ lb	12½@ 15	Oysters, ₰ 100	1 00 @ —
Lamb, ₰ lb	20 @ 25	Chesp. ₰ doz	75 @ —
Tongues, beef, ₰ l	1 00 @ —	Turbot	50 @ —
Tongues, pig, ₰ lb	10 @ —	Crabs ₰ doz	1 00 @ —
Bacon, Cal., ₰ lb	15 @ 18	Soft Shell	37½@ —
Hams, Cal, ₰ lb	15 @ 18	Shrimps	10 @ —
Hams, Cross' s o	— @ 20	Sardines	8 @ 10

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. pr ₰ lb	22 @ 30	Syrup, S F. Gol'n.	60 @ 65
Cheese, Cal

Nursery Notices.

Ornament Your Grounds.

DO YOU WISH A COLLECTION OF

CONIFERA OF ACACIAS, EUCALYPTUS,

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Ornamental Shrubs?

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Vine Hill and Sugar Loaf Vineyards.

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205 ACRES OF GOOD LEVEL LAND, NEW HOUSE AND OUT BUILDINGS.

Young Orchard. Sixty acres in Grain. Good Fences and plenty of Timber. Located within one mile of a thriving town in Lake county. Price $6,500.

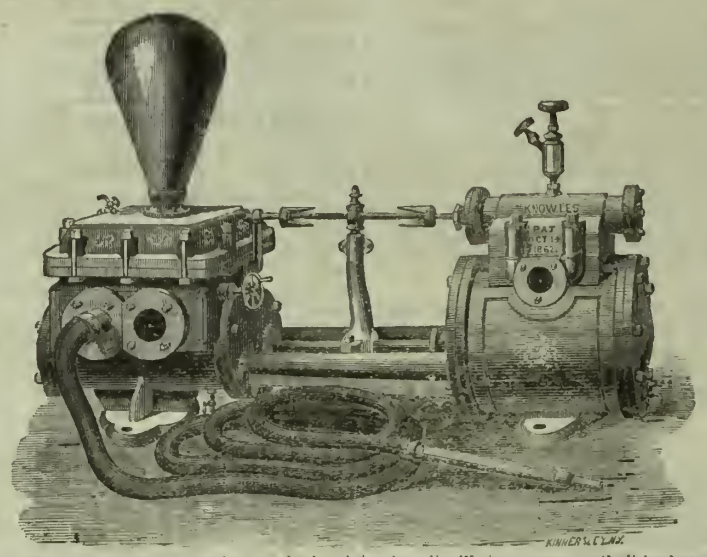
P. H. SUMNER,

ap12tf No. 6 Montgomery street, S. F.

Los Angeles County Lands.

Farming Lands in Los Angeles County for sale, in sections and quarter sections, at reasonable prices and on accommodating terms—say, one-fourth cash and balance in one, two and three years, with interest at 10 per cent., payable annually. Apply at the office of the Company, No. 542, corner Market and Montgomery streets, over the Hibernia Bank, San Francisco, or to the agent, W. R. OLDEN, Anaheim. 12v3tf

KNOWLES' PATENT STEAM PUMP.



It has no Cranks or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a startiug-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R., OFFICE OF THE GEN'L MASTER MECHANIC, SACRAMENTO, Cal., January 14, 1873.

A. L. FISH, Esq., Agent of the Knowles Steam Pump, San Francisco—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump, in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other. Yours truly, A. J. STEVENS, General Master Mechanic.

U. S. NAVY YARD, NEW YORK, June 3, 1871.

MESSRS. KNOWLES & SIBLEY, 92 and 94 Liberty street, New York—Gentlemen: In reply to your note of 31st, requesting my opinion of your Steam Pump, etc., as suggested from my experience with them in actual service, I have to state that I have used your pumps, and entertain the most favorable opinion of their great merit and usefulness, and for every purpose believe them to be superior to any others, and have so recommended and adopted them. They have given complete satisfaction in all cases that have come under my observation.

Yours very respectfully, WM. W. W. WOOD.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiries, we state that the highest award for Steam Pumps at the Eighth or last Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to the Knowles Patent Steam Pump, as published in the Official List September 23d, 1871.

A. S. HALLIDIE, President Board of Managers.

W. H. WILLIAMS, Sec'y Board of Managers Eighth Industrial Exhibition, M. I.

WE BUILD AND HAVE CONSTANTLY ON HAND

The Largest Stock of Pumps in the World,

And for Every Conceivable Purpose.

THE CELEBRATED BOOMER PRESS,

For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

A. L. FISH, Agent,

Nos. 9 and 11 First Street, San Francisco, Cal.

P. S. All kinds of new and second-hand Machines on hand. 10v26 lambp

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THE HORTICULTURAL SPRING EXHIBITION

OF THE

Bay District Horticultural Society

WILL OPEN ON MAY 8th, 1873, AND CONTINUE FOR NINE DAYS,

—AT—

Horticultural Hall,

Corner of Post and Stockton Streets,.....SAN FRANCISCO.

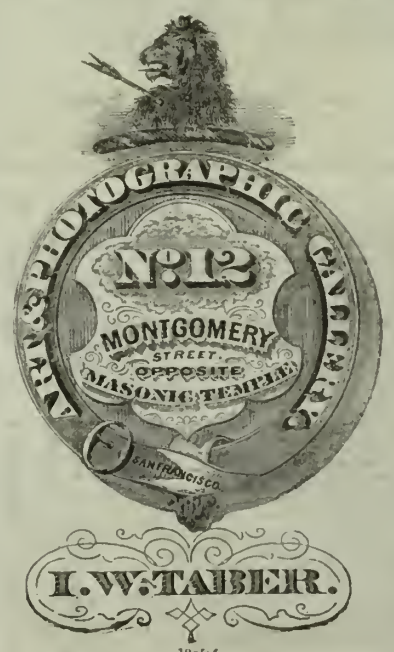
This will be chiefly a Floral Exhibition However, all Horticultural products will be received.

Amateurs are earnestly invited to contribute and compete for special prizes offered.

For particulars inquire of the Secretary,

F. A. MILLER,

ap12-4t No. 622 Clay Street, San Francisco.



12v5-f

WILCOX'S

IMPROVED STEAM WATER LIFTER,

With neither Engine, Piston, or Plunger.



The most Simple, Durable, and in all respects the most ECONOMICAL of all Steam Pumps. Uses the same steam twice instead of once. Any person can run it. They are used on the Central and Western Pacific R. R. from Oakland to Ogden. They are used for Water Works, Mining, Irrigation, and all other ordinary pumping. Send for Descriptive Circular and Price List. Address ALLEN WILCOX, No. 21 Fremont street, San Francisco. 16v2-3m

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JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, SAN FRANCISCO. 21v2-1y



Strawberry Baskets—The Best Yet Out.

A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of basket. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into paper bags. SWAN & CO. are ready to make 20,000 per day.

UNION BOX FACTORY,

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Our Seedsmen.

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Wholesale or Retail.

Vegetable, Field and Flower Seeds,

California and Australian Evergreen Seeds.

FRESH SEEDS OF PALMS AND BLUE GUM TREES, Etc., Etc.

Pure KENTUCKY BLUE GRASS, RED TOP, RYE GRASSES, ORCHARD GRASS, TIMOTHY, ALFALFA, WHITE, AND RED CLOVER SEED,

Mesquit Grass Seed.

Hyacinths, Tulips, Crocus, Lilies, fine clumps of Lily of the Valley, new Gladiolus, Etc.

Ramie Seed and Plants.

A FINE COLLECTION OF

Greenhouse Plants, Evergreens, Etc.

RUSTIC AND WIRE BASKETS, FLOWER STANDS, FRUIT AND ORNAMENTAL TREES, ETC.,

AT THE OLD STAND.

Send for Catalogues. E. E. MOORE,

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SEEDS—1873—FRUIT.

A. H. CUMMINGS & CO.,

30 and 32 J Street, · Sacramento.

GARDEN AND FLOWER SEEDS,
FRUIT TREES AND SHRUBS,
CLOVER AND GRASS SEEDS.

Seeds forwarded by mail if desired.

All kinds of FRUIT AND NUTS, also HONEY, constantly on hand and for sale at lowest market rates.

Large invoices of Eastern and European Garden and Flower Seeds, just received.

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Saw Manufacturing Company,

NOS. 17 AND 19 FRONT ST., SAN FRANCISCO.



REAPER AND MOWING SECTIONS,

Planing Knives, Curriers' Knives,

SAW MANDRELS AND SAWS OF EVERY DESCRIPTION MADE TO ORDER.

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SACRAMENTO AND SAN FRANCISCO,

Importers of

HARDWARE,

Agricultural Implements, Harvesting Machinery, etc.

Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

Haines' Genuine Headers, Bain's Header Wagons, Bain's Farm Wagons.

The celebrated PITTS IMPROVED THRASHERS and Horse Powers.

Portable Steam Thrashing Engines.

Hand and Horse Power Hay Presses.

Lock Levers; Hollingsworth and Whitcomb's Wheeled Hay Rakes.

Wood's Revolving Horse Rakes.

Hand Rakes, Scythes, Snaths, Forks, Shovels, Baling and Fencing Wire, Rope, Nails, Belting, Machine Oils, etc. A full stock of SHELF HARDWARE.

EXTRA PARTS for repairing Harvesting Machinery.

Orders by Mail or Express will receive prompt attention. Send for Circular. Address

BAKER & HAMILTON,

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AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

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Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,

And a fresh stock of

HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

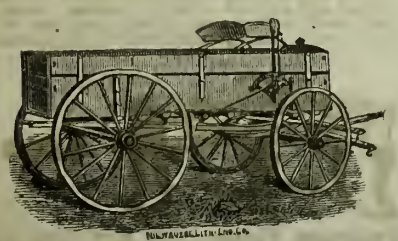


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,

being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,

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BONNEY'S

PATENT EXTENSION TOOTHED HAY RAKE.



Saves more and better Hay than any other Rake in use, being free from dirt and dust. Holds twice the amount, as the teeth can be used any length. Runs light and is easily handled.

FIRST PREMIUM AT STATE FAIR, SACRAMENTO.

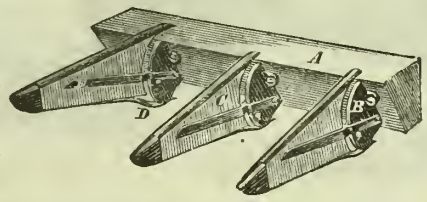
Manufactures also the old Stationary

Wood-Toothed Rake,

(Improved,) which I sell cheaper than any other Wheel Rake. Also my

Patent Adjustable Grain Lifter,

For Header, which can be run at any inclination, as seen at D in cut; can be attached to Header in 15 minutes; is the cheapest in use and gives the best satisfaction.



Parties can save additional the cost of a set in one day's cutting. Make to order also, HEADER APRONS and GRAIN BELTS of all kinds. All orders or enquiries to

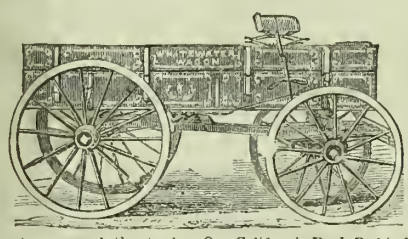
O. BONNEY, Jr., 221 Mission Street, San Francisco,

Promptly attended to. 12v5-1am

THE WHITEWATER WAGON.

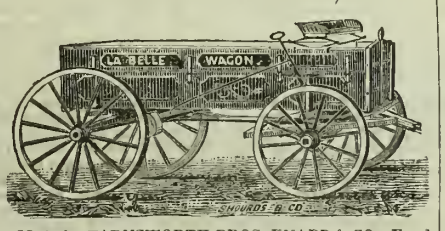
PRICES.—Thimble Skein, 3 inch, $100; 3⅛ inch, $105; 3⅜ inch, $110; 3¼ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $1 30 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 osk; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



AGENCY FOR THE SALE OF THE

LA BELLE WAGON,



Made by FARNSWORTH BROS. KNAPP & CO., Fond du Lac, Wis. These Wagons are made of the BEST TIMBER, thoroughly seasoned in a dry-house; the Felloes are boiled in oil and rivited. Special care is taken to get up a Wagon well proportioned, strongly ironed, nicely painted, expressly adapted to the climate of California, and one that will give entire satisfaction to the purchaser, and justify him in recommending it to others. We warrant them to stand any fair usage for one year, without expense to the buyer. Orders from the country will receive prompt attention. Wagons delivered free of expense in this city. A liberal discount will be made to Wagon-makers, Merchants and others who buy to sell. Price Lists sent on application.

MEEKER, JAMES & CO.,

S. E. Cor. California and Davis streets, San Francisco.

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ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

HAS A DOUBLE MOTION,

Giving FAST OR SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

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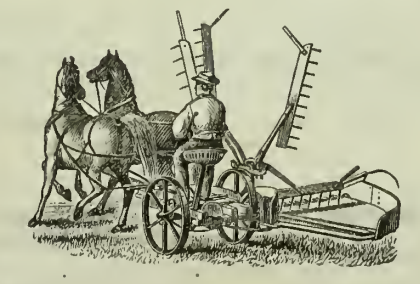
Sole Agents Pacific States San Francisco.

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For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,

BUCKEYE REAPER,

BUCKEYE SELF-RAKE REAPERS,

HAINES' GENUINE HEADER,

VIBRATOR SEPARATOR

(Manufactured by Nichols, Shepard & Co.),

MOUNTED HORSE-POWERS,

TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,

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WANTED.

Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. CHAS. F. BECHERER & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v5-3m

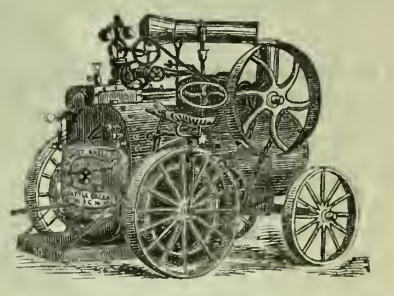
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43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.

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CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

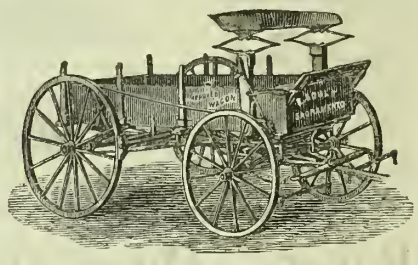
THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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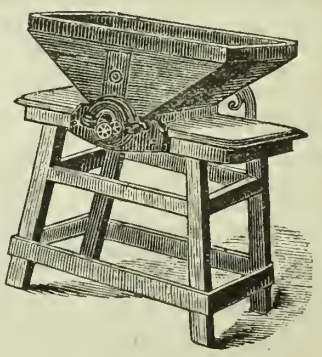


FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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THE CELEBRATED CHALLENGE FEED MILL



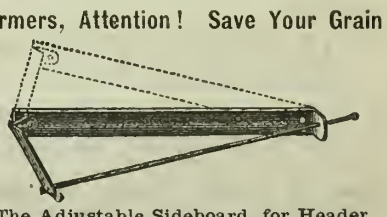
For Farm use and Custom work. The only Practical Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of barley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

M. S. BOWDISH, General Agent,

With Hawley & Co., cor. California and Battery sts.,

8v26-2am San Francisco.

Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.

Orders solicited. Address WM. S. MURPHY,

N. E. cor. Drumm and California sts., S. F.

JAS. T. ISH, Proprietor. 13v5cow tf

FARMERS, ATTENTION!

Sacks! Sacks! Sacks!

All farmers wishing to secure cheap and durable Grain Sacks will find it to their interest to call on us before going elsewhere.

KOHLER, McDOUGALL & CO.,

Bag Makers, 221 Davis st., one door south of Clay,

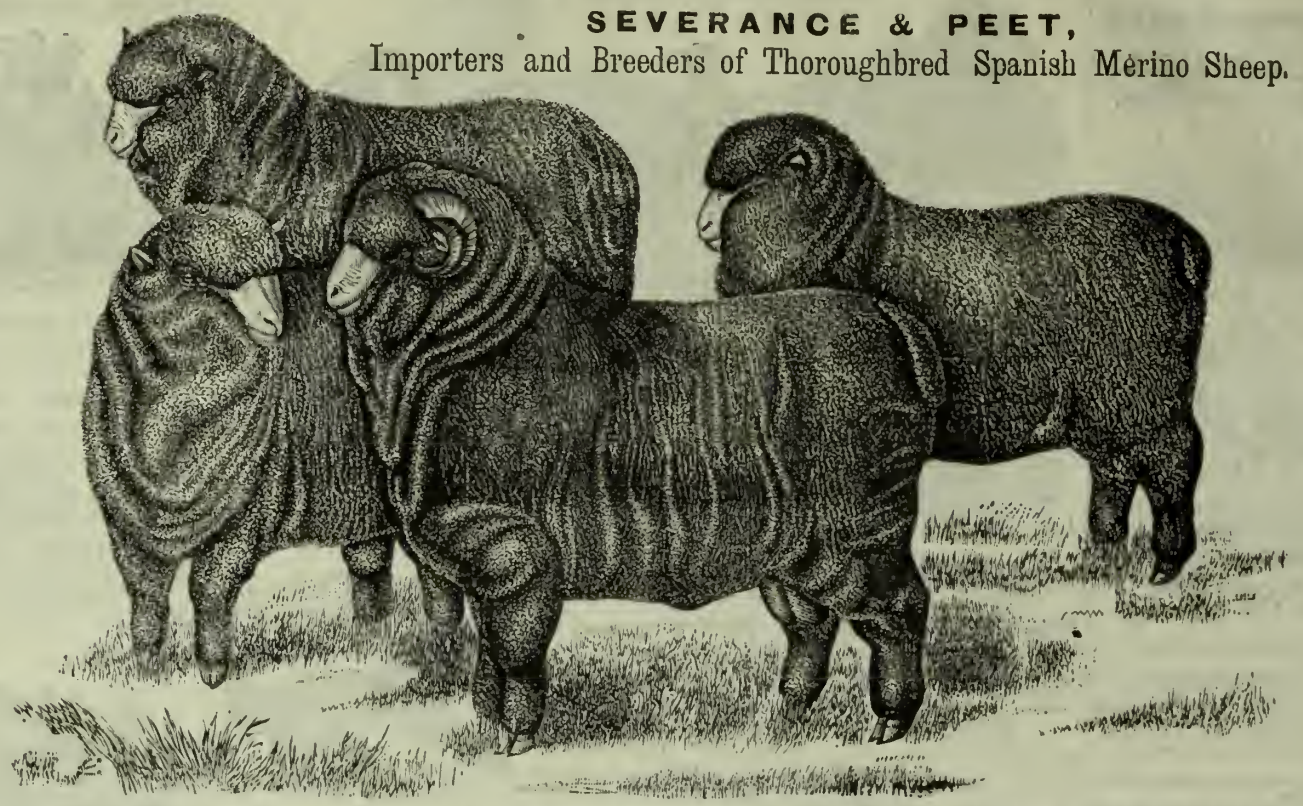
15v5-3m San Francisco.

MERINO RANCH, Niles Station.

Alameda County, California.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Buyers' Directory.

Under this heed will be found the names and address of soms of our most enterprising and reliable business men.

J. Ivancovich & Co., Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. Nos. 520 and 522 Sansome street, San Francisco. All orders promptly attended to.

G. Onesti & Co., Commission Merchants and Importers of Domestic and Foreign Fruits, etc. Vegetables, Fruit, Eggs, Poultry, Cheese, Butter and Grain sold on commission. 501 Sansome st., N. W. corner Clay.

Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Niantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Rnss House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom made Clothing and Furnishing Goods; also trunks, Valises, Bags, etc.

Luke G Sresovich & Co., Importers, Wholesale Dealers and Commission Merchants in Foreign and Domestic Fruits. 519 Sansome street, S. F. All orders promptly attended to.

A. Giorgiani, Importer and Dealer in Tropical and Dry Fruits; also California Wines, Bay Salt, and Lime Juice in ten-gallon kegs. Nos. 419 and 421 Washington street, San Francisco.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

Jacob Schreiber, Dealer in Live Geese Feathers, Furniture Springs, Curled Hair, etc. The Cheapest House in the northern part of the city. No. 520 Washington street, San Francisco.

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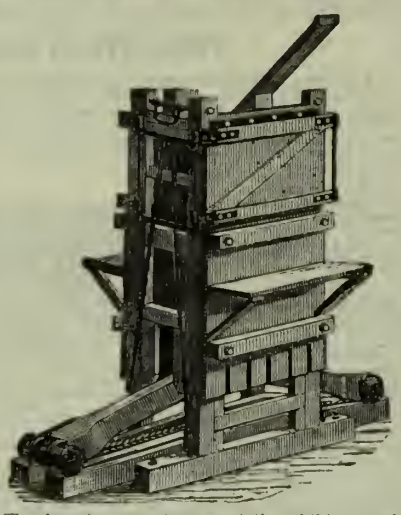
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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MAY 17, 1873. [Number 20.

Brookes' Still-Life Paintings.

We present to the readers of the PRESS this issue an illustration representing one of those admirable still-life pictures by a noted California artist, Samuel M. Brookes, and which have gained for him more than a local celebrity. The original from which the cut was made is in the possession of Mrs. T. O. Larkin, and is 32x40 in size. The painting represents codfish suspended from a hook in the wall, with their tails hanging over in front of the stone; a crawfish, some vegetables, wine and a Lake Tahoe trout. Of course an engraving can not be expected to do full justice to objects which depend upon their color for their excellence, and paintings especially must be seen to be properly appreciated. Nevertheless the cut will give our readers who have not the opportunity of seeing the original, a good idea, not only of the character of Mr. Brookes' specialty, but of this painting in particulsr, which is much admired.

A salient point in the fish pictures of this artist, leaving aside entirely the absolutely life-like, or rather death-like, perfection of color and accuracy of detail, is the peculiar happy manner in which the supple, pliant figure of a fish just dead, yet still possessing its natural contour, is depicted. The Lake Tahoe trout in the foreground is an illustration of this point. It looks as if it had, after a few useless struggles, given up its life quietly, and remains in the position which it died. In pictures with the characteristics of the one shown, Brookes has no superior, anywhere, and indeed the field is one in which few opponents dare to challenge. To catch the changing colors of a trout, shining fresh from its native element, needs a quick eye and an accurate memory, as well as skill with the brush and knowledge of the art. The Brookes' pictures are truthful portrayals of his subjects is evident at a glance at any one of them.

His forte is particularly "still-life," on which he is excelled by no one on this coast. His pictures are easily recognizable in any collection by those who have ever seen one of them before.



STILL-LIFE—BY S. M. BROOKES.

The Horticultural Exhibition.

Every one visiting it is delighted with the floral exhibition now—Thursday, May 15th—in progress at the hall of the Bay District Horticultural Society, corner of Post and Stockton streets. To say that it is a magnificent floral display well worthy the attention of the public, is to convey but a faint idea of its real merit. Here the connoiseur and amateur of beautiful flowers, can find him or herself in the midst of a profusion of the most rare and exqusite floral gems known to flower culturists.

Not only an hour, but a day can be well and interestingly passed in examining into the varieties and beauties of this miniature flower world. And then at evening, the keen and spirited rivalry between these mute beauties and the vocal ones, that seem to be vieing with them for supremacy, with the blaze of innumerable gas lights and the refrain of voluptuous music, together make up a scene that no one with the least spark of love for the beautiful or taste for the exquisite should fail to witness.

Summer Fallowing for Wheat.

The present season, with its lack of spring rains, is conclusive that we cannot rely with certainty upon late winter and early spring sown grains. The fact too that nearly every field, perhaps without exception, in which the wheat was sown in the dust—as it is termed—or upon summer-fallowed land, gives promise of an abundant yield with or without the usual late rains, is convincing as to the propriety of some description of summer fallow. We say some description, because at the East summer fallowing is practised especially for two purposes, one to give the land rest and a thorough pulverization, and the other for a more complete destruction of weeds than can possibly be done if cultivated with any grain crop.

In California we summer fallow for the purpose of preparing the land for an early sowing of the grain, in the dust, and before the first rains of autumn even, if these rains are tardy in their coming. So that our fallowing is more properly, early plowing for wheat. Much then might be said upon the theory and practise of summer fallowing for wheat in California. On all fallowed ground at the East, it is common to plow the same immediately before seeding, here we do not; but sow directly upon the spring or early summer plowed ground without further preparation.

Experiments and observation during the last year have demonstrated that land can be plowed too late and too deeply for wheat to succeed well in, without abundant late rains. Lands that receive a deep, spring or early summer plowing and pulverizing, become to some extent compacted before the seeding season. Such lands with only the necessary harrowings for putting in the seed have invariably brought better crops than the same land turned equally deep before seeding.

There is an old, English wheat grower's maxim, which is this, "wheat always delights to grow upon a firm bottom." California experience is proving this; land in the process of cultivation with a rotation of crops should be plowed deeply; but when the same land is prepared for wheat, care should be taken that the greater depth of former plowings be allowed a degree or solidity greater than for any other crop, whilst the immediate surface of only three or four inches should be made as fine and friable as possible, for the reception of the seed, and then this surface even is better rolled than not rolled, as it forwards the germination of the wheat by several days.

There is yet much to learn on the subject of moisture in soils, and the best mode of husbanding its effects, the better to subserve the interests of agriculture, which we may discuss hereafter. At present we would recommend to the wheat culturist the preparation of all the land intended for next year's crop, by a present plowing, continued as far into summer as the condition of the soil will admit. Of course this practise is not advised for alluviums or reclaimed tule lands, that can be plowed at any season, but for the vast area of plain and dry valley land available only or nearly so, for the production of wheat.

NATIONAL AGRICULTURAL CONGRESS. — The next, which will be the second meeting of the National Agricultural Congress, will be held at Indianapolis, Indiana, commencing on Wednesday, May 28th, 1873. The necessary local arrangements for the occasion, it is now understood, will be ample and complete. Complimentary ticket of invitation received.

The City Milk Trade.

The milk trade of the city of San Francisco is rapidly increasing, and altogether too fast for the increase in the number of cows. The question is asked us by an Eastern man, long engaged in furnishing milk for the City of Baltimore, as to whether patronage could be secured sufficient to warrant the establishing of an additional milkery upon a scale of five hundred cows as a starter, to be increased as the quality of the milk furnished becomes known and appreciated.

It is the intention of the gentleman to whom allusion is made and who is the agent of the company he represents, to transport direct from the East their entire stock of cows, and then upon one of the reclaimed islands of the Sacramento and San Joaquin delta, establish his milkery and feed to a large extent successive crops of green cornstalks and clovers, to be soiled out to them with the addition of the necessary amount of more concentrated and nourishing food. Having made himself master of his business by experiments with different animal foods with a view of ascertaining their relative value for the production of the most and richest milk, through a series of years, he enters upon the business, as one—to him—no longer an experiment.

The only question being the extent of the demand for pure unadulterated milk. He does not intend to establish a dairy, for butter and cheese, but simply a milkery for the supply of fresh milk and cream for the city, and dessicated or concentrated milk for city and interior country use, and for commerce or use upon the ocean. It is proposed to put the price of pure milk below present rates, which can be done profitably, and in case those who now furnish the milk-and-water for the city come below what his is worth for desiccation they can have the field, if the public choose to patronize them.

When they increase the price upon their customers, the new firm will undersell them because they can afford it. Thus in one instance at least does it appear that a large establishment or monopoly, if you please to call it so, will work a benefit, at least to the consumers of milk in San Francisco, whilst paying a large per cent upon the investment.

MORE RAIN.—We are getting cloudy weather again, the last three days showing indications of approaching rain; this is under date of writing, May 12th; but though a good deal of benefit might result to certain crops, or rather to crops in a certain condition, still it would come too late to perfect a considerable part of the wheat acreage. Doubtless if we estimate our wheat surplus finally harvested, at two-thirds of the January estimate, we shall not be far out of the way. We shall expect 25,000,000 bushels as the resulting wheat crop of California for 1873.

CAN'T KEEP HOUSE WITHOUT IT.—This is what a lady correspondent of Hamilton, Nev., says of the RURAL PRESS. Her communication will receive attention next week.

THERE is a firm in St. Louis now building a machine which is designed to cut and take up grain, and at the same time to plow and seed the ground.

CORRESPONDENCE.

Epizooty or Epizootic.

EDITORS PRESS:—Pardon the temerity of a cow-county farmer in presuming to differ from you on a question of etymology. Your persistent use of epizooty, instead of the more prevalent word epizootic, has something of the exciting effect on my nerves that a red rag is supposed to have on a mad bull; and to the writer of your justification in April 26th, R. P., I feel inclined to apply the term with which the pedant non-plussed the abusive Billingsgate fish-wife, and call him a "non-sequitur." I suppose when he reads my argument he'll retort, "you're another," but my consolation is that two "non-sequiturs" don't make logic.

To complete his argument a person who is rheumatic suffers from the rheumaty, and not from the rheumatism.

I argue for "tic" in place of "ty," because the epizootic is analogous to an epidemic or epidermic, only instead of being a disease on the people it is on the horses and so is classed as an epizootic, or upon animals. But as an epizootic would be a disease common to any live creature, I propose to distinguish this as the "epihippic," or horse disease; in the same way a cattle plague should be an epiboic.

Possibly some reader is already disgusted at so much talk over grammar, and feels disposed to say after the manner of Rome, "Hang up" etymology unless etymology will turn this dry season into a raining one. Well, my friend, that's just what I am going to do—but—why did you not sow your grain earlier?

It seems to me that speaking generally we Californians are slow to learn that partially dry seasons are the rule, rather than exception in our pleasant clime; and that most years when May comes round it is the early-sown grain that carries off the palm. There are seasons when it grows too rank and would be sure to lodge before harvest unless attended to, but how much more easy for a farmer to run his reaper over the too luxuriant growth in the Spring, than to cause even half a growth of his spindling crop of late grown wheat in a dry season.

Sowing early, on moist soils, one may ensure a crop of hay at least, and almost certainly a fair yield of grain. Less seed is required per acre, as during the winter the grain stools out, instead of running up a seed stalk at once, as when late sown it is likely to do. I practice what I speak, and have for my reward one five-acre patch of barley that will average four feet high and in places is full five feet. Seed was sown on land from which a crop of pumpkins had been taken and harrowed in before the first rains. Some 25 acres plowed and sown in light land January and February will make a two-thirds crop without more rain, while a small late sown patch of winter rye and white oats from Agricultural Department of United States seeds were pretty nearly "fizzled out" before these last showers.

I wanted to write you a disquisition on a more important subject, but my time is so pre-occupied that I must defer it for the present. EDWARD BERWICK.

Carmel Valley, May 3d, 1873.

OUR AUTHORITY.—The monthly report for the Department of Agriculture for January, in speaking of the condition of farm animals throughout the States, says of the horses of the State of Pennsylvania, that in Snyder very few horses escaped the epizooty, and very few died with it. Cambria: Only such horses as were worked or unnecessarily exposed died of the epizooty. Horses kept warm and clean, not worked or exposed, with light feed, such as bran and boiled oats, with little hay, were successfully treated. Dauphin: Deaths of horses from a dropsical affection, following the epizooty, are of frequent occurrence. The most effectual remedy has been turpentine applied to the throat and top of the head. Butler: The epizooty caused but little damage; hardly a dozen horses died with it; all appear well again. Lycoming: A few horses have died of the epizooty, but in nearly every instance the loss can be traced either to improper usage or to the effect of some other disease previously contracted. Chester: About 3 per cent. of our horses died of the epizooty. Elk: Not many fatal cases from the epizooty, and those, for the most part, of horses that had been affected by some other disease. Bucks: Loss of horses by the epizooty not more than one-half of one per cent., etc.

But since our correspondent has taken hold of the "logic" of the matter, we "set the thing up" in this wise—Pleurisy is a noun and so is Epizooty; men and horses are therefore sometimes affected with these nouns. There are therefor pleuritic men and epizootic horses; both are adjectives qualifying their respective nouns, men and horses; but if you make a noun of epizootic, where will you get your adjective? You would say a horse having the disease, that he is—well what? give us your adjective.

Solano.

EDITORS RURAL PRESS:—Some of your numerous readers may desire to hear from the far-famed Solano, as to ourselves we confess to a weakness of loving to hear of the progress of our own county. While we most thankfully and eagerly peruse the "Wayside Growths," "Wayside Chat," the Notes from Alameda, Facts from Stanislans and Letters from Los Augeles, we most heartily welcome the tidings of advancement, the practical experiments, and the working of farmers' clubs from all parts of the State. You are already aware that we have a great diversity of soil and climate, from the rolling and steep hills of the Montezumas on the south, to the flat and adobe lands of the arid plains to the rising and rich alluvial of Dixon stretching north to the banks of—not Nile,—but to the far-famed Putah Creek, where hundreds, yes, thousands of acres produced over one ton of wheat to the acre last year.

In the northwest corner of the county, under or at the foothills of the range that divides Solano and Napa, is as fine a climate as can be found perhaps in the State; and here we are proud to note the first ripe cherries of the season, already in your market, while the oranges were sent in long ago. Here grows the northern apple side by side with the tropical orange, olive, fig and pomegranate with walnuts, almonds, grapes and other varieties of choice fruits and nuts too numerous to mention. But wheat is the all-absorbing topic; this is decidedly a wheat county with many large wheat ranches ranging from 500 to 1,000 acres of wheat per year, interspersed with many of lesser note but none the less prosperous of from one quarter section to a section. Notwithstanding the lack of usual spring rain the summer fallowed wheat looks well everywhere.

In and about Fairfield and Suisun valley grain seems generally backward; this may be accounted for from the fact that much of last year's sowing in March and April yielded one ton to the acre. Rio Vista and surroundings, with the Montezumas, will reap an abundant harvest on the fallowed land. Very much of the winter sowing is stunted, weedy and sickly; the ground being very mellow, the rains caused it to pack and bake quite too hard for the tender plant to grow. The contrast was never greater than this season; the fallowed ground being tall, strong, thick and healthy, while the winter sowing is short, thin, and sickly, having the appearance of having had the ague for the month past.

The Egyptian wheat, of which I sent you a sample and of which you noticed in RURAL PRESS, June 22, 1872, page 393, yielded 75 pounds to one of sowing. This season's crop of the same kind is looking fine. Hay will be light, but of good quality; this week there will be a grand rush for the hay fields. Some early barley will be harvested this month.

R. H. BARKWAY.

Denverton, May 5th, 1873.

From Idaho.

EDS. PRESS:—The following questions were propounded to me from Mr. John Gordon of Mt. Idaho, Nezperces county, I. T. How long does it take the Osage Orange to make a hedge that will turn stock? how much seed will it require to go around a quarter section, and what will the seed cost? What will an auger cost for boring post holes? what will Black Locust seed cost, and can it be obtained in the city? Will alfalfa do well on a soil adapted to timothy, its yield, qualities, price for seed, etc.? Is Osage Orange the best for hedges? JNO. MAVITY.

A good hedge that will turn bulls or boys, can be grown in four years. The plants should, for convenience, be grown one year in a nursery, then transplanted and set in the hedge row 15 or 18 inches apart, from which it is easy to arrive at the number of plants required to go around a quarter section of land. The seed of the Osage Orange are selling at one dollar a pound. The seed of the black locust $1.50 a pound; and alfalfa from 20 to 25 cents a pound; on all of which some deduction would be made on a larger order. The cost of a post-hole auger will be $4.

Alfalfa will do well where timothy will, except in the matter of frost; it will not stand severe freezing. Yield from 3 to 6 tons of dry hay per acre. Osage Orange makes an excellent hedge but will not stand severe frosts.

Strange Horse Disease.

EDS. RURAL PRESS:—While the epizooty is prevailing pretty generally throughout the State, and the word epizooty is so common that when two neighbors meet it is, "How are your horses," or "How is the epizooty," and even the little ones are applying the term epizooty to everything that they hear cough, I thought it would be a favorable time to draw out something through the PRESS in regard to a disease affecting horses in these parts commonly called the crazy disease. Perhaps this is not the correct name, but every one will know what is meant by the term. Now this disease, if disease it is, is far more alarming and serious in its consequences than the epizooty, for an animal once attacked with it, either dies or is rendered entirely useless for life. Horses are attacked with this disease generally in the summer and fall.

The symptoms are these: If the horse is at pasture he will leave the band and go by himself; is very foolish about his head, won't allow you to put your hand on it; put a halter on him and try to lead him he will rear up, fall back and act as though he had never had a halter on before; and has a great aversion to stepping over anything on the ground, and goes with his head inclined toward the earth, and drags his feet along and seems afraid of every object he sees.

He falls off rapidly in flesh, and soon after taking the disease becomes very poor. I have known them to go up on some high point in the mountains, and stay there until they died. The time of year for horses to take this disease is close at hand, and if there is any remedy or preventive, it is desirable that every one interested should know it. I have been a reader of the RURAL for two years; have never seen any mention of this disease; have lost twelve valuable horses in the last three years with it, and others in these parts have been greater sufferers than myself. Now this is my apology for this trespassing upon your time and patience.

Bear Valley, May 2d, 1873.

We would like to hear from other localities in relation to this disease if known to prevail, and whether there is any known remedy or preventive.

The Malva.

EDITORS RURAL PRESS:—Having seen much in regard to the "Malva Tree," I write you for information in relation to the same. I am told by several parties that the Malva and the Malvern, or Malvern Geranium as it is sometimes called, are one and the same; is such the case? If not, please tell me through your columns where the seed of the Malva can be procured. What is the cost per lb.,

Linden, San Joaquin Co. A. O. D.

The Malva and the Malvern Geranium are entirely distinct. The former grows to the dimensions of a tree 12 or 15 feet in hight and a body often 6 or 8 inches in diameter. It has a wide—spreading top, with large leaves of which all cattle are very fond. We endeavored to say enough in our last year's volume to indnce the saving of the seed, by those having the full grown bush or trees, that the demand this year might be supplied; but it did not avail and now the price of seeds of Malva is 25 cents per ounce, having advanced from 10 cents to 25 cents since January.

TO SET DELICATE BLUE.—One table-spoonful of spirits of turpentine in a basin, on which pour boiling water, let cool enough to put in the garment; a few washings after makes the color permanent. Another simple and very useful remedy is, if mutton tallow is rubbed on fresh grass stains, they can be removed in the washing.

DEAR RURAL, I am a constant reader of your excellent paper and when we are through with it, it goes to my nephew in Missouri, who wrote me the other day, saying he and his father thought it the best agricultural paper they had ever seen. I send the turpentine recipe, knowing it will be much easier for families to use than to get the beef's gall. S. O.

LOCALITY OF MODESTO.—EDS. PRESS:—In my communication of April 15th, giving a description of the locality of Modesto, I committed an error, in stating that the town was located on the east side of the railroad. It should have been *on* the railroad. I merely committed an inadvertency without any thought, or the least intent of doing injustice to the west side of the track, as the town is located on both sides of the railroad. C. C. LUTHER.

On Extracted Honey and the Proper Manner to put it up for Sale.

The use of movable comb hives and honey extractors, and the consequent increased supply of honey, has brought into existence new industries, such as the manufacture of glass honey-jars, corks, labels, tinfoil caps, etc., for putting honey in saleable shape, or packing it for transportation.

The best shaped honey jars, in my estimation, both for sale and for packing with the least waste space, are square jars, containing one or two pounds of honey.

After the jar is corked, press a tinfoil cap over the cord and neck of the bottle with your hand first, and then finish with a leather strap about five-eighths of an inch wide and four feet long, one end of it fastened to the wall. The strap should be wrapped once around the neck of the bottle, and while one end is held tight by one hand the bottle should be passed forward and backward until the tinfoil is properly smoothed down. For my own use I have made a "horse," so I can sit down to the work of capping my jars, keeping the strap tight with one foot, and using both hands on the jar.

For shipping, jars should be packed tight with saw-dust, and one dozen in a box especially made for the purpose. A bee keeper should sell by the gross his one or two pound jars of honey to merchants in the country or city, or have it sold on commission until his brand is known. With his lable on jars and his brand on boxes, he will soon find a market if he bottles a choice article only. Good honey put up neatly and in small quantities will always bring the best price, and it is my experience that *machine extracted* honey is the preferred article if the consumer is once convinced of its purity.

A manufactured article of Cuba honey finds a ready market in our cities, because it is put up in merchantable shape, i. e. in jars, nicely labled and styled "White Clover Honey." Now, I claim that the sale of manufactured article would not be possible if our bee-keepers would only take the necessary pains to bring into market, in proper shape and under their own names, their *machine extracted* honey, which is the only pure honey possible and if once known to consumers will be the only honey in demand.—*Cor. American Bee Journal.*

Westward, Ho!

Immigration by Rail.

Much has been said regarding the railway system of California, which although in its infancy will at the present time compare favorably with any of the old established roads in the East or West. Yet after an examination of the railroad map we find that three-fourths of the Golden State is nutraversed by that untiring promoter of its public progress. To show what has been done in this way, we have carefully prepared from the books of the Central Pacific Railroad Co., an interesting table, showing the number of through passengers, East and West, over that Company's road for the past fifteen months. This will make apparent to the obtusest intellect how the tide of immigration has turned toward the shores of the Pacific. The iron horse is daily and hourly arriving with its load of living freight, bringing to this far-famed land of mineral and agricultural wealth, hundreds and thousands of poor but honest-working men with their families, who come with the intention of finding for themselves a home. They are farmers, they want to settle upon and improve our lands. What lands are most likely to be improved first? Those in some wild region, far-distant from a market or cheap method of transportation? No; the first selections will be made along the line of the railroad. At present our railroad communication is limited; but the time is not far distant when under the present potent management the Central Pacific Company's lines will penetrate our forests, span our broadest rivers, and cross our loftiest mountain ranges, covering this Coast with a perfect network of railroads. Population and wealth will follow in its wake. Towns and cities spring up, valley and plain be clad in a luxuriant robe of waving grain, and our now thinly populated State will throng with its millions. In fifteen months 16,611 people have been added to our population by this agency. And the increase in the first months of this year over the same months last year is more than fifty per cent. We have already acquired the right to claim the reputation of being a railroad people. The principal lines in this State are: The Central Pacific, California Pacific, California and Oregon, San Joaquin Valley, North Pacific and Humboldt, Southern Pacific, Stockton and Copperopolis, besides numerous other small roads equally beneficial. The total length of these various lines is 1,480 miles all of which are connected with branches of and under the management of the Central Pacific Railroad Company.

THE practical application of chemical knowledge to the needs of every-day life is as simple as it is beautiful. Thus, he who knows the reactions of different substances upon each other will refrain from drinking strong nitric acid too soon after eating sugar lest he be poisoned by oxalic acid, which is formed by the admixture of those two substances, while those who are ignorant of this fact may easily pay the penalty of their imprudence.

Home and Farm.

Wayside Chat.

[By Mary Mountain.]

One look at the swollen, turbid Stanislaus, brought up a throng of bygones; vivid remembrances of the terrible river at flood-tide, of the puny, insignificant stream, when summer drouth had nearly drank it all up.

Rivers, mountains and the eternal hills are always ready with a familiar look for the returning wanderer, and can be fully depended upon to stay, as they were, except here in the mining region. One summer's work of a set of resolute fellows will easily change the course of a stream, mutilate the face of a hill, trim the mountain with flumes and ditches, and toss the smooth valley into such rugged heaps and mounds as will resist for centuries the smoothing influence of Nature's forces.

Riding toward Knights Ferry along the banks of the Stanislaus, one sees plenty of the desolating roughness of mining, but not one solitary miner.

Cabins deserted, water-wheels falling to pieces, broken ditches and ragged bits of flume, all tell the forlorn story of exhausted diggings.

But the muddy look of the river indicates that the work still goes on a few miles above in the gulches and along the bars that have furnished inspiration for the muse of Bret Harte, and have done their unconscious best to tip his pen with an original raciness that imparts new flavor to the literature of the day.

Lucky Camps, and Gulches, and Bars!

Will they live long enough to know that they are immortalized in song and story? Or will they madly wash themselves all away and leave nothing but bed-rock for the classic ground of future generations?

Now if only Knights Ferry could be put in immortal verse! During 4 or 5 months of the year it is as fair a place for inspiration as any other, and I see no reason why they should not raise up a good and reliable native poet who shall sing right worthy of its marvelous fruits and flowers.

Its swift rolling river, the mill that stood by it,
The bridge, and the dam that belongs to the mill,—
The cot of the miner, the mining claim nigh it,
And e'en the rude ditch that embraces Goat Hill.

O, it deserves a song, for did I not find on its trees the loveliest and largest oranges and lemons still perfecting their rich juice all through February and even into March?

The great golden lemons were wonderful and I wanted to know just how large, so my kind host measured the biggest—13 inches one way by 11¼ the other. It had a slightly bitter flavor but made excellent lemonade.

In the beautiful grounds that once were "ours," I had the pleasure of seeing a favorite tree still quite full of oranges although large quantities had already been picked and sold.

They were said to be delicious; and having in years gone by tasted the first fruits of this lovely tree I was glad to hear that with increase of quantity there is no falling off in quality.

Some of my kind old neighbors had apples that were still crisp and juicy in March, and on the way home I had the pleasure of giving the last big, red one to an Overland passenger who doubted if California apples can be as good as those of Indiana. That Knights Ferry apple just suited his tooth and seemed to settle the question, for he said he would send for his folks right away.

Will the apple from friend Arnold's orchard help to change the destiny of a family?

All the good things we can raise and all the good words we can truthfully write about this favored land, will doubtless help to bring here the right class of people, whose destinies will be still further affected by the quantity and quality of fruit they cultivate.

All along these foot hills the summer days are hot and they do a tropical business in gardens, orchards and vineyards.

Already the vineyards of K's Ferry are becoming famous, and to the largest of these I went one day, in company with good old friends. It is a mile or more from town and is called

The Red Mountain Vineyard.

The actual mountain that gives the name is some distance away, but the red soil of it is all through the pretty valley where 75 acres are covered with vines, *not* trailing about in wild confusion, but pruned and clipped like snug little bushes, with main stems very thick and strong. This method of cultivation was such a surprise to me when I first saw it, and may be an item of interest to those not familiar with vineyards. Here were some 60,000 stark and stiff vines that will soon burst into the beauty of leaves and the glory of rich fruitage. And then—what then? a cargo of delicious raisins? No—a few raisins, and a great cellar full of wine, and a rocky, subterranean gallery or vault nearly 200 ft. long, full of wine, and big wagons full of wine moving slowly, day after day to the railroad station, where car loads of pure juice of the grape go whirling off into the great world to do such work of good and evil as is only possible for this purest and brightest blood of the grape.

Standing in the midst of great tanks, butts and pipes of wine, I remembered that we were all "temperance fanatics."

"Girls, can you bear to let your thoughts follow the streams of tempting liquid that flow from this valley out into the social glasses of all sorts of people?" They look backward to the darkening vault, glance again at the immense casks and fixtures of the cellars, and shake their heads thoughtfully.

"Here comes one of the genial proprietors; let us ask him. Mr. Schell can you bear to let imagination follow the course and "final consummation of all the wine you make?"

"Ladies, I never take that amount of imaginative trouble. I seek only to put upon the market a pure and excellent article, knowing that now, as in all previous ages of the world, a certain amount of stimulating drink will be called for and consumed by certain classes of people. They always would have it, they always will have it. Is it not better to furnish a pure supply than leave them to be poisoned with vile decoctions? And now as you do not taste my wine let me show you samples of the purest and strongest vinegar that can be made. Very few persons have conscientious scruples against vinegar."

Thus with our imaginations summarily dismissed and our scruples politely respected, we followed to the vinegar cellar and smacked our lips over acids rich and rare that would delight the palates of epicurean salad-makers when once safely mixed with the salad. But two or three drops taken "strait" would strangle the delighted epicure.

Then clean bottles were brought and filled for each visitor with wine syrup made by boiling the sweet, unfermented wine in the same way that cider is boiled; and the syrup may be used for similar purposes. Much of it is used here at the manufactory for improving the quality of wine that is not sweet or rich enough to suit certain requirements.

We thought it would agree with mince-meat and "make up" a very superior article of pie. But one of our number dont believe in mince pies and I can't imagine what she will do with her syrup. Mine is safe in San Francisco where, at the last moment, it was forgotten as we hurried to the cars; but the good fellowship that prompted the gift is also safe for a lifetime and *not* liable to be forgotten.

It was a pleasure to visit the fine vineyard of our friends and take a peep into every department so thoroughly carried on and carried out.

It is a pleasure to see any great business conducted with such order, skill and honesty as ensures final success. If any sick person wants the purest and best wine, he can certainly get it here. Persons in good health don't need the wine; but the vinegar is cuttingly delicious and makes my mouth water yet. The whole product of the vineyard is now going East where pure wine is a rarity and commands a better price than here. After much pondering I cannot but acknowledge that for those who *will* have wine it is better to furnish a pure article than leave them to the tender mercies of those who deal out poisonous mixtures with fancy names.

But so few are benefited — so many are injured even by the *pure* intoxicating drinks.

Dr. Holmes' opinion of the great *Materia Medica* is pretty well understood when he declares that with the exception of a very few simples, it would be better for mankind though worse for the fishes, if the whole venerable system, drugs and all could be swept into the sea.

So with the exception of a few bottles with which to finish up the most desperate cases of delirium tremens, I wish that the whole liquor business, pure or impure, could be swept from the face of the earth, and then without waiting for woman's suffrage

All Hail the Millennium.

What! would I so gladly upset the business of one friend who is successful, and scores of others who are terribly unsuccessful, in order to help forward the millennium? And what does millennium mean, anyhow?

Strictly interpreted, I suppose it means—the Golden Rule and a plenty of it in all characters and communities. Don't you see?

Then again—the man who is capable of carving success out of the wine business, is capable of achieving a more glorious success in other and more beneficent pursuits. Don't you see?

A Mother's Grave.—Earth has some sacred spots where we feel like loosening the shoes from our feet, and treading with holy reverence; where common words of pleasure are unfitting; places were friendship's hands have lingered in each other, where vows have been plighted, prayers offered and tears of parting have been shed. Oh, how the thoughts hover round such places, and travel back through immeasurable space to visit them. But of all the spots on the green earth, none is so sacred as where rests, waiting the resurrection, those we once loved and cherished. Hence in all ages, the better portion of mankind have chosen the loved spots they have loved to wander at eventide, and weep alone. But among the charnel houses of the dead if there is one spot more sacred than the rest, it is a mother's grave, there sleeps the mother of our infancy she whose heart was a stranger to every other feeling but love, and who could always find excuses for us when we could find none ourselves. There she sleeps and we love the very earth for her sake.

Miscellaneous.

Soldering Metals.

For large and heavy pieces of iron and steel, copper or brass is used. The surfaces to be united are first filed off in order that they may be clean. Then they are bound together with steel, and upon the joint a thin strip of sheet copper or brass is laid, or, if necessary, fastened to it with a wire. The part to be soldered is now covered with a paste of clay, free from sand, to the thickness of one inch, the coating being applied to the width of a hand on each side of the piece. It is then laid near a fire, so that the clay may dry slowly. The part to be soldered is then held before the blast, and heated to a white heat, whereby the clay vitrifies. If iron is soldered to iron, the piece must be cooled off in water. In soldering steel to steel, however, the piece is allowed to cool slowly. The semi-vitrified clay is then knocked off, and the surface is cleaned in a proper manner.

By following the hints given, it will be found that a durable and clean soldering is obtained. If brass instead of copper is used, it is not necessary to heat so strongly. The former recommends itself, therefore, for steel. Articles of iron and steel of medium size are best united with hard or soft brass solder. In both cases the seams are cleanly filed and spread over with the solder and borax, when the soldering seam is heated. Hard brass solder is prepared by melting in a crucible eight parts of brass, and adding one part of previously heated zinc. The crucible is then covered and exposed to a glow-heat for a few minutes, then emptied into a pail with cold water, the water being strongly agitated with a broom. Thus the metal is obtained in small grains or granules. Soft brass solder is obtained by melting together six parts of brass, one of zinc, and one of tin. The granulation is carried out as indicated above. Small articles are best soldered with hard silver solder or soft solder. The former is obtained by alloying equal parts of fine silver and soft brass. In fusing, the mass is covered with borax, and, when cold, the metal is beaten out to a thin sheet, of which a sufficiently large and previously annealed piece is placed with borax upon the seams to be united and heated.

Soft silver solder differs from hard silver solder only in that the former contains one-sixteenth of tin, which is added to it during fusion. Very fine articles of iron and steel are soldered with gold—viz., either with pure gold or hard gold solder. The latter can be obtained by fusion of one part gold, two parts silver, and three copper. Fine steel wire can also be soldered with tin, but the work is not very durable. Hard and soft brass solder are used for uniting copper and brass to iron and steel, silver solder for silver, hard gold solder for gold.—*Exchange.*

Railroad Consumption of Timber.

But few people are aware of the immense drain which the railroads make upon the timber resources of the country, and what a boon it would be to the Railroad Companies and the desired permanence of our forests if some practical device could be introduced as a substitute for wooden ties. It is estimated that the number of railroad ties in present use in the United States are 150,000,000. And as young timber is mostly used, a cut of 200 ties to the acre is above rather than under the average, and it therefore has required the product of 750,000 acres of well timbered land to furnish the supply. Railroad ties last about five years, consequently 30,000,000 ties are used annually for repairs, taking the timber from 150,000 acres. The manufacture of rolling stock requires the entire yield of 350,000 acres, more every year. Thus it appears, that our railroads are stripping the country at the rate of 500,000 acres per annum, and their demands are rapidly increasing.

Ingenious Engineering.—During the construction of the bridge at Kuilenborg, Holland, says the *Chronique, de l'Industrie*, one of the principal traverses, some 465 feet in length, was placed about one inch too far on the piles. This error was rectified in a very ingenious manner. The expansion of the mass of metal was exactly .0394 inches per Fahrenheit degree. At the locality of the work the difference between the temperature of the atmosphere by day and by night was 25° Fah. In the morning the too far advanced end of the traverse was securely bolted down, when during the day the heat of the sun expanded the metal so that the free extremity advanced .985 of an inch. Then at night the latter end was fastened and the contraction caused a like movement of the opposite free extremity. This operation twice repeated, brought the traverse into its proper position.

Enameled Faced Bricks.—We have already alluded to a new style of brick, by which that useful building material was to assume a more decorative character than heretofore, and it is now stated that extensive works are being erected in Pittsburg to manufacture pressed bricks with enamelled facings. The enamel is made of various colors to suit the tastes of architects or builders, and as it is impervious to water or acids, having a surface that can be cleaned like glass, it is well adapted for building purposes in the smoky cities of the West. The enamel is claimed to increase the strength and durability of the bricks, while giving all the beauty of the surface to be obtained from stone or marble. The cost is said to be $20 per thousand over common pressed brick.

The Gunpowder Pile Driver.

In answer to a correspondent who desires to know the mechanical construction of the recently invented gunpowder pile driver, we give the following description from an exchange: The gunpowder pile driver, brought out originally in this country, was introduced into England some five years since, and its workings has demonstrated that by its use a considerable saving is effected both in time and cost as against the ordinary method of pile-driving. The apparatus consists of an ordinary pile-driving engine having a ram, from the upper and under side of which a plunger projects. The ram is fitted with an arrangement by which it may be retained at any desired hight above the pile head. A cast iron cap, having a hole in its centre into which the lower plunger of the ram will fit, is placed on the top of the pile to be driven, and in the hole is inserted a small charge of gun powder. On the ram being released the lower plunger enters the hole in the cap and, compressing the air within, generates heat, which ignites the gun powder. The force of the explosion is utilized partly in driving the pile downward, and partly in throwing the ram upward, the latter being detained at the required hight ready for the next blow. Should the ram be thrown too high, the upper plunger enters an air cylinder, compressing the air and cushioning the blow. The charges of gunpowder were at first fed into the cap piece by hand, but a self-acting feeding arrangement is now used which supplies ammunition automatically after every shot.

Deep Sea Currents.—The principles involved in the circulation of the waters of the sea were beautifully shown before a late meeting of the British Royal Geographical Society, by a simple experiment. A trough with plate-glass sides, about six feet long, and a foot deep but not more than an inch wide, was filled with water. At one end a piece of ice was wedged in between the sides to represent the polar cold; while the tropic heat was represented at the other end by a bar of metal laid across the surface of the water, the projecting end of which was heated with a spirit lamp. Red coloring matter was then put in at the warm end and blue at the cold end, so that the currents could be traced. The blue water, chilled by by contact with the ice, immediately fell down to the bottom, crept slowly along, and gradually rose towards the surface at the equatorial end, after which it gradually returned along the surface to its starting point. The red water crept first along the surface to the polar end, then fell to the bottom just as the blue had done, and formed another stratum, creeping back again along the bottom, and coming again to the surface, Each color made a distinct circulation during the half hour in which the audience viewed the experiment.

New Process for Making Steel Dies.—A new process for making steel dies is spoken of, that work being accomplished by heating the metal to a white heat in a close chamber to exclude the air, and then pressing it upon the material to be copied. It is claimed that by means of this process the hardest steel may be stamped by any soft metal—even lead—so as to make a perfect die of the objects impressed. A carved ring, for instance, might be used to stamp its own image on the hardest and most finely tempered steel, reproducing all its delicate tracing and outline with absolute precision and perfection without injury to the stone.

It is said that the secret of thus being able to bring together friable and easily melted substances, such as lead or precious stones, with semi-fused steel consists in the process of heating the steel disk, which must be of a certain degree of temperature. Admitting the possibility of such a thing, we might remark that it would enable every counterfeiter to get perfectly accurate dies of all kinds of coins, and may be used for the cheap reproduction in steel of any kind of engraving in wood, copper or type metal. The most elegant chasings, heretofore made at great expense, might thus be cheaply stamped, and the small castings of copper, brass and bronze might be imitated in the hardest steel. Stereotype plates that will defy the wear of years may be made in the same manner.

Hardening Iron Surfaces.—By means of a simple compound, just invented, the surface of iron may, it is alleged, be hardened in a manner superior to that obtained by any other now in use—the compound, in this case, being mixed with iron in a melted state, and the hardening to take the place of the chilling process. The method in question consists of mixing, in a melted form, three pounds tin, one pound iron, four ounces copper, one half-ounce aluminum, and one-fourth ounce quick silver; and then, from one-eighth to one-quarter of a pound of said compound is mixed with five pounds of cheap iron, in a melted form. The greater proportion of the compound mixed with the iron the deeper from the surface does the hardening process extend. The effect of applying this compound is to make the surface of about that of hardened steel, and it is claimed that it is fully equal to steel in other respects; moreover, the surface will not rust, but will retain its color and brilliancy. The cost, taking into account the difference in the amount of time and labor involved, must be considerably in favor of the new process.

Farmers in Council.

Oakland Farming, Horticultural and Industrial Club.

Meeting May 9th. Dr. Carr being absent, Mr. Ches. H. Dwinelle was elected President, pro tem.

Communications.

Secretary Dewey read a communication from A. L. Bancroft & Co., San Francisco, accompanied by a catalogue of books.

A communication was also received from J. J. Nicholson, and two copies of reports from Hon: E. Casserly,

The Currency Question.

The President stated that he found a communication on the table on the financial question, which was read by the Secretary. The paper commenced by stating that the currency question should be made a political plank in the coming campaign. The small amount of gold and silver left here was insufficient for the business purposes of the State. The law permits too high a rate of interest. A radical change in the financiel system of the nation is needed; a national banking system on a gold and silver basis. A mother bank should be established and branch banks in each State. A law of Congress should fix the rate of interest at two per cent. per annum. As a nation, we are only trying to get hold of European capital to build railroads, etc., for which we pay millions in gold as interest. The evils now existing can be corrected by the government giving us a different national currency. By this we should also escape those periodical financial blasts that sweep over the country. The communication was signed "A Farmer," and in a postscript the author urged the discussion of the currency question by all Farmer Clubs, and the sending of communications to Congress, and if Congress should refuse to act in the premises, the people should see to it that men be sent to Washington, who would do so.

The Chairman said that while we hear on every side the great cry that we want immigration of INTELLIGENT PEOPLE who will bring with them money, it was a fact that many were deterred from coming by the apparent shrinking of their money. They find that when they cross a certain line their money appears to shrink sixteen to eighteen per cent., or the difference between the current value of greenbacks and gold. It was true that their money swells when they return, but the fact of it becoming apparently less in value prevents many from coming. When the farmer inquires the cause of a tightness in the money market, he is told that it is caused by a scarcity of gold in New York, that the business men of New York are sending their gold to Europe. The farmer finds that he can very easily overstock the produce market. Not only does the gold system in California prevent immigration, but it tends to drive many from the State. People with ten or fifteen thousand dollars are often changing their homes to the East, where the transfer of their small fortunes causes it to swell to such an amount that it becomes large enough to satisfy them for the remainder of their lives. The change from gold to currency would of course cause temporary confusion, but it would certainly be better for the country.

Mr. Horner addressed the members in favor of a national currency.

J. V. Webster, of Fruit Vale, said the gold is drawn from the country faster than we can produce it, to pay off our obligation in Europe. It is estimated that we pay from $240,000,000 to $250,000,000 in gold coin annually to Europe in interest. It had been a puzzle to him for a time why government bonds should be depreciated fifteen per cent. During the war, when there was a danger that the Government would be overturned, there was some reason for Government bonds being depreciated. In casting about, he found that Government securities are the only thing we have that is available to procure gold with. Our merchants must have gold to pay duties with, and gold must be sent to Europe to pay the interest on the bonds held there. The reason why the bonds are not as good as gold, is because they are sold for gold. If the bonds were all held in the United States, they would be as good as gold. To illustrate a point Mr. Webster gave an incident.

Mr. Holliday went to England to negotiate bonds for $10,000,000. For that amount of bonds he gets $6,000,000 in gold. Deducting brokerage, stealings, etc., and he brings back but about $5,000,000. He must pay seven per cent. interest annually upon $10,000,000, whereas he has received but $5,000,000. The interest on $10,000,000 at 7 per cent. will in a little less than five years amount to $5,000,000, the amount received; and in nine years he will have paid $10,000,000 in gold as interest, and still owes the principal. At the present rate in which gold is going from us—appreciating—it will in ten years hence be worth twice as much as greenbacks. After speaking at some length on the affirmative of the question, Mr. Webster referred to some reasons why greenbacks should not be the currency. Strikes among the working classes would be one of the results, as the employés would pay their men in greenbacks without raising their wages. The fluctuation in the greenback market would also be attended by evils to the importer, whose losses, if he survived them, would be saddled upon the retail dealer. The system of sending out of the country more than we produce would prove ruinous. Last year we exported $65,000,000 worth and imported $75,000,000. It was no wonder that, not withstanding the great yield of the last season, we are suffering for the want of money, because we have a difference of $10,000,00 against us. The only way out of the evil could be to increase the tariff on all our importations that can be produced in the United States, so as to place an embargo on such goods as can be produced here.

Experiments.

Mr. Joseph Hafenegger explained the process of manufacturing a new explosive agent invented by him. He also made an experiment, by taking one pennyweight of chloride of potash in an iron vessel and placing upon it a fuse with an ordinary percussion cap at the lower end. Upon the potash was poured two pennyweights of a fluid consisting of bi-sulphide of carbon, phosphorus and turpentine. The fuse was then lighted, and as soon as it burned down a report as loud as that from a heavily charged rifle followed. One result was the extinguishment of the gas lights in the room. The safety of the explosive material was satisfactorily illustrated.

The Next Meeting.

Mr. Dewey moved that Dr. Carr be invited to deliver a lecture at the next meeting, and that the subject of forming a Grange of the Patrons of Husbandry in Alameda county be considered at that meeting. Adopted.

Referred.

The communication on the currency question, read this evening, was referred with the whole question, to a committee consisting of Messrs. Dewey, Webster and Bagge. Adjourned to Friday evening, May 23d.—*Oakland Daily News.*

San Jose Farmers' Club.

Club met May 10, President Casey presiding.

The committee appointed to consider the matter of the exemption of the inhabitants of incorporated towns from paying road taxes, submitted a report favorable to taxing the residents of the incorporated towns for the maintenance of the public roads. On motion the report of the committee was accepted.

The subject being upon for discussion, Jesse Hobson took strong ground in opposition to the report, contending, that the city streets were as indispensable as the country roads. Hence he considered it unjust to tax the cities for the maintenance of the country roads, and exempt the inhabitants of the country from taxes for keeping the streets in the cities in good order. He believed in an equal taxation, and it would be injustice to the cities to require them to build their own roads and those of the country too. He thought the country roads running through the city should be supported by a general tax, and then if the citizens desire side streets they could build them at their own expense.

Mr. Bergland thought the cities and country should each build their own roads. He was opposed to taxing the inhabitants of the country to help keep up the streets.

Mr. Haskell favored the report of the committee. He thought the streets were local in their character, and therefore those who are taxed to support them should not be exempt from a county road tax. He denied that the public streets of a city were public thoroughfares, and he argued that every person should so understand it.

A. C. Erkson took issue with Mr. Haskell, and contended that the streets were no more local in their character than many of the county roads that are seldom travelled, and they are just as much entitled to be provided for by a public and equitable tax as the county roads. He believed it required a much greater expenditure of time and money to keep up the streets than any other public roads. Mr. Erkson said he thought the present State law on this subject was good, and he was opposed to any change.

Mr. Cottle took grounds in favor of the report. He said all that was in the report was substantially true, and every man should know it.

J. F. Holloway said the city appropriates the money of the county as it pleases. San José elects three members of the Board of Supervisors, and these can control the interests of the county. He said that when the city asked for its charter of incorporation the citizens promised to support their own streets and government, but by means of wealth and lobbyism the city has gone back on its word and refuses to pay the taxes it should pay. He said he was not allowed to sell wood or the productions of his own soil in town without taking out a license, and if the people of the town were not willing to pay a general road tax he would like to have them come into the country themselves after the wood and domestic supplies.

Mr. Cadwell said he would like to see figures before he advanced any argument.

C. T. Settle said streets were built in cities and kept in good order for the purpose of enhancing the value of the city property, and in this respect they were a private enterprise. He thought it wrong to exempt such property from an equal taxation for the support of the roads of the country.

Jesse Hobson said he was willing to assist in building county roads because they were important to the prosperity of the city as well as the country. He insisted that streets were public roads. Mr. Hobson said he had resided in San José twenty-one years, and during that period the city had paid taxes for the support of the county roads leading out of town. The present year the city was exempt from a general road tax, but this he regarded as no just cause for complaint from the people of the country, as San Jose had performed her duty.

President Casey called the attention of the Club to the license system in the cities. He thought it was no special advantage to the county to exempt the cities from paying a road tax.

After some further discussion the report of the committee was adopted.

Owing to the lateness of the hour after disposing of the report, the usual discussion was omitted, and the Club adjourned—*Mercury.*

Patrons of Husbandry.

At a meeting of Napa Grange P. of H., No. 1, April 10th, the undersigned were appointed a committee to draft a circular address to the farmers of the Pacific Coast, setting forth the character and aims of the Order, and soliciting their co-operation. The following was submitted and unanimously adopted:

Character.

This is a secret organization. The secrets to be kept are such as every business firm keeps for its own security, and such as none outside of the firm are concerned to know. Secresy is regarded as necessary, only because designing men would take advantage of published information, and thwart the plans of farmers for the advancement of their own interests. Every prudent men keeps his counsel, and none but such as ordinary prudence demands do we keep.

The obligation taken by members conflicts in no way with their civil, religious, social or domestic duties, nor with their political views. It merely binds them not to divulge information which is not theirs alone, nor to tell abroad what is done privately. They are in no way involved by any action of the Grange to which they may belong, but are free to act independently, on their own judgment, and in all respects as they may choose. A vote of the Grange can effect them in no possible way beyond the amount they may have contributed as dues to the common fund.

The members of the Granges are Farmers and *only* farmers. None may be admitted save those whose actual pursuit is agriculture. Owners of land who depend chiefly on some other source for a livlihood are not eligible to membership. Being practical farmers and brought into close association, it is expected that the social natures of members will be developed. Those whose interests are common derive incalculable benefit from frequent and intimate intercourse. All questions of practical value to farmers may be freely discussed, and the experience of all made tributary to the general stock. [Editors being considered either, everything or ciphers, we do not know exactly which, are eligible at the discretion of local Granges.]—EDS. REPORTER.

Mutual assistance, as far as may be given without injury to our families or our business, must be afforded our brothers in distress; but no benefits are fixed.

Objects of the Organization.

Having said so much concerning the character of the Organization, its objects may be briefly stated. First, and in general, it is proposed to bring farmers into council, that by discussion of the various questions that affect their interests, the welfare of the community of farmers may be promoted. Second, and more particularly, it is designed to enlist the sympathy and co-operation of farmers in any and all measures that may be deemed advisable to facilitate the transportation and disposition of their products; to devise and execute such measures as may be necessary to protect themselves against the extortion of middlemen and the machinations of speculators, and to secure such legislation as may be necessary to guard their property against the exactions of the tax-gatherer. There is no question touching the welfare of the farmers with which Grange may not meddle, and none other with which they may.

Conditions of Membership.

As before stated, none may become members but actual farmers, their wives, sons (18 years of age), and daughters (16 years of age).

Applicants for membership must make application through a member, depositing a fee of $5 for males and $2 for females. The application must lay over one week. The fee, in case of rejection, will be refunded, and in case of acceptance will entitle the applicant to all the degrees and benefits. No further expense is incurred except a monthly due of such as may be determined by the local Grange. (The Napa Grange has fixed it at 25 cents).

How to Organize a Grange.

The first step necessary in the organization is to secure the names of not less than nine males and five females, not more than twenty males and ten females who will become charter members. Call them together and procure their signatures to a blank (which may be procured of Deputy W. H. Baxter, of Napa City, or O. H. Kelly, Secretary of National Grange, Georgetown, D. C.), asking for a dispensation to organize, and collecting of each signer $2, the charter fee. Nominate the officers named in the constitution of the National Grange, and having the Deputy appoint and sign it, send forward the application with signatures, and $15 (out of the amount collected) to the Secretary of the National Grange (O. H. Kelly, Georgetown, D. C.) The sum forwarded will entitle the senders to ritnals, blanks, etc., necessary to begin work. Signed by the Committee.

J. M. THOMPSON,
W. H. NASH,
G. W. HENNING.

Merced Farmers' Club.

The Merced Farmers' Club met Saturday, May 3d, but owing to the organization of a Grange on that day, no other business was transacted.

Merced Grange.

A Grange was organized in this place Saturday last, under the above title, by Deputy Baxter, and entered upon its mission with a Charter list of twenty-three members. Following are the

Officers:

Master, H. B. Jolly; Lecturer, W. P. Fowler; Overseer, N. S. Rogers; Chaplain, F. Harmon; Treasurer, Thomas Upton; Secretary, E. R. Elliott; Steward, W. W. Gray; Gate-keeper, W. E. Elliott; Ceres, Mrs. Fannie A. Fowler; Flora, Mrs. J. Keith; Pomona, Mrs. Louise W. Jolly.

The Organization

Is a secret one, the members being required to take an obligation that they will not divulge any of the business transacted at the meetings of the Grange. No political or religious questions are discussed. The initiation fee is five dollars for males, and two dollars for females, which fees entitle the members to all the degrees; there is also a monthly assessment of twenty-five cents upon every member. Mr. Baxter, the State Deputy, informs us that he has received calls to organize Granges at San José, Suisun, and various other places in the State, and that the entire agricultural community are taking an interest in the matter that augurs well for its success.—*Merced Tribune.*

San Joaquin Farmers' Club.

The Club met at the usual hour, Saturday, May 10th, Captain Ketchum, President, in the Chair.

The Secretary read a communication from C. B. Ring & Co., setting forth that the firm named had opened an employment office at 197 Hunter street, and were prepared to furnish laboring men to farmers free of charge to the latter. On motion, the communication was received, and the farmers present concluded to patronize the firm when in want of help.

The subject of irrigation was taken up and discussed for about two hours by Messrs. Overhiser, Meyers, Lander, Ketchum, Phelps, Barber, Ashley and others. Major Orr, who has lately paid considerable attention to the subject, was present, and gave his views, and suggested a plan which was conceded by the meeting to be the best yet devised for utilizing the waters of the State for irrigating purposes. All the farmers present seemed to be fully aware of the great importance of the subject under consideration, and it was voted to continue the discussion of the subject next Saturday.

The President stated for the information of farmers who desired to poison squirrels, that arsenic would serve as good a purpose as strychnine, and would be found much cheaper. —*Independent.*

ANOTHER GRANGE ORGANIZED.—General Deputy, W. H. Baxter, organized a Grange of the Patrons of Husbandry, on the 9th inst., at Suisun, under the name of "Suisun Valley Grange No. 9." There were 30 charter members, the maximum number allowed by the Constitution of the Order. R. C. Haile, is master, and A. T. Hetch, Secretary. This is the ninth Grange organized in the State, and Mr. Baxter has seven more appointments for organization, to be filled as fast as he can travel around and do it. The *Iowa Homestead* predicts that California will have one hundred Granges within six months, and the rapidity with which the work of organization goes on, seems to favor that assumption.

From all over the East we hear continued reports of the wonderful progress of the Order. A State Grange was instituted April 15th, in Michigan, at Kalamazoo, with twenty to thirty Granges represented.

A State Grange will be opened in Missouri, at Knob Noster, May 15th, and it is thought that there will be 250 Granges at that time in the State. Wisconsin has 125 subordinate Granges; Illinois upwards of 300, and the State of Iowa, alone, fifteen hundred! The cause goes marching on. Monopolists stand from under! By the way, we speak for that State Grange to be located at Napa City.—*Napa Register.*

MONTEREY COUNTY AGRICULTURAL SOCIETY.—Pursuant to notice, this Society held a meeting Saturday, May 3d. The business in hand was the election of officers for the ensuing year.

The following named gentlemen were elected: President, J. D. Carr; 1st Vice President, J. R. Hebron; 2d Vice President, C. S. Abbott; Directors—B. V. Sargent, Z. Herbert, Thos. Malone, E. J. Martin, E. A. Reynolds; Secretary, W. L. Carpenter; Treasurer, Wm. Vanderhurst.

It was agreed that all members of the Society, upon payment of $20 on or before the 20th inst, shall become a life member.

Adjourned to meet May 25th, 1873.—*Monterey Democrat.*

Agricultural Notes.

BUTTE

Enterprise, May 9: Prospect on the Bidwell Farms.—Through the kindness of Mr. Dan Bidwell we were shown over the crops raised upon the ranch of John Bidwell and his own. Mr. Decker is cultivating about one thousand six hundred acres on the two fields. We visited every part of the fields, and find nothing discouraging in the aspect of the crops. The summer-fallow grain is in most flourishing condition—of good hight and excellent color. The late sown needs rain, but yet bears every appearance of health. There is no sign of drouth except the leaves which lay next to the ground, which is so every year. If the rain will only come by the 15th of May, all this large crop will afford a good yield.

Our Crops.—It is often said, and there is much truth in the saying, that our farmers are frightened before they are hurt. Reports reccived the early part of the week had induced us to believe that much damage had been done our crops by the late north wind. On Wednesday we took a ride with Mr. Reavis and Dr. Sproul over that section of the country which lies north of Chico, and found, to our surprise, the crops all looking in good condition. Notwithstanding that the wind had for seven days been blowing from the north, there was no burn even of the lowest blades of the stalk, but the grain was all of good color, and rain coming within eight or ten days will bring the average yield. It is true that all of our crops are needing rain, and that in many places the grain is short, but one good rain, which we may reasonable expect, judging from past seasons, will make an average yield.

CONTRA COSTA.

Gazette, May 10: Haying.—We are now fairly into the haying season with only a very light crop to gather. Some of the pieces of barley designed for hay are quite heavy, but the natural grass is everywhere very short. It is probable that considerable wheat that will not make much grain will be cut later in the season for hay; and it is also probable that most of the grain straw will be stored for fodder.

Ledger, May 10: Fine Barley.—W. Newman whose farm is in the immediate vicinity of Antioch, has one hundred and sixty acres of barley which he thinks will yield forty bushels to the acre. W. Newman informs us that this is the tenth season that this land has been seeded and that he has failed but once during this period of growing a good crop, either of wheat, oats or barley. He attributes his success to deep plowing and sowing with the first rains of the season.

Ramie.—The success which has attended the efforts to grow the ramie plant on Twitchell Island has encouraged its introduction in other places. The Boggs brothers have fifteen acres on Sherman Island which is looking fine and gives promise of maturing. We were shown a few plants by Mr. Emery Boggs this week which he proposes to transplant on Henry Gallagher's ranch at Point of Timber. It is said the demand for the article in England is constantly increasing. There is no doubt there are many branches of industry which might be profitably engaged in by our farming population which would prove fully as remunerative as wheat raising.

Good Soil.—It is encouraging to see the crops of wheat and barley about the Iron House on the Marsh Creek delta in this season of general blight. Here an alluvium of the everlasting hills and valleys of Mount Diablo is dropping each year by the creek that here spreads from one to two miles, having no channel, and in so doing thoroughly saturates about six quarter sections that teem with heavy crops without a failure, each season. The soil is as good as the best in the county. but the water is the secret. Talk for the canal! Help the canal, till we all have water. Mr. Barkley and also some of his neighbors on Eden Plain have shown what can be done by a small quantity of water, raised by wind on a dry ranch. They have made some of the "waste places" of the great desert of the San Joaquin valley to "blossom as the rose," affording all the necessaries and some of the luxuries of life. About half crops will be harvested in the vicinity of the Point of Timber—another one of the good spots of "our Maker's footstool," in the delta of Kellogg creek—and, mind you, water the secret again. We acknowledge to being a little "rattleweeded" on the canal question.

EL DORADO.

Republican, May 8: Angora Wool.—Nathan Gilmore of Mud Springs Township about the 28 of April last, shipped to Dyster, Nadler, & Co., of London, about two thousand pounds of Angora wool. About half of the amount was first quality, and the remainder graded. This is the first shipment that has ever been made to England from this State. Good for El Dorado.

HUMBOLDT.

Times, May 3: Another Fine Shower—Another copious shower of rain occured during last Sunday evening and night, watering the ground well. On Monday the weather cleared and since we have been favored with bright and genial sunshine. Such weather is extremely favorable for the farming interests.

KERN.

Courier, May 3: Many of our farmers are now cutting, and some have already cut, their first crop of alfala of the season. Hitherto there has been no seed produced here. It commands a high price, and large sums of money have been sent out of the county to procure it. The demand will be extremely active this fall, as the aggregate of the tracts intended to be sown is very large. We would suggest that if a few of our farmers would let their crops go to seed they would find it a paying speculation. Surely it can be gathered here as well as in any other part of State, and the production of an article at home, of which so much is needed, would seem to be justified on the plainest principles of economy. The price, with the growing demand, has been advancing for years past. All our financial difficulties, both local and national, are mainly occasioned because we send abroad for so many things that can be just as well produced at home.

Miner, May 3; If we don't have rain soon there will be but little green raised in this neck of the woods, particularly where there are no means to irrigate. A fair rain of a few hours duration within the next two weeks will yet save our mountain valleys. South Fork of Kern river, as usual, with their abundant supply of water to irrigate, will raise as good crops as last year. and much more of it, as there is more land under cultivation. Grass, however, in our hills is plenty; already the famishing herds from the plains are beginning to crowd upon us. In years like this bids fair to be, is when our situation can be properly appreciated.

LAKE.

Bee, May 10: Birds. — We don't remember having seen such a large number and variety of small birds in any other part of the State, as there are in and around Lakeport at the present time. Every tree seems full of them, and several kinds are good singers, though their notes are very brief and unvaried. Among the the best singers is the linnet. The species is very numerous here.

Abating.—The epizoot attacked horses here in a mild form, and the disease is now entirely disappearing. All animals affected in Lakeport are generally getting well.

MERCED.

Tribune May 10: The Grain.—The grain in this vicinity, considering the long spell of dry weather, looks much better than could have been expected. The early sown grain, up to last week, looked healthy, but even that in a majority of the fields is beginning to look "spotted." the heads beginning to wither at the top. Where the soil is of an alkili character, the crops thereon will be a total failure.

There will be considerable grain and hay raised in the vicinity of Plainsburg, notwithstanding the drouth. There will be more cotton cultivated along Mariposa Creek, but we fear with less success than last year. About five hundred acres are being planted, principally by Strong, Hazelton & Co.

NAPA.

Register, May 5: Crops. — Dr. Allyn thinks there will be about a third of a crop of grapes, others estimate as high as half a crop. Some, at least, of the grain is a failure, and will be mowed for hay. The scarcity of grapes is regarded by some, as a good thing, in the long run, as it will improve the price of both grapes and wine. It is to be hoped that some good will come of it after awhile, for it certainly has a depressing enough effect at present.

Our people will have to put up more raisins, and get in the way of having other uses for their grapes than depending on the wine-cellars for a market; then they can make more out of them. It seems like an outrageous piece of extravagance for us to send away to the Mediterranean to buy an article we can make just as well at home.

I have seen at Napa City, a home manufactured raisin, as large, as juicy, plump and good—in every way as ever was imported under the "Malaga" brand, yet while we complain of hard times, and scarce money at home, we buy of foreigners what we ought to make ourselves, and pay premium on gold, exchange, freights, profits, duties and commissions and a dozen other expenses on the purchase into the bargain. As long as we continue to do this business, Providence may well send us hard times as a punishment for the folly.

MONTEREY.

Advance May, 10: Hay cutting has commenced in good earnest in this part of the country. Notwithstanding the long continuance of hot and dry weather, the crops, througout the country, are in a most satisfactory condition, the same with feed, of which there is great abundance and of excellent quality. On Wednesday evening and during the night, the country was enveloped in a dense fog, which was of good service to the growing grain.

SONOMA.

Argus, May 9th: First Cherries.—We are indebted to S. W. Cassiday for a choice lot of the first cheries of the season, as well as for the pleasure of a visit to his splendid orchard in the soft, delicious air of early morning. Mr. Cassiday has 400 cherry trees, all heavily loaded with fruit. We were somewhat surprised to observe that his orchard land is sufficiently moist for all agricultural purposes at the present time. It is actually wet to the very surface. This proves the advantage of forests to an agricultural country in a meteorological point of view. That land is indebted for its moisture to the expanding boughs of those trees. Their heavy foliage condenses moisture from the atmosphere, and it retards its evaporation from the ground. The trees and vines of his forty acres bring him more money every year than he could made on three hundred acre of treeless land, while at the same time he can raise twice as much besides from the land as he could were there no trees on it.

Grapes in Prospective.—While the frosts have materially injured the grape prospects in the interior, we are assured that but little, if any, damage has been done in that respect in this section. This is due to our location—frost seldom damaging fruit near the coast. Old Sonoma gives promise of an abundant crop of all kinds of fruit.

Preparing for Harvest.—Our farmers are busily preparing for the approaching harvest. Some are purchasing new tools and machinery, and others repairing the old—but in one shape or another all are making ready for the contest.

SANTA BARBARA.

Press, May 3d: Good Prospects for Fruit.—We have conversed with our fortunate citizens who had the sagacity a few years since to plant fruit trees, and they assure us that the prospect was never better for fruit in this vicinity than this year. Apples and peaches are likely to load all the trees that are able to bear. In two or three years more there ought to be bearing trees enough to amply supply our home market; though the population is increasing so fast that tree planters will not probably more than keep pace with it for some time to come.

Grasshoppers.—In some parts of the conntry the young grasshoppers, about the size of a kernel of wheat, are said to be swarming by the million. Many of the crops are so matured that they will not fall a prey to these pests; but they will make havoo with other crops and the pastures where they are numerous. It is a singular and enoouraging fact that they never hatch out in plowed and well cultivated land. It is only where the ground dries out and cracks open in April that they oreep up through the cracks and grow into formidable foes of the farmer.

SAN DIEGO.

Union, May 1: The Pasturage.—In that portion of the county lying between here and Julian, the pasturage is good, and will afford abundant feed for cattle through the snmmer. Stock everywhere are in excellent condition.

Wool From Lower California.—Yesterday, Corder & Co. received a cargo of 2,311 pounds of wool from Lower California.

La Grulla.—This is one of the most charming spots in Lower California Frontier. It is six miles this side Santa Tomas, and about two days' journey from San Diego. Mr. McAleer and family live there and have a very pleasant home. There are some fine vineyards at La Grulla, and the people make a very superior quality of wine there. All kinds of fruits are also produced.

SAN JOAQUIN.

Argus May 10: Mariposa Creek Cotton in Scotland.—Mr. James Cairncross has shown us a letter from his brother in Brechin, Scotland, from which we copy the following extract:

"Regarding the cotton sample you sent me, my own opinion of it is—that it is a well cleaned sample, very free from seeds or motes; of good staple and color, similar to that which generally comes to this country from New Orleans, worth in my opinion, in Liverpool, from 21 to 23 cents per pound. However, to thoroughly test it, I have sent it to Robert at Glasgow to be examined and reported upon by some of the cotton factors there. I will not fail to send you full particulars of the report."

The sample of cotton mentioned was taken from the gin of Major John L. Strong, on Mariposa Creek in December last. We mention these matters to show the estimate placed upon this new Pacific Coast staple by gentlemen in Europe who have had large experience in the manufacture of cotton goods from the raw material raised in the United States. Cotton, in our opinion, will in a few years become a leading article of export from California, a large amount of which will be produced by the farmers of the San Joaquin Valley; Merced county taking the lead of all other localities in its production.

TEHAMA.

Independent, May 10: We were considerably surprised on Monday, while on a trip to Marysville to see how extremely bad the grain looked on the line of the railroad. For the past three or four weeks we have heard complaints and fears that the crops would be short, but did not realize that it could possibly be as bad as it is. Between Gerke's ranch and Marysville, a distance of about sixty miles, we don't believe that a dozen fields will pay for harvesting. We were informed that the grain between the railroad and the river was better, but that none of it would bring anywhere near a full crop. We were also informed that in Chico township the grain looked better than any other part of Butte county. Judging from what we saw the balance must be a total failnre. Between Gerke's and Tehama the grain looked a little better but none to brag on.

The north wind has continued to blow during the entire week and has almost made our farmers give up hope that they would be able to harvest any crops, but during the most of the week the wind has not been as hot as north winds are generally, and has not had such a damaging effect on the grain as many would suppose, and it is thought that if we should have rain any time during the next week, that much of the early sown grain would fill and produce half or two-thirds of a crop. The late sown grain is considered beyond any help.

TUOLUMNE.

Independent, May 5: Cotton in Tuolumne.—A small quantity of cotton was grown last year, on some slum over the creek gravel, at Jamestown, on the premises of A. W. Montgomery, Esq. From a dozen "bolls" we are enabled to judge of its healthy growth—being very large and well filled; and its quality, of a fine, white and silky appearance, seemingly strong and of long staple. It was planted a year ago the 26th of April last, thus avoiding the blighting effects of frost, Can the cotton crop be made a profitable branch of business in California? A reason for failure does not present itself.

It has been grown successfully in the lower counties, especially in Merced; and with the fine water privileges at hand for mills, an agent without muscle or expense, could be brought into use, making the business profitable beyond peradventure; by supplying home consumption, giving employment to the industrious, keeping our gold and silver at home, and giving the greatest lever power, and to building up a prosperous and thriving State.

The great necessity for home manufaoture is felt every day, and has been for years. We are in a measure a non-producing people. It is true we furnish gold and silver, and have but little to show for it but imported merchandise bought for hard gold at greenback prices. Not till this immense drain, this disasterous leakage is stopped, will we be prosperous and independent.

As the mines in this country are worked out, a system of "slumming" should be inaugurated in many places, which reclaims the land, increasing its value very much for the uses of the farmer. Then we say, plant your cotton and your coffee, and the market will make itself.

WASHINGTON.

Union April 26: Crickets.—We hear from different parts of the eastern portion of this county, that crickets are making their appearance in numbers that could not be computed by any ordinary arithmetician. They are very small now, of course, but, as they appear quite healthy, will be large enough to do great harm before harvest. Hogs are said to be poison to crickets, and it may be that between hogs and ditches the crops may be saved. They seem to be more numerous between Dry Creek and Touchet than anywhere else. But there is no scarcity on Tukanon and Pataha.

Rain.—During the forepart of the week we had a most plentiful rain. It rained very hard all of Sunday night, and part of Monday night. The ground seemed to be thoroughly moistened clear down to the bed-rock. It has given crops a good start and was very much needed. Since this rain grass seems to have taken a new start and is now very abundant.

Voyage of the "Challenger."—The British ship *Challenger*, which is making a voyage of exploration and scientific discovery around the world, was last heard from at St. Thomas. Already her officers had furnished demonstrations, by experiment, of many things wonderful in Nature. The New York *Tribune* alludes to several items of important information obtained. The sounding line showed that off from the African coast is a rather level bottom, which deepens gradually to a depth of 3,125 fathoms at about one-third of the way across to the West Indies. Further west five hundred miles there is a comparatively shallow spot a little less than two milos in depth. The dredge brought up from the deepest spots a quantity of dark red clay, containing just enough animal life to prove that life existed at all depths. One of the discoveries of the cruise is a lobster, perfectly transparent. And there is a crustacea without even the trace of an eye, and with delicate little claws. At a short distance from Teneriffe a new kind of white coral was brought up. It was as large and heavy as the pink coral of the Mediterranean, but it was, unfortunately dead. These dredgings have proved to the *Challenger* party's satisfaction that the bottom of the sea, even at great depths, is not so smooth and free from rock as it has been supposed.

A Good Yield of Corn.

138,000 Pounds of Shelled Corn from 26 Aacres—110 Bushels to the Acre.

Mr. James W. Layman, a young farmer from Minneapolis, Hennepin conuty, Minnesota, who was enconraged by his brother to come to California as the paradise for those who till the soil, arrived in Los Angeles county on the 22d of April, 1871, and immediately selected a little piece of ground about five miles from Santa Anna; he secured 28 acres for $21.50 an acre, and commenced to build a house. Thongh the season was too far advanced to undertake to farm his land thoroughly, he put in enough seed to get a supply of corn for the next year. Finding that the average rain-fall was light in his section, he joined in a company of ten and bought tools for boring artesian wells; after sinking 76 feet he found a good flowing well.

He was now fixed for raising corn, and

In February He Commenced Planting,

Partly as an experiment to find out the best time; he concluded to do the bulk of his planting in April, and finished up in May, having put in twenty-six acres (two acres being reserved for grass and garden). The work consisted in preparing the ground, for he did no hoeing nor weeding, nor working after the planting, except to pull the suckers on about five acres. This work he did alone. He gathered his crop in eighty days, with the help of a hired man, and now he shows the result: The shelled corn from the twenty-six acres weighs 138,000 pounds, equal to 110 bushels to the acre! Pretty good work for a young farmer who looks as if he had not reached his twenty-fifth year.

This result was produced, as above stated, by

Skill in Preparing the Ground,

The nsual after-work being omitted, except in pulling the suckers from the roots of five acres, and Mr. Layman thinks he could have increased his crop very materially by going through the whole field in that way. The neighbors langhed while he was working the gronnd, but they don't laugh now. Our young farmer is willing that his old Minnesota neighbors shall know of this land of plenty, as in that country they think fifteen bushels to the acre a fair average; and he is willing to let others participate in his good fortune.

The corn is warehoused with Bennett & Page, of this city. An ear as thick as a man's arm has been left at the *Alta* office as a specimen of the crop. The stalks averaged fourteen feet in hight.

The land selected was bought from the agent of Mr. James McFadden. It is low, damp land (the neighborhood is called Gospel Swamp), and had neither rain nor irrigation during the growth of the corn.

Eight Crops of Alfalfa in a Year!

Mr. Layman wanted hay for his horses, and on the 15th of May, 1872, he put in an acre of alfalfa, which he has now cut eight times, each time except the first, getting a ton and a half of dry hay, and the grass was ready to cut again when he left home.—*Alta of May 2d.*

We always dislike to hurt a good story as well told as the above, and particularly when the same is favorable to California; at the same time the correction of a palpable error is always in order. If we divide the 138,000 pounds by 56, the weight in pounds of a standard bushel of corn in this State, we get 2,464 bushels and a fraction. Then if we divide this amount by 26—the number of acres—we arrive at the true yield per acre in bushels, namely, 94 and a fraction instead of 110 bushels.

Even this, is a very handsome yield and we think will be quite satisfactory to those contemplating a removal from a country of four months of storm and wasting winter, to a land of corn and wine, the olive, the fig, the orange and genial, healthful, balmy breezes throughont the year.

The Islands of Santa Cruz Becoming a Desert.—The influence of trees upon rain and atmospheric moisture is shown by the experience of the Island of Santa Cruz, in the West Indies. This is said to have been a garden of freshness, beauty and fertility twenty years ago. It was covered with woods, trees were everywhere abundant and rains were profuse and frequent. The recent visit of a gentleman who had known the island in its palmier days revealed a lamentable change, one-fourth of the island having become an utter desert. The forests and trees had been cut away, rain-falls had ceased, and the process of dessication, beginning at one end of the island, had advanced gradually and irresistibly upon the land, and for seven miles it had become as dry and barren as the sea shore. Honses and plantations had been abandoned, and the advance of desolation was watched by the people wholly unable to prevent it, but knowing, almost to a certainty, the time when their own habitations, their gardens and fresh fields would be a part of the waste. Indeed, the whole island seems doomed to become a desert. This sad result is owing entirely, according to the belief of the inhabitants, to the destruction of the trees upon the island some years ago.

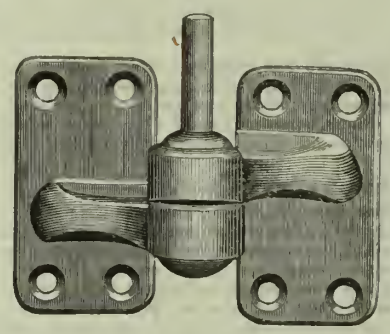
An aged Eastern farmer keeps no barometer, nor does he put his trust in the ground-hog, but he knows when spring approaches, by seeing his sons, who have arrived at manhood, prepare to leave home after a winter of "sponging" on the old man.

Improved Door and Gate Hinges.

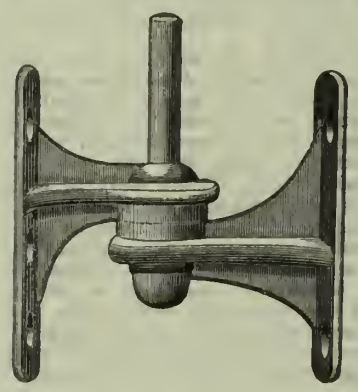
Among the many convenient devices needed by the community has been an efficient door and gate hinge, which could be made cheaply and at the same time be durable and cause the door or gate to close automatically without the intervention of springs, weights or intricate mechanism. Many attempts have been made to fill the want but until recently most of the inventions have either been too complicated and bulky or too expensive to warrant a general introduction. The objections to former devices would seem to be overcome by Norton's door and gate hinge, a recent invention which is shown in the accompanying cuts. It will be perceived at a glance that there is no intricate mechanism in connection with this device. So there is no danger of its getting out of order.

There are two classes of this hinge, the single aud double, both of which are shown. The single hinge is applicable to doors or common garden gates, while the double hinge is peculiarly adapted for use on farm gates, or enclosures where it is desired to have the gate open either way with equal facility. On both classes the principle of an incline is employed by an ingenions mechanical application, so that an arrangement is effected by which the gate shall close by its own gravity. The hinge is constructed with double inclines of unequal base upon each leaf, the apex of the widest inclines being cut off at an angle so that when the gate is opened wide it is held in that position without being locked. If the gate is opened so that it is at a right angle from the post, the construction is such that it will remain so, and can be closed by a gentle touch; but if it is only opened half way it will close by its own gravity. There is no strain on the pintles as they only serve as guides to hold the inclines against each other; while by the employment of inclines of unequal base, the whole weight of the gate is supported by the single-bearing surface of the wide inclines, and is held open without being locked; consequeutly the necessity of lifting it preparatory to closing is avoided.

It will be seen that the hinge is a very simple and practical one, there being no springs or other contrivance to get out of order. In opening or closing a farm gate no lifting is necessary, the hinge performing the operation itself by the gate being pushed in the required direction. There is no danger of its dragging on the ground if the gate post is properly set, and when closed is securely locked by itself. There is no necessity of a latch, for the hinge will keep the gate in its proper position when closed. There is very little friction on the hinge, and no liability for it to get out of order. With a large gate a horseman can pass through either way, and it will close automatically behind him. When a team is to be driven through, by merely opening the gate a little wider it remains open, and a gentle twist will release it, when it will close itself. The gate is not thrown out of line by this device; it merely raises it straight up the hight of the incline when it is opened. For "front gates" it is particularly adapted, since the gate will always close after any one passes throngh. Messrs. Geo. B. Davis and R. H. Magill own the patent right of this invention for this coast, and Mr. Geo. B. Davis, of Alameda, Alameda county, Cal., has exclusive rights in the territory east of the Rocky Mountains. The hinges are cast in different sizes, and their neatness, durability and practical utility will no donbt cause them to be generally introduced. Mr. Davis is having a number of them manufactured in this city, and will shortly make arrangements for turning them out iu large qnantities.



SINGLE-ACTING HINGE.



DOUBLE-ACTING HINGE.

Artesian Wells—Government Work.

Artesian wells are of comparatively recent origin. They flow with a constant stream, and the fountain of water is a subterranean river or lake, upon which a pressure rests sufficient to force water to the surface. It seems certain that the force is in a lake, for these wells are obtained over a greater width of country than any river. Usually the water is nearly soft; some times it is of a mineral character, like that at Saratoga.

In Nothern Illinois are many artesian wells, and some have a bore so large that water power is afforded, as at Chicago. The depth of these wells varies. In Iriqnois County they are from 75 to 100 feet deep, and when tubed above the ground the water rises 20 or 30 feet, furnishing an unvarying supply whether the weather is wet or dry, hot or cold. In other places the depth is great, sometimes 1,000 and 1,500 feet. One well, at St. Louis, built for a sugar refinery, is, we think, over 1,200 feet deep, and the supply is constant and the quality excellent.

This is a subject of national importance. There are six Territories in the interior which cover an extent of 360,000,000 acres of land, and the quality of the soil is excellent, but as no rain falls, so to speak, this land is worthless. It is true that remarkably fine crops are grown by irrigation, but probably not more than 10,000,000 acres can be covered with water. A considerable portion is mountainous, but it is fair to estimate that there remains not less than 200,000,000 acres of excellent land which would support a dense population could it be irrigated.

That artesian wells can be obtained in this region there is every reason to suppose, but the expense of the undertaking is too great for private means, and some wise men hold that this is proper work for the Government, and that it might appropriately be assumed by the Department of Agriculture, especially so for the reason that the abolition of the Franking Privilege destroys the book-making and seed business.

We are happy to announce that Government has appropriated $10,000 toward sinking an artesiau well at Fort Russell, Wyoming, as a military measure, and work is now progressing. As the locatiou is on an elevated plateau, 6,000 feet above the sea level, water may not be obtained as cheaply as at other points. All such experimeuts on the plains should certainly be made where there are fewest difficulties, and where the prospects are most favorable.

Should the money be expended at Fort Russell before water is reached, Congress should promptly vote more money, that a full demonstration may be had. Boring commenced at Denver, Colorado, some years ago, by private parties, but, after going down some 600 feet, the funds were exhausted and work stopped; bnt water rose to within 20 feet of the surface. The location is on a high piece of gronnd overlooking the city. Recently more money has been subscribed, and work has been resumed. —*N. Y. Tribune.*

Walter Brown & Son's Wool Circular.

What They Say on the 1st of May 1873.

"As the present month will bring us to the opening of a new season, it will not be out of place to review the course of the wool market during the past twelve months, in the hope that those who may deal in the next clip will profit by the severe experience of their predecessors.

A little over a year ago, the markets of this country were almost bare of domestic fleeces, and the opinion prevailed that there wonld not be wool enough to run the machinery. All who were dealing in the staple, and many who were slightly acquainted with the business, rushed into the whirlpool of speculation, confident that prices would advance to a point only equalled by the quotations during the war. As a consequence of this excitement, a rapid and unhealthy rise in values was established, which was augmented by manufacturers who were also of the opinion that a wool famine was imminent, and added fnel to the flame by purchasing largely in excess of their immediate wants.

There were also those who believed that at any higher cost of production, their goods would not pay a profit, and in proportion as the price of wool advanced, these manufacturers increased the proportion of cotton, shoddy, etc., to cheapen their goods, nntil the market was flooded with cloths of such inferior quality, that buyers could not be found to take them at any price.

As the clipping season of 1872 approached, the excitement was at its highest; many persons of long experience, as well as outside speculators and country merchants, hurried to the conntry and purchased wools "on the sheep's backs" without regard to price or condition.

Meanwhile the large orders which had gone abroad, brought heavier importations of foreign wools than had been received for many years; and the choice fleeces from Australia met with great favor from our manufacturers as a substitute for our domestic wools.

Thus the new clip of fleece wool came on the market at a time when it was particularly depressed by a surplus of poor goods, and when dealers and manufacturers were just beginning to feel that prices had been forced up to a point which could not be sustained. When to this was added the stringency in monetary circles, it became evident that the tide had turned and prices must settle down to their natural level again. The process at first was slow, but the decline has been uninterrupted, excepting by a temporary reaction immediately after the Bostou fire, which was soon followed by increased dullness, and by New Years the downwsrd current had made snch headway, that those fared best who pressed their wools on the market, accepting the best prices obtainable.

The worst feature established by the indiscriminate purchasing of wools in the country last season, was the encouragement given to growers to put their wools up in poor condition, and in many instances in a fraudulent manner. Such wools have come before our notice many times during the year, and it has been a matter of regret that the loss thereby could not be made to fall upon the perpetrator, instead of on the operator, as is generally the case.

We trust that those who purchase wools in the country during the coming season will take the precaution to keep thoroughly advised of the condition of the Eastern markets, and to buy cautiously, avoiding all ill-conditioned wools, or taking them only at the full deductions.

The market during the past month has ruled throughout in favor of buyers, and the volume of business done falls below the expectations of the trade. There is a general desire on the part of those who are still interested in last season's operations to close up the unsatisfactory year's business, which influences holders to meet the views of manufacturers, who, it may be added, continue to buy with great caution and only for their necessities. We do not look for any immediate material change in rates, but see no reason to expect any improvement in prices. An increased ease in money may tend to sustain prices, but we are now so near the clip, that with the wool still remaining of last year, and the California and foreign wool in market and arriving, there is no danger of any scarcity, and little chance for reaction in the market."

Price Current of Wool at New York May 1st, 1873: California.—Spring clip, fine 26@31; Spring clip, medium 25@30; Spring clip, low grades and burry 21@25; Fall clip, A 1 20@24; Fall clip, low grades and burry 17@20.

The Austin, Texas, State *Gazette*, says: "The frost has beeu more destructive than we had supposed. Planters in many localities are engaged in replantiing their corn, and it is feared the fruit crop has been greatly damaged.

Useful Information.

Position of a Residence.—Honses on streets running nearly north and south are far preferable to those located on those going east and west in a sanitsry estimate. In the first, here at the north of the eqnator, the sun shines brilliantly in the forenoon on the front, and with nearly equal force in the afternoon on the rear. Thus dampness is expelled and the whole edifice is dry and the air far purer for its solar exposure. If a honse is on an east and west street, those fronting north are decidely the hest for a residence, hecause the sun's action on the yard, the kitchen, and usnal regions of neglected accumnlations, purifies and modifies the hnmid atmosphere that is sure to predominate in yards and the back side of houses whose resr is north of the street Thus circumstanced, the hsck rooms are never so pleasant, cheerful or economically warmed in winter or ventilated in summer, as when on the south side. Opening on the street, the frame of each gets both light and air by reason of the freqnent swing of the front door. Here is a law of health in a nntshell.

"Limited."—As the meaning of this word as applied to English corporations is not generally understood, the following definition may he of interest. In England they have a limited liability Aot, by virtue of which, shareholders in a oorporation are exempted from all liability for the debts of an incorporation beyond the sum of their shares. A similar law exists in many of our States, but in England it is customsry for snbscribers to the stock of a corporation, to pay their snbscriptions in installments, and under the law they are only bonnd for the amonnt remaining nnpaid. Hence the nse of the terms "paid" or "unpaid" in their stock report, as either shows the extent of the liability of the company. The term "limited" is simply used to denote that the shareholders of an incorporation, are only liable for its debts, to the amount of their unpaid subscriptions, as distinguished from incorporations on the old individual responsibility plan.

Where Chloroform Comes From.—We are indebted to the insect tribe for chloroform, one of the most powerful agents in alleviating pain. The little ant contains a substance called formic acid, about which old Johu Ray and Martin Lester corresponded a century ago; and they found that it contained an acid; and so it got into books as formic acid. It was found to be composed of a compound radical formyle, and three atoms of oxygen. Dumas suhstituted chlorine for the oxygen, and thus obtained tirchloride of formyle, which is chloroform. Then the Americans found that either was capable of taking away all sensations of the human body; and Dr. Simpson of Edinburg, found that tirchloride of formyle was more thoroughly adapted for this purpose than even either. All this has arisen from a study of the habits of insects.

The Merchant Fleets of the World.—With all our talk about the decline of American shipping, our merchant marine stands first in the world in number of ships, as we learn from the following, whioh we clip from an English paper:—In an appendix to a memorandum by the German Government upon its navy is the following estimate of the numbers of the merchant ships of the principal powers in 1869; —United States of America, 26,393; Great Britain, 26,367; Italy, 18,822; France, 15,778; Norway, 6,883; Greece, 5,512; Germany, 5,510; Sweden, 3,357; Austro-Hungary, 3,114; Denmark, 2,853; Russia, 2,648; Turkey, 2,200; Spain, 1,414. The figures since 1869 have if anything raised in our favor.

A Lucky Hit.—A young man of the name of Hicks, recently conceived the idea of dipping matches, after they were tipped, in paraffine, so aa to protect them from moisture. For this improvement, we are told, he now receives from a well-known match manufacturing establishment in New York, an income of about ten dollars per day. Matches thus prepared, are said to ignite readily, after having lain in a basin of water an entire night.

A New Alloy for Dentist's Use.—According to C. Saner, a dentist of Berlin, an excellent solder for dentist'a use may be prepared by fusing together in a Hessian crucihle, 2.9 parts gold, 0.1 part platinum, 2.0 parts copper, and adding to the fused alloy 10 parts of aluminum fused under charcoal. This alloy he claims to be free from the disadvantages of all previously employed compounds of aluminum.

Alabastar ornaments may he imitated by brnshing over plaster of Paris models with spermaceti, white wax, or a mixture of the two, or by steeping the models in the warm mixture. Or instead of this process, they may be brushed over several times with white of egg, allowing each coating sufficient time to dry. Only models made of the finest plastor are suited for these processes.

Working Green Wood.—A correspondent of the *Scientific American* says: Some of my brother wood-workers may not know that the difficulty of finishing a small piece of green wood, as is sometimes necessary, may he overcome by acorching the piece after it is shaped out. A few lighted shavings will do, and you can then file and sandpaper without trouble.

Bleaching Wax.—Wax is freed from its impnrities and hleached by melting it with hot water or steam in a tinned copper or wooden vessel, letting it settle, running off clear supernatant oily-looking liquid into an ohlong trongh with a line of holes in its hottom, so as to distribute it upon horizontal wooden cylinders, madэ to revolve half immersed in cold water, and then exposing the thin ribhons or films thus obtained to the blanching action of air, light and moisture. For this pnrpose the rihhons laid upon long webs of canvas stretched horizontally between standards, two feet above the surface of a sheltered field, having a free exposure to the sunheams. Here they are frequently turned over and covered by nets to prevent their being blown away by winds, and watered from time to time. Whenever the color of the wax seems stationsry, it is collected, remelted, and thrown again into ribbons upon the wet cylinder, in order to present new surfaces to the blanching operation. If the weather proves favorahle, the wax eventually loses its yellow tint. Neither chlorine, not even the chlorides of lime and alkalies, can he employed with advantage to hleach wax, because they render it brittle and impair its hurning qualities.

Good Health.

The Man of Long Life.

The *Scientific American* describes him as follows: He has a proper and well-proportioned stature, without, however, being too tall. He is rather of the middle size, and somewhat thick set. His complexion is not too florid; at any rate, too much ruddiness in yonth is seldom a sign of longevity. His hair approsches rather to the fsir than the black; his skin is strong, but not too rough. His head is not too big; he has large veins at the extremities, and his shoulders are rather round than flst. His neck is not too long; his abdomen does not project; and his hands are large, but not too deeply cleft. His foot is rather thick than long; and his legs are firm and round. He has also a hroad, arched chest, a strong voice, and the faculty of retaining his breath for a long time without difficulty. In general, there is a complete harmony in all hia parts. His senses are good, hut not too delicate; his pulse is slow and regular.

His stomach is excellent, his appetite good, and his digestion easy. The joys of the table are to him of importance; they tune his mind to serenity, and his soul partakes in the pleasure which they communicate. He does not eat merely for the pleasure of eating, but each meal is an hour of daily festivity; a kind of delight, attended with this advantsge, in regard to others, that it does not make him poorer, but richer. He eats slowly, and has not too mnch thirst. Too much thirst is always a sign of rapid self-consumption.

In general, he is serene, loquacious, active, susceptihle of joy, love and hope; but insensible to the impression of hatred, anger and avarice. His passions never become too violent or destructive. If he ever gives way to anger, he experiences rather a useful glow of warmth, an artificial and gentle fever without an overflow of the bile. He is fond also of employment, particularly calm meditation and agreeable speculations, is an optimist, a friend to Nature and domestic felicity, has no thirst after honors or riches, and banishes all thoughts of tomorrow."

Upon the above the *Science of Health* comments as followa:—"This pictnre is generally correct. The complexion, however, has nothing to do with it. Brunettes and blondes may be equally long-lived. There are fair-haired races and dark-haired rsces of equal vitality; nor can it be proved that the one outlives the other. As to "hanishing all thoughts of the morrow," we mnst also dissent. A prudent man lays in food and fnel for fnture use; he also plows and plants to procure crops; but he need not worry over them."

Something New About Oysters.

Most people know that a dozen or two of raw oysters, more or less, very seldom will produce a feeling of satiety or oppression at the stomach. There is a special reason for this, not known commonly to the publio, nor indeed to physicians.

It is that raw, almost alive oysters, contain their own gastric juice, ready, in fact to digest themselves.

Recently, I have been trying experiments on the artificial digestion of food, and among other matters, my attention was directed to oysters. They were disposed of with singular rapidity, and, carrying investigation still further, I have been able, by actual experiment, to demonstrate that oy-ters direct from the shell, when submitted to conditions analogous to that in which they would be placed in the human stomach, and without any addition, aro positively able to digest a great portion of their own mass.

While being cooked, however, their gastric juice is destroyed by the temperature, and they are then only like any other light food, but if boiled long, their alhumen becomes hard and dense, and less easy of digestion. People with weak stomachs, may hence take comfort in the reflection, that there is one article of diet, which they may usually indulge in without fear of after trouble, namely, fresh raw oysters, which, happily, are provided with an assistant to help them in their solution.—*Scientific American.*

Health of Farmers.

Farmers have unequalled natural advantages for health, strength and longevity. The statistics of disease and the tables of mortality, however, are agsinst them. This is not due to their vocation, but to their misuses of it. No clsss, as a whole, is probably so ntterly reckless of health conditions. So fsr as our acquaintance with the hsbits of the farmers is concerned—and it has heen extensive—it compels the conclusion that, as a rule, the dietetic habits of the farmers are worse than those of any other class, who have the means of choosing for themselves.

Fried dishes several times a dsy, with several fried articles at each of the three meals, is one of their common dietetic abominations; dried beef, old cheese, and pickles are among the common relishes, while lard and saleratus make their richer dainties infectious and caustic. We have seen on a farmer's table, fried pork-fried eggs, fried potatoes and fried griddle-cskes for breakfast; fried ham, fried hominy and fried parsnips for dinner, and fried sausages and fried doughnuts for supper—all the frying done in lard.

No class is so troubled with canker, erysipelas, tumors, csncers, snd humors, as farmers; and the excessive use of pork, lard, fine flour, rich cakes, and gressy pastry, are enough to sccount for it. In dietetic hsbits, our farmers are sadly misled hy the agricultural journals, nearly all of which pander to their prejudices and flatt·r their morbid appetites by recommending and commending swine-breeding and pork-eating, while they fill their kitchen-column with recipes for making "rich and palatable" puddings, pies, cakes, and other complicated dishes, which no stomach ever carried inside of a human hody conld long tolerate without death or dyspepsia.

The essential need of our farmers is plain, wholesome food, properly cooked. This would give them much more available power for work, relieve them of many of the distresses and expenses of sickness, add many years to their life, and render old age "green" and normal instead of dry and decrepid, as it is in most cases nnder existing habits.—*Science of Health.*

Deaths from Poisonous Wall-paper.

The Springfield *Republican* records the recent death of Rev. P. Shehan, of Hinsdale, Mass., from poison hy arsenic derived from the wall-paper of the sleeping apartment of the deceased. The paper was tinted with Paris green. The use of arsenical colors for snch purposes should be by law prohibited.

Cases of poisoning from paper hangings are becoming quite freqnent. Great numbers of cases, more or less severe are reported, althongh but few prove fatal. No doubt many deaths have heretofore occurred from an ignorance of the causo, and a cousequent continous exposure, when now more caution is observed, and proper remedies applied. One case was reported a few years aince, in England, where four children died successively within two months, in one family, and the cause was not suspected until after the last death, when arsenic waa found in the stomach on a *post mortem* examination. The wall paper on the house was then carefully examined, and it was found that the color was loosely applied without any protective glazing that it readily rubbed off at the slightest touch and then grains of arsenic were obtained from a square foot of the paper. The children all died with symptoms of having been poisoned.

We are told that greens are not the only colors which contain arsenic, nor wall-paper the only fabric colored with arsenical pigments. A correspondent of the *Chemical News*, who is in a positiou to know, states that the French nse the following-named pigments, containing arsenic, in calico printing, and that they are eqnally suitable, and doubtless used, in the color of paper-hangings: *Light scarlet pigment* contained alumina, arsenious oxide, and aurine; *scarlet ponceau* contained carhonate of lime in addition to the above ingredients; *dark green*, a preparation of aniline green and arsenious oxide; *steam chocolate* and *catchu pigment*, hoth contained arsenious oxide. Hallwachs has demonstrated the presence of arsenio in red, as well as in green-colored wall-paper.

Chronio Diarrhea.—A lady says that she has succeeded in several instances in curing cases of chronic diarrhea, after many other prescriptions had failed by using the following preparation: Take of good brandy, say half a teacup; burn it hy setting it on fire with a match; let it hurn till the cup gets hot; then take half a teaspoon ground cinnamon; half a nutmeg, grated, and add a very little cloves; pour on them half a teacup of boiling water, and fill up the cup with crushed or granulated sugar; then when each have cooled sufficiently, put in a bottle and use occasionally, or until you prove its value, or otherwise. I found it the best remedy I ever used, and I am the mother of eight children.

Remedy for Corns.—A correspondent of *Rural New Yorker* says: Bathe the feet in tepid water, to soften the corns; pare these off very closely with a sharp knife; then rub on well green peach tree leaves; when, after continuing the rubhing once or twice a day, the corns will disappear.

Domestic Economy.

Oatmeal, Bone, and Muscle.—Liebig has shown that oatmeal is almost as nutritious as the very best English heef, and that it is richer than wheaten hread in the elements that go to form bone and muscle. Professor Forhes, of Edinburgh, duriug some twenty years, measured the breadth and hight, and also tested the strength of hoth the arms and loins of the students in the University—a very numerous class, and of various nationalities, drawn to Edinhurgh hy the fame of his teaching. He found that, in hight, hresdth of chest and shoulders, and strength of arms and loins, the Belgians were at the hottom of the list; a little above them, the French; very much higher, the English; and highest of all, the Scotch and Scotch-Irish, from Ulster, who, like the natives of Scotland, are fed in their early years with at least one meal a day of good milk and good oatmeal porridge.

Speaking of oatmeal, an exchsnge remarks that a very good drink is made by putting about two spoonfuls of the meal into a tumbler of water. The Western hunters and trappers consider it the best of drinks, as it is at once nourishing, unstimulsting, and satisfving. It is popular in the Brooklyn Navy Yard, two and a half pounds of oatmeal heing put into a pail of moderately cool wster. It is much better than any of the ordinary mixtures of vinegar and molasses with water which farmers use in the haying or hsrvest field.—*Boston Jour. Chemistry*

To Wash Black Calico.—Make a clesn snds of soft water, wash the calico through it; then pour hoiling wster into sweet, skimmed milk till there are equal parts of each; turn the calico wrong-side-out and rinse through this compound. Dry in the shade; sprinkle, and when moist through, iron on the wrong side, and I think it will give satisfsction.

Another Way.—Put the dress in the washing machine or tuh and pour boiling hot suds upon it; ruh it out and, if necessary, rub again on the washboard; then have some warm, hard water, with a little salt in it; rinse the dress and dry immediately. Let the water cool before rubhing it out. All that is needed to insure success is to have the water boiling hot-when first applied.

Boiled Indian Pudding.—A correspondent of the *Rural New Yorker* gives the following and pronounces it "good:" One pint Indian meal; one pint thick, sour milk; one cup sour cream; one teaspoonful soda, and salt, unless boiled in pork water, which improves it very much for some—I prefer clear water. Stir into the hatter, fruit; raspberries are hest—dried or fresh. If sour fruit is used, a trifle more soda is necessary. Put into a bag, and tie firmly, allowing two to three inches for it to swell Boil one hour; a little over will not hnrt, but is not needed. The water should be boiling when the pudding is put in, and be kept boiling. Serve with cream and sugar.

To Clean Cloth.—Grease may be removed from cloth with a mixture of curd soap dissolved in water and oxgall. This should be well rubbed in till spots of grease, etc., disappear. Then sponge over with warm water, to which a little soap and more oxgall have been added. Rinse in clean water, and when nearly dry press with a hot iron on the wrong side. Fuller's earth may be added to the soap mixture for hlack cloth, and light clothes may be cleaned by merely covering them with a paste of pipe-clay and water, letting it dry, and then hrushing it off with a clean brush.

Brine for Pickling Pork.—Persons who have tested the following, commend it as giving the hest pickled pork that they have ever eaten: 8 pounds of salt, 2 ounces of saltpetre, 3 ounces of soda, 2 pounds of brown sugar, to each 100 pounds of pork or hams. The meat must be kept carefully under the brine. If this is done, the ahove will be found to be salt enough for keeping the meat well.

High Prices at the Diamond Fields.—A Cape Town correspondent says: "Talk ahout high prices of provisions at home! Don't mention them after the almost prohibitive prices for almost every article of food at the Diamond Fields. Had the philanthropic Soyer heen living, I thiuk he would have made a trip to West Griqualand, for the purpose of working a gastronomic reform amongst the digging community. Here are a few specimens ot the prices (or rather extortions) at the New Rush (De Beers): Turkeys, each £2 4s; ducks, 7s 6d; geese, 10s; fowls, 5s; pork, from 1s to 2s per pound; eggs, 5s per doz; butter, 5s per pound; two small cabbages recently sold for 5s each; hut even if they had been drum-head cabhages I think the diggers would have been justified in trying the vendor by a "drum-head" Court martial. At Du Toit's Pan, a small dish of green peas fetched 8s, and grapes 1s a bunch! so that you will perceive we in South Africa can rival the London butchers and poulterers for dear meat and poultry, and Covent Garden Market for expensive vegetahles and fruit. However, the Diamond Fields form an exceptional case. Even the very fowls seem to live extravagantly, and to he impressed with the greed of gain, in proof of wh.ch I may mention that lately a fowl at the New Rush was found to contain a one-carat diamond, a pair of gold earrings, and a number ot small crystals. Surely, wringing the neck of such a valuable fowl as that, would seem to be as mad an act as that committed—according to the legend—of killing the goose that laid the golden eggs."

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SAN FRANCISCO:

Saturday, May 17, 1873.

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WAGONS.—The prices charged by E. K. Ferris & Co., of Sacramento, for the La Belle wagons will be found in our advertising department, to which we would call the attention of farmers.

ON FILE.—About Barren Fig Trees; The Thrush and Mocking Bird; The Late Severe Frosts; Wayside Chat; The Bees; Parsdise Valley; Sutter County; Cowslip.

EXEMPT FROM FROST.—We have a communication on hand that points to a locality in California of considerable extent, that nearly if not entirely escaped the late, severe, spring frost visitation. If the fact can be fully established, it will interest many; not only those desirous of purchasing land for the culture of tropical and other fruits, but those also holding the same for sale. The article will appear in our next.

ARTIFICIAL MEMORY.—We have in hand a pamphlet of some seventy-five pages that purports to give a full and effective method of making a bad memory good and a good memory better. It is gotten up by Wm. Nemos, Prof. of artificial memory. Its study, it is claimed, will enable any one to use the natural memory to wonderful advantage, as well as to perform the extraordinary feats of memory with which Mnemonists astonish the world. For sale by A. L. Bancroft & Company, San Francisco; price one dollar.

CHEAP WATER PIPE.—Persons who wish to obtain a supply of water pipe for irrigating or other purposes, are referred to a notice in our advertising columns.

The Farmers' Movement.

The present organized movement of the farmers, throughout the country, is creating no little sensation, especially among the politicians, capitalists and "ring men." When the movement was first commenced satirical smiles overspread the faces of managing politicians and manipulators of capital. It was confidentially asserted that the necessary concert of action and executive ability could never be found among farmers to carry on any extended organization, having for its object the combination of either capital or political power. They had no leaders; in fact they lacked the essential qualities of leadership.

But recent events have changed opinion in this direction, and the faces of politicians, railroad managers and capitalists are begining to assume a more thoughtful aspect. Indifference to the power and influence of the farmers and their capacity to combine for concerted action is no longer manifested, anywhere; but rather a feeling of fear is uppermost, and leading journals and calculating politicians are gravely considering the new aspect of affairs. Recent events have shown, not only farmers but all other substantial industries, as well, that there is not so much reverence to be attached to the character of our great men—our leading politicians and capitalists—as has heretofore been generally believed. An analysis of their actions, as shown by the Mobilier and other recent investigations proves that they are neither lacking in the frailties of human nature, or specially gifted above other men in wisdom; and the opinion is gaining ground, that the farmers, if they might so desire, might readily find in their own ranks men quite as well fitted, by education and natural abilities, for public trust as even the most exalted of those now in places of honor and power.

What the Farmers are Doing.

In all the great farming States of the Union the work of organization is rapidly going on. Clubs and Granges—town, county and state organizations are coming into existence as if by magic, and constitute the machinery by which the farmers propose to wield the power and influence which legimately belongs to them by virtue of their position as the most important and numerous class of producers in the land, and the only representatives of the real productive capital of the country.

In Iowa a convention of the Patrons of Husbandry was lately held at which 800 delegates were present, representing a membership of about 35,000, from 778 Granges. Indiana, Illinois and Ohio are equally well organized. There are already some 200 Granges in Missouri, and a State Grange will be organized there on Tuesday next. It is said that the entire order in the United States now numbers 800,000 votes.

Thus far, in California, *nine* Granges have been organized, and Mr. W. H. Baxter, the Deputy Grand Master for this State, informs us that he finds it utterly imposible to meet the calls made upon him, for the organization of new Granges as fast as desired. On Monday last he had *eleven* different engagements, and was in correspondence with several other localities where the farmers were seeking for information as to how to proceed in the matter of organization.

Both in the Eastern States and here, Farmers' Clubs seem to be stepping stones for the more thorough and systematic organization attainable through the secret order of the Patrons of Husbandry.

What are the Granges Doing.

The order is growing in popularity, everywhere, and the reports received of benefits to the farming classes in those States and sections where it has become well established are calculated to recommend it more and more to general acceptance. The Granges devote their labors entirely to the promotion of agricultural interests, as they are effected in any and every form. In Iowa they give their attention not only to the best modes of farming and the selection of the best seeds; but also to the manufacture and sale of agricultural implements, the regulation of freights, the purchase and management of grain elevators, etc. During the last year they have controlled the shipment of not less than *five million bushels* of grain, and an immense number of cattle and hogs. It is estimated that the members of the Granges of the State have saved, during the year, not less than $365,000 in the purchase of agricultural implements alone, and from ten to forty per cent. in the cost of commissions and transportation. A large portion of these savings has been effected by doing away with the unnecessary number of middlemen heretofore employed, and who, by this release from such employment, are enabled to become producers.

In Illinois and Indiana the great work of the Granges seems to have consisted in a direct attack upon the general railroad management of those States—the objective point being a reduction of the exorbitant rates of transportation. The railroad men have not been reached so directly through the ballot-box as by the great display of power which the farmers have been able to make through their organizations.

Politics is not the legitimate end of either Clubs or Granges, but the result realized in Indiana and Illinois have shown that when the farmers become sufficiently strong in their organizations to cope successfully with monopolies and politicians, all who are antagonistic to them will be very much like Col. Scott's coon—they will be ready to come down without drawing the fire of their opponents. The railroad magnates of the States named have already signified their intention to yield gracefully to the pressure, and are willing to meet the farmers on fair grounds, and transport their produce at greatly reduced rates. We also understand that the managers of the Central Pacific Railroad, in this State, in view, no doubt, of the movement now being insugurated here, have recently given assurance to the farmers of the San Joaquin and other localities that they will make material reductions from prices heretofore charged for the movement of the crop now maturing. They have also given assurances that the needs and convenience of the farmers along their various lines will be carefully considered, and all reasonable accommodations accorded them.

The farmers are not a class of people that ask for unreasonable privileges and accommodations, or that will ever seek to exert an undue influence over politicians or legislatures; but they will, no doubt, at the proper time, appear before candidates for legislative honors, and ask that their interests be duly respected in the enactment and modifications of laws, and suitable bills will probably be framed and submitted to which assent must be given or candidates will meet with an organized opposition, which will most certainly end in their defeat.

It may be that the lateness of the movement in this State, may render concerted action measurably inoperative at the coming election; but it will be sufficient to put our public servants on their good behavior, by the certainty of future defeat which will be threatened to any who may misuse their power, or manifest an undue lack of attention to the political needs of the great and growing industry of the Pacific Coast.

The Farmers as Politicians.

As some of the clubs in this State have suggested the idea of separate political nominations for the farmers; fears have been entertained in some quarters that the organization here might be converted into one, more especially of a political character, and out of which much mischief might arise. Such fears are groundless. The interests of the farmers are always in common with those of the great masses of the community. They can be antagonistic to no others than rings or combinations which are seeking for unjust gains at the expense of the masses. The better portion of every community will always be found working with the farmers, who with their present organization, can make the direct vote accomplish far more than mere party machinery. The farmers must and will work irrespective of any political party or parties. Their aim will be to secure the nomination of honest, strait-forward men, such as will strike a death blow at the fraud and corruption which has been for many years creeping into our government through the centralization and abuse of capital.

The double dealing and trickery of politicians cannot be often repeated in the presence of, or in defiance of such an organization as will soon be at work among the farmers on this coast. That organization will give political demagogues short shrift, in which act they will be heartily seconded by the better portions of all parties.

But after all we may assume, as a general truth, the fact that

The Chief Greivances of the Farmer are not Political,

And that the remedy for them lays not in the way of political action. The simple organization of the farmers, whereby a joint expression of opinion may be obtained, will, by the simple justice of their demands, secure for them all that they need in the way of political action.

The greatest disadvantage under which farmers labor, and their real difficulties are merely of a financial nature, and have arisen and are perpetuated from year to year through the lack of some such organization as they now possess, and by which

The Proper Business Relations

May be established with the trading, banking, carrying, manufacturing and commercial classes. This advantage may now be easily secured by a careful, steady and skillful adjustment of these relations. The farmers have ever, naturally, occupied a vantage ground as to all other business claims; but they have heretofore allowed themselves to be outgeneralled, and flanked right and left. Still they have not been demolished or overcome; and that they do not propose to surrender is sufficiently shown by the events of the day.

Let the farmers remain united, as now; let them continue to organize, keep their own counsels and show to the country the influence and power of their organization; let them cast their votes, in all things pertaining to their special interests, as individuals, irrespective of politicians and political organizations and in accordance with the matured and united judgement of their order: let them remember that money, honestly and judiciously handled, moves the world, and that it is the main power that can be made available for leading them out of their present depression, and placing our agricultural industries upon their proper, their original and their rightful basis, and all will be well, and our farmers will secure that percentage of profit on their labor and products which they are entitled to, by all natural and social laws.

Capital and Credit.

In order to make a proper use of money the farmers of course need capital and credit, and they, of all classes in the community, have at their command an abundance of these very things of prime necessity, if they will only rightly employ the means at their disposal for developing them.

The real estate of this and all other agricultural communities is the real basis of all moveable capital and credit, both at home and abroad—not real estate in the cities and larger towns, which is only used as a foundation for unproductive stores and warehouses and expensive and extravagant dwellings; but the real estate of the country—the farming lands, without which, as a basis, cities could not come into existence—which, in connection with the labor of the farmer, produces the largest share and almost all of that which feeds and clothes the world. This productive real estate belongs to and is in possession of the farmers. With this real estate properly handled and put in shape to create security for money, the farmers of this State can command the capital wherewith they may buy the Bank of California and all other banks in San Francisco and the State, to say nothing of buying the sacks to hold their grain, to ship and sell that grain in the best markets of the world. With this real estate in the hands of a competent and careful financial agency, such as is already in contemplation here, the farmers may reduce the interest on money in California nearly to the level of the low rates of interest in Europe, and bring our present money kings, railroad magnates and their dependencies completely within their power, where they properly belong.

All these advantages and more may be realized by the farmers, through the organizations of which they are now possessed, without seeking either aid or advice from demagogues or politicians and without dipping at all into the filthy pool of politics, into which if they plunge they will find no healthy fish, and nothing indeed of the real elements of material success.

The Unbranning of Wheat.

To get at a proper understanding of the object of unbranning wheat, we should know something of the physical constituents of a single grain; hence we observe, that it has for its external coating a substance composed of silex (flint) and woody fibre, which is wholly innutritious, indigestible and unfavorable to health. This coat is quite firmly united to the gluten coat, and this envelopes the starch which forms the centre of the berry.

By the present mode of milling, in the effort to get rid of the outer coat, the largest part of the gluten cost, containing chiefly the nutritive principle, is lost to man and given to the inferior animals. This involves an enormous loss of both health and nutriment to the human family. The unbranning process saves all this loss.

By an entirely new process known as "Bentz's Unbranning Process," the outer fibrous coating is entirely removed before milling the grain for its nutritive products. Then when milled, the entire product is nutritious and can be appropriated to the support of the human family instead of dividing the same with animals of lower grades. There is another advantage in unbranning wheat, in the fact that it directly increases its commercial value for export. We have samples in our possession of the same wheat, branned and unbranned and no one from inspection, can deny but that the relative value of the same is increased by the unbranning process.

The present system of milling is entirely done away with, as any ordinary warehouse is ample for its accommodation. The machinery for a mill to turn out from 60 to 75 barrels per day, can be gotten up for less than $3,000; the burrs used are 11 and 14 inches in diameter, and the entire bolting arrangement is but four feet long, and yet it is claimed, fully as efficient as any in the larger, ordinary mills.

We would therefore call the attention of millers and capitalists to this new process, the agency for which is in the hands of Mr. C. M. Richardson of this city, and it is his desire to introduce the invention to the Pacific States, and parties desiring further information can apply to him, care of Dewey & Co., San Francisco.

HORTICULTURE.

Shrubbery.

No garden is perfect without a due proportion of shrubbery. It is not the mere crowding together of a lot of bnshes of various kinds, that gives a satisfactory result in the immediate vicinity of a dwelling; such does well enough in the tangled wild thickets or the natural wood, but here we want an improved view, a softening down, that all may be in complete keeping with art and skill; and in order to produce such an effeot, each object, whether it stands alone on the lawn or grass-plat, or becomes a counterpart in the shrubbery ought to have room enough to form a natural outline. Let each occupy its own place and position, have the tall growers in the background, that the smaller ones may show to advantage, aud do not plant any of them so near the walks as to interfere with the general character, or be in the way of every lady's dress skirt as she travels along, or glides around the inclined curve.

It is true that the general planting is nearly over this season, and but little more will be done except with young evergreens, shrubs and plants, already in tubs or pots. But there are always some parties who are oompelled to be late in their improvements in lots or grounds. To these, then, at least, these hints will apply; or they may make a note of them till the rainy season again arrives in the fall or winter.

It is quite lamentable, to see the many examples both in cities and in the country, where the most beautiful shrubs and trees are rendered uninviting, and even at times become an eyesore, simply from the want of attention, at first planting, to their respective habits, modes of growth, and the hight they will eventually attain. Frequently it is the case that a large timber tree of the most symmetrical growth is placed so near the honse, that its outline is nowhere to be seen, excepting at the outside of the premises, and, even then, it is only distinguishable by stretching its neck, like a drowning man to get a little air, while the low growing shrub is either smothered alongside of it, or removed to the outside boundary, and if you would see anything particularly interesting in either, you must go to the extremes of or beyond the limits of your own property.

It only requires a moment's reflection to conceive, when a very ugly and inappropriate result is produced in such cases, how much disappointment might have been avoided, if more attention had been bestowed npon the habits and relative capacity of each specimen, by having placed them in positions, from which their various pretensions to regard, could have been seen to advantage.

Now it is best to take time in the oontemplated arrangements of new grounds to fore-cast these preliminaries, and a little thought ahead may save much after vexation.

A few words may not be ont of place with respect to the indiscriminate disposition of evergreens amongst deciduous shrnbs or trees, and that, too, often without any regard to the habits of the closest neighbors; fancy a rigid pyramidal silver fir, fixed in close proximity with a naked-branched weeping willow, reminding one of a starched dandy, and lamenting hypochondriacism, struggling shoulder to shoulder; yet each individually, or in company with others more closely related, and planted in proper places are beautiful objects, and would give most pleasing sensations. Again, the Japan Euonymus or the Tree Box, of more humble growth, may be seen standing in full dress amongst nakedness, and appearing as if they were only accidental residents; while an increased number of their own kind, in association with others of a similar character, would form a most lovely featnre in the way of masses, or as undulating boundaries to the lawn, and which would not only be a great improvement, but assist in stripping old Boreas of half his terrors around the country dwelling.

As we said before, let us study well all these most desirable matters; let us well and thoronghly digest and consider them, before we hastily and inconsiderately plant everything in a jumble and confusion with one another. It would be well even to plan and reflect on these things a year before we have to practice them. In other words let us peruse and take benefit from some of the best works on what is termed English landscape gardening, of which there are now many published—among which Downing's is one of the very best.

Four Valuable Oil Plants.

We intend to introduce and reintroduce certain facts relative to the growing of other products than the everlasting, inevitable wheat crop, until more of our farmers are willing to step out of the old-time ruts of farming and lead off into "paths and pastures new," in the hope that a variety of products and a varied agriculture will ere long more generally prevail than now. We, as a people, are going largely into the culture of oranges and nuts, and it would almost seem as though the orange business might possibly be overdone, inasmuch, as Central America and the Pacific Islands produce largely for exportation and New York and eastern seaports are furnished with good oranges at 3 cents apiece in any quantity, from Europe and the West India Islands.

Still there is a vast interior territory to be supplied, and doubtless the demand will nearly or quite keep pace with or go ahead of the supply. But there are other products whose growth does not seem to keep up with the demand, hence their cost is always relatively higher as compared with cost of production, and among these we instance four valuable vegetable oils, the products of the nuts, seeds or fruits of certain plants or trees, all of exceedingly easy cultivation, and especially adapted to culture in California soils and climates.



OIL PLANTS.

We present the engravings in miniature of sections of the plants yielding the oils alluded to. Fig. 1 is the well known olive that even far back into the times of scriptural history was a celebrated fruit, used as a condiment, or its expressed oil as an agreeable and wholesome food in itself. It is among the oldest of cultivated fruits of which we have any account; so old indeed that its native country is not positively known. The tree is seldom more than twenty feet in hight in European countries, is of a spreading habit, easily cultivated and very long lived.

Fig. 2 is the *Brassica Napus*, from the seeds of which—and other species of *Brassica*, all natives of Europe—is expressed an oil known as Rape seed or Colza oil. The plants are extensively cultivated in the manner usually adopted in the culture of turnips, and raised solely for their value as an oil-yielding plant. The seeds are perfected as with the turnip family, the second year of their growth. The oil is extensively used for machinery and for burning in light-house lamps. The refuse cake is a well known cattle food.

Fig. 3 is the common pea-nut so well known as to need no description here, where the plant and its culture is so well understood. It was originally from Africa, but is now found and cultivated in all warm countries. The fruit, though valuable as an article of food and everywhere eaten, is more valuable for the oil it contains, being good for every purpose for which olive or almond oil is used, and is very frequently substituted for the former, and very largely used in its stead. In many parts of India it is sold as pure olive oil, and for all alimentary purposes is quite as good.

It is said to keep a long time without becoming rancid, and the nut grown in a California climate, yields more oil than when grown under a less favorable one. The trade both in the nuts and the oil, is very large and rapidly increasing, and is extensively distributed over the globe. In many places the nuts when roasted and ground are used as chocolate, and are said to make an excellent substitute for that beverage.

Fig. 4. This is the well known Castor oil plant, *Ricinus Communis*, a native of India, but now widely distributed and cultivated in various parts of the world, but nowhere more successfully than in this country. The uses to which this oil is applied are constantly increasing, and its consumption very great. In tropical countries the *Ricinus* grows to a tree-like size, while in temperate climates it is an annual. It is already somewhat extensively cultivated in California, and is destined to hold considerable rank among our exports at no very distant day. We hope agriculturists will give more attention to a diversity of orchard fruits and field crops.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[REPORTED OFFICIALLY FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., May 13th, 1873.

FOR WEEK ENDING APRIL 29th, 1873.*

FILES.—James B. Johnson, S. F., Cal.

AUTOMATIC GATE.—Joseph P Ponce, assignor to self and John Miller, Mayfield, Cal.

LUBRICATOR.—John Gates, Portland, Oregon.

ORE WASHER. — Thomas Wren, Hamilton, Nevada.

SASH HOLDER.—Elijah Knapt, S. F., Cal.

VESSEL FOR CONTAINING LIQUIDS UNDER PRESSURE.—Samuel Marks, S. F., Cal.

ROTARY STEAM ENGINE. — William C. Stiles, Nevada City, Cal.

CLAMP FOR DENTAL PURPOSES. — Charles E. Blake, S. F., Cal.

TRACTION WHEEL.— Oliver Hyde, Oakland, Cal.

——*The patente are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent businees for Pacific coast inventors transacted with greater security and in much lese time than by any other agency.

Fowls in Oakland---Utilizing Capons.

As soon as the city people get into a region where they see any trees and grass, they become imbued with the idea that they are in the country, and begin to raise flowers and vegetables and discourse learnedly concerning the best breed of chickens to adopt. This latter question is a knotty one, and is discussed at length by small groups of incipient agriculturists on board the Oakland boat, every one of whom has a different theory on the subject. Any one might judge from this that our sister city over the bay was specially interested in chickens—and she is. Every little cottage has its chicken-coop, and, as a general thing, the common fowl is ignored entirely, and fancy stock nourished with care. In consequence of this taste manifested by the people, there are a large number of henneries, where fancy eggs and chickens may be bought by those who desire to indulge their "æsthetic tastes" in this direction.

Some of these places are on quite an extensive scale, and great care is taken by all in keeping the premises in a neat condition, and the fowls are as a consequence healthy and sound. During a recent trip to Oakland we called in at Mr. Fallon's fine place, at the corner of Oak and Seventh streets, at the railroad station, where we saw not only an abundance of beautifnl flowers, trees and shrubs, but a well-arranged and neat hen-yard, filled with all varieties of domestic fowl. Mr. Fallon has enclosed nearly a block of land for his chickens. He has fifteen breeding coops, eaoh twenty-five ft. square, arranged around a square grass plot, in which the chickens from each coop are allowed to roam a short time each day. There are eighteen smaller coops, and six more large ones are now being constructed. Among the different varieties of fowl, we notioed the Gold and Silver-Spangled Hamburgs, Gold and Silver-Spangled Polands, Buff Cochins, Houdans, Partridge Cochins, Light and Dark Bramahs, Black Spanish, Le Fleche, Silks, Game, and Roon and Aylesbury ducks. Everything abont the place was as neat and clean as whitewash and constant care can make it. All the roosts are movable so as to be cleaned easily, and the fowls are all in good condition. One peculiarity we noticed at this place was that capons are used entirely for raising young chicks, they being taken from the hen immediately on their "arrival." Mr. Fallon has nine of these capons trained on purpose, and he assured us that they took the best of care of their little charges. They are kept at work all the time, and the hen wastes no time in taking care of her brood. As soon as one brood is large enough to roost a new one is given to the capon, who seems to consider it his "mission" to take care of the chicks, which he does with assiduity. It is very little trouble to get them in the habit of doing so, Mr. Fallon says, and as they are larger than hens usually are they keep the little ones quite warm. Plenty of green stuff is given to all the fowls, who with plenty of warmth, room, good food and cleanly habitations, are in a superior condition.

A FOWLER STEAM PLOW FOR OREGON.—Mr. R. R. Thompson of Portland, Oregon, we are told has ordered one of Fowler's steam plowing apparatus from England, and it is expected to arrive this summer.



The Housekeeper's Doom.

One day as I wandered I heard a complaining,
And saw a poor woman, the picture of gloom;
She glared at the mud on her door-step (t'was raining),
And this was her wail as she wielded her broom.

"Oh! life is a toil and love is a trouble,
And beauty will fade, and riches will flee;
And pleasures they're scarce, and prices they double,
And nothing is what I should wish it to be.

"There's too much of worriment goes to a bonnet;
There's too much of ironing goes to a shirt;
There's nothing that pays for the time you waste on it;
There's nothing that lasts, but trouble and dirt.

"In March it is mud; it's slush in December;
The Midsummer breezes are loaded with dust;
In Fall the leaves litter; in muggy September,
The wall-papers rot, and the candlesticks rust.

"There are worms in the cherries, and slugs in the roses,
And ants in the sugar, and mice in the pies;
The rubbish of spiders no mortal supposes,
And ravaging roaches and damaging flies.

"With grease and with grime from corner to centre,
Forever at war, and forever alert;
No rest for a day, lest the enemy enter—
I spend my whole life in a struggle with dirt.

"Last night, in my dream, I was stationed forever,
On a little bare isle in the midst of the sea;
My one chance of life, with a ceaseless endeavor,
To sweep off the waves ere they swept over me.

"Alas! 'twas no dream—again I behold it;
I yield; I am helpless my fate to avert—"
She rolled down her sleeves, her apron she folded,
Then lay down and died, and was buried in dirt."

—*Out-of-Door Rhymes.*

The Primitive Religion of Mankind.

The primitive religion of mankind, or that which prevailed in the infancy of the world, was the worship of the heavenly bodies, commonly called Sabeism. Relics of this form of worship are found among all the earliest nations. Among the hosts of heaven the sun was the supreme symbol of deity, while the moon and stars were only secondary in importance. In Egypt, Osirus was the name for the sun, in Tyre it was named Hercules, and in Greece it was called Apolo, this luminary having as many different names as there were nations to offer worship. The Tyrian sun, called Hercules, is represented as "king of glory passing throngh the everlasting gates," (Zodiacal signs). Reference to the same is found in Hebrew scripture, where the sun as king of glory marches through the everlasting gates with the heavenly host. "The LORD is sun and shield." "He looketh from heaven," "He is covered with light," "He is to be praised while he shines," etc. "When he comes out of his chamber as a bridegroom to run a race, from his heart nothing is hid." Thus Deity was supposed to hold his throne in the visible heavens, his glory being represented by the sun; where he rules among the armies of the celestial host and among the inhabitants of the earth.

In conformity with the same idea it was the custom to worship npon the tops of high mountains, at the rising and setting of the sun. The ancient Hebrews practiced this custom, and there were relics of the same among the Persians. It was the custom among the people to go early in the morning in crowds, to pay their devotion to the sun, to whom, upon their altar, there were speres consecrated, resembling the circles of the sun, and when the sun arose these orbs seemed to be inflamed, and to turn around with a great noise. The worshippers had every one a censor in his hand and offered incense to the sun. Supposing the throne of the Almighty to be seated in the sun, they ascended to the tops of the highest mountains to be as near as possible to his presence. In keeping with the idea of the sun being the LORD, matcrial fire was employed as a symbol of the sun, among all nations, and was kept perpetually bnrning in their various temples, it being considered a sign of some great calamity if allowed to go out. It is described in Hebrew records as the fire that shall "ever be bnrning npon the altar: it shall never go out."

In these ancient cnstoms the moon received less attention than the sun, this being of secondary importance, notwithstanding which temples were dedicated to it, and ceremonies were instituted in its honor. The Hebrews burnt offerings to the moon in ancient times, on which occasions the priests blew with silver trumpets, as "a memorial before the LORD."

Star worship is another feature of the primitive form of worship, for the number and beauty of the heavenly bodies, and the silent regularity of their motion were calculated to inspire the mind of man with ideas of a superintending and eternal power. Celebrated temples were dedicated to the seven planets; as also time was divided into weeks of seven days, and these were cosecrated to the seven planets; a system of dividing time which we find among all the early nations—the names for the days differing in different countries.

It is thus we trace the relics of this, the most ancient form of worship; and notwithstanding this was expended upon the various luminaries in the heavens, still it is evident that ideas of one Supreme Creator and Ruler of the universe prevailed among all nations; a visible type of whom was represented by the sun as god of day, while the moon and stars were the visible presence of Deity by night.

These are the relics of a sublime worship which in its primitive purity and simplicity was the natural outgushing of the human heart in thanksgiving, thanksgiving "for the precious things of heaven, for the demand for the deep that conceaLeth beneath, and for the precious fruits brought forth by the sun, and for the precious things brought forth by the moon, and for the chief things of the ancient mountains, and for the precious things of the lasting hills, and for the precious things of the earth, and the fulness thereof."

In all the wonderfnl works of nature man saw and felt GOD'S presence, and simple devotion swelled his heart, inspired by its sublime grandeur, and mysterious gifts; and this primeval religion was exactly adapted to man's primeval life.—*Am. Rural Home.*

Soiled Faces.

It is a startling fact, says the New York *Commercial Advertiser*, that the majority of people's faces are seldom clean. Generally the habit of washing the face in the morning prevails, but with many persons it is the only time in twenty-four hours that this ablution takes place. With some women there exists a prejudice against washing their faces at all. They believe that bathing and rubbing produces eruptions—that the skin of the face is handsomer the less it is washed. Men return from business, and before entering the drawing-room retire to their dressing apartments to "wash their hands and brush their hair," unconscious that their faces are not clean. Ladies come home from a shopping excursion or a drive in the park, and arrange their toilets without touching their faces, except to dust them with powder as a last act of embellishment. We send the children to their nurse to have their faces washed before dinner, or a dozen times daily; but because we are men and women, and have not streaks of black across cheek or nose, we do not question the cleanliness of our faces.

It is taken for granted that the faces of adult creation are clean, unless it be those of machinists, chimney-sweeps or coal heavers. We are certainly impressed with the muddy complexion of Mrs. Slovenly, and remark how sallow Mrs. Slipshood has become, but it does not occur to us that their faces are always soiled. We meet Miss Blank on the promenade, who has risen late and washed her face hurriedly, leaving the sleepy bugs in the corners of her eyes; we exclaim: "Had Miss Blank a clear skin, how pretty she would be!" We should not believe that it was thoroughly washed; that it was usually covered with a mixture of "Oriental Cream" and dust, which, being slept in at night and but half removed in the morning, soon changes the natural purity of the skin.

There is no portion of the body that requires so much care, as to cleanliness, as the face; it is the receptacle for the dust from the room, day and night. It receives the siftings blown from the ash barrels and coal carts, and all impurities in the streets. Specks of oily dandruff from the hair are honrly falling on the face, and the most conservative of us are constantly placing onr faces against something that soils, from the cheek of the little baby, who is the pet of the household, to the shaggy coat of Romp, the dog, whom we stoop to fondle now and then, saying nothing of the kittens who brush against the side of onr faces from the back of onr easy chair twenty times daily, and whom we know to have fleas. (This we will never admit to mamma, for fear of banishment to the woodshed.)

If persons who are otherwise fastidiously nice would be as proportionately particular to keep their faces clean we should see more of the fair, glowing complexions, and less of the yellow faded skins, with sallow lines about the neck. There is nothing that so beautifies the face as its freshness and cleanliness from the frequent use of water, with gentle friction. There is more truth than poetry in the stale observations of persons looking two or three shades whiter after their ablutions. The face is fairer after washing becanse it is cleaner, and when it is not often bathed it is badly soiled. That the face be thoroughly washed at night, with a little fine soap to remove any greasy substance that may have settled in the eyebrows or crevices of the features, is essential for its perfect cleanliness. The eyes require particnlar washing to preserve their beauty and strength of sight. How many persons consider this when they wipe them over once a day with a washrag or sponge? "Cleanliness is next to godliness." Moses' face shown when he descended from the mount where he had been talking with God. If ours do not shine with a holy light they may with a glowing freshness from the frequent use of cold water.

The Toad and the Ants.

The following scene was lately witnessed: A toad which had slept, or laid quietly under the garden fence through the greater part of a hot day, came out just as the sun was going down to seek for his supper. A colony of ants had just established themselves on the edge of a flower-bed, and were very busy enlarging their underground habitations. Among them were several winged ones. The toad discovered the ants, and prompted, doubtless, by "the keen demands of appetite," proceeded to devour them, selecting at first the winged ones, which, excepting a few that took flight or went into the ground, were soon gobbled up. But in his greediness, the toad exposed himself to the attacks of all the working ants, which fastened their sharp forceps on those parts of his body where the skin is thinnest, and soon made him retreat to his lair under the fence. But by vigorous jerks of the body, snaps of the jaws, and scratches with the forefeet, he soon cleared himself from his tormentors, the greater part of which were swallowed.

He now prepared for another charge on the ant's fort; but this time, instead of jumping at once into the midst of the defenders, he made a circuit and came np in their rear, sheltering himself nnder a luxnriant verbena. From this point he surveyed the ground, and renewed the attack by snapping up first the scouts and rear guard, slowly clearing his way and advancing towards the main body, taking all that came within reach, till at last the remnant of the "little people" were glad to hide themselves in their den, at the mouth of which the toad stood gnard. While this had been going on, several spectators had gathered. When the toad found there were no more ants to be got, his appetite being still unappeased, he tnrned to look for something else, and espying a fly on a gentleman's boot, snapped it quick as a flash. Other flies alighted on the clothing of the bystanders, several of which the toad caught by springing up to the hight of nearly a foot. He has since made his appearance in the same locality, nearly every evening, about snn-down, and his sagacions movements are watched by various persons with interest.—*Boston Cultivator.*

Sagacity of the Horse

A young officer connected with Sheridan's brigade, in one of those marches when they had driven back the enemy and had been in the saddle for several consecutive days and nights, took advantage of a temporary halt, to slip from his horse and stretch himself upon the 'turf'—his horse, meanwhile, browsing in the immediate vicinity. He had slep for some little time, when he was suddenly awakened by the frantic pawing of his horse at his side. Fatigued by his long ride, he did not rouse at once, but lay in that partially conscious state which so frequently attends great physical prostration. Soon, however, the faithful steed perceiving that it had failed to accomplish its object, licked his face, and placing its mouth close to his ear, uttered a loud snort. Now thoroughly awake, he sprang up, and as the horse turned for him to mount, he saw, for the first time that his comrads had disappeared, and that the enemy were bearing down upon him at a keen gallop. Once mounted, the faithful beast bore him with the speed of the wind safely from the danger, and soon placed him among his companions. "Thus," he added, with emotion, "the noble fellow saved me from captivity, and perhaps from death."

YOUNG FOLKS' COLUMN.

Youthful Heroes—No. 5.

A Girl Hero.

Acts of heroism are not alone performed by men. They are not limited to battle fields or to the deck of sinking vessels. Lottie Dougherty, of Millville, New Jersey, a young school-girl, studied telegraphing last snmmer, and in August accepted a situation at Radnor, a station on the Central Pennsylvania Railroad, boarding at Eagle Station, a mile or more distant. One evening, on her way to the station, a thunder storm came np. The lightning strnck the instrument and burned ont the magnet. She supplied another and was ready for business. Going to the door, she noticed by the light of a flash of lightning, that a large tree had been nprooted by the storm and blown across the track. An express train was due in a few minntes, and local trains would follow it. She comprehended the situation in a moment, and opposed by several men in the station, she seized a signal lamp, ran through the fearfnl storm up the track, and swung her lamp till she heard the engineer whistle down breaks. The speed of the train was checked, so that the cars were not thrown off the track, thongh the locomotive struck the tree with snch violence as to hurl a heavy branch against the girl's shonlder, throwing her down the embankment into a deep ditch. She was taken out and carried to the office where she telegraphed the news of the accident and remained on duty all night. A large snm of money was collected for her by the passengers, but she refused. Six months after the poor girl died from the injury she received in saving the train. Men and women, whose lives were saved, a great corporation, whose property was preserved, took little thought of the poor girl who had hazarded so much. Struggling for home and parents, she remained at her post of duty almost till the time that death came to her.

JIM FISK AS A BOY.—Fisk used often to tell about what he called his first mistake, in life." Said he: "When I was bnt a little boy on the Vermont farm, my father took me up to the stable one day, where a row of cows stood in the stable. Said he, 'James, the stable window is pretty high for a boy, but do you think you could take this shovel and clean out the stable?' 'I don't know,' said James, 'I never have done it.' 'Well, my boy, if you'll do it this morning, I'll give you a bright silver dollar,' said his father, patting him on the head, while he held the silver dollar before his eyes. 'Good,' says James, 'I'll try,' and away he went to work. He tugged and puffed, and finally it was done, and his father gave him a bright silver dollar, saying, "That's right, James, you did it splendidly; and now I find you can do it so nicely, I shall have you do it every morning, all winter!'" James didn't like the joke, and with the nsual perversion of his moral perceptions, thonght he did wrong in obeying so well the reqnest of his father. The young readers of the RURAL, we trust, will pnt a different and more correct construction upon the act by which the boy, who snbsequently became the great millionaire, earned his first dollar.

A BEAUTIFUL ANSWER. — When the Emperor of Germany was lately on a visit to a village in a distant portion of his dominions he was welcomed by the school children of the place. After their speaker had made a speech for them he thanked them. Then taking an orange from a plate, he asked: "To what kingdom does this belong?" "The vegetable kingdom, sire," replied the little girl. The Emperor took a gold coin from his pocket, and holding it up, asked: "And to what kingdom does this belong?" "To the mineral kingdom, sire," replied the little girl. "And to what kingdom do I belong, then?" asked the Emperor. The little girl colored deeply, for she did not like to say "the animal kingdom," as he thought she wonld, lest his Majesty should be offended, when a bright thonght came, and she said with radiant eyes, "To God's kingdom, sire." The Emperor was deeply moved. A tear stood in his eye. He placed his hand on the child's head and said, most devontly, "God grant that I may be accounted worthy of that kingdom."

WE should be most especially on our guard in the sunny days of prosperity, lest our hearts get a chill in the groves of worldly pleasure and wanton enjoyment.

Stock Notices.

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GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at bis farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety bead, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

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We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent.; and the report further says that if the "Farmers would note the differences in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and same at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

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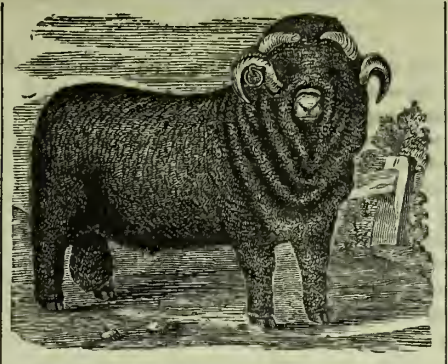
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Favorable terms given to purchasers.

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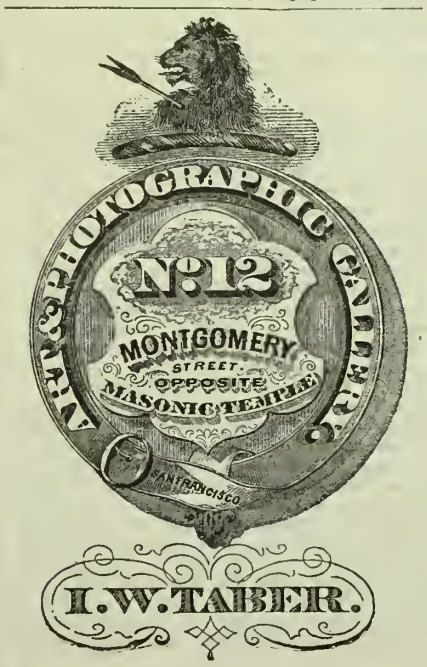
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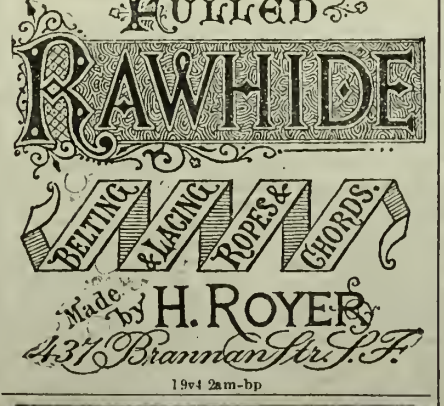
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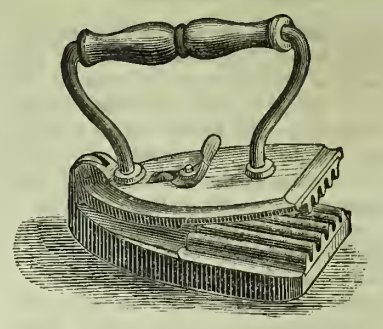
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In the vicinity of large cities in several of the Eastern States, the practice of sowing corn broad-cast, or planting it in drills, to be cut daily, and fed in a green or partially dried state to milch-cows, in August or later months, mainly to supplement the snpply of grass in the driest portion of the season and equalize the consumption of milk-making material, is almost universal among enterprising and intelligent dairymen.

In California, the prodigality of the flush spring-time, the season of succulence, is followed in midsummer by drouth, and, in many localities, by a stinted measure of tough, harsh stems of dried grass. Now, unless the early growth is left half-depastnred, the feed of the summer and autumn months will be found inconveniently short; thus extra feeding in the later months of summer is found to be a necessity that no dairyman can ignore with impunity to pail or purse.

Then, what shall we feed? We would certainly wish to feed that which yields the most milk and flesh at the lowest cost. But will our own local soil and climate admit of the culture and growth of the dssired plant? for we find as an existing fact that in every Atlantic State of the Union, that the leaves and tender stalks of the Indian corn (*Zeamais*) cut in different stages of its growth, are the almost universal resource of dairymen for tiding over the season of drouth and scarcity.

If the average practical seuse of the masses claims the paternity of a practice which becomes almost universal, the value of green corn-fodder can only be disproved by positive testimony.. The fact that maize is an indigenous product, peculiarly suited to our climate, thriving in every part of our country except in Alaska and on the mountain-tops, and the most valuable tilled crop that has ever been grown on the continent, is strong presnmptive proof that its fodder, if worth anything for soiling, may exceed in value, in view of the certainty of its growth in suitable soils and quantity of production, that of some, if not all, other fodder-plants.

Strong as is this presumptive claim, the superiority of corn-fodder cannot be thus assumed; for, if experiments, full and varied, shall establish the superior excellence of some exotic plant, as alfalfa or other product, our farmers must, even in view of the almost universal use of the former, adopt the new plant instead. The Eastern and Northern Statea cannot grow alfalfa, where they can grow corn, whilst in California we can grow alfalfa where we cannot grow corn. Hence alfalfa may be substituted for corn-fodder and clovera, in the new milk enterprise about to be inaugurated in our State.

Bees and Bee Keeping.

We have received a letter from a correspondent at Hot Springs, San Luia Ohispo county, we think; but aa it is written in pencil instead of ink, and upon both sides of the aheet, we have great difficulty in deciphering it. It seema to be on the subject of bees and in the form of numerous questions, which we will answer as nearly correct as we can.

We were not aware that Los Angeles honey brought any better price in the market than the aame good quality of honey from any other locality. In San Franciaco the price of honey depends entirely on its quality without reference to the locality where collected. It does not matter whether honey is gathered in the valleys or in the mountains ao that the feed is of the right kind; and the feed changes in either locality as the season advancea. The quality of honey from wild or tame bees will be exactly the same if gathered from the same flowera at the same time. Honey is best brought to market in the unbroken comb and in the usual frames common to the Harbison and other chambered hives. Next to this form, is that of 2 or 4 pound tin cans filled to within an inch or two of the top with clean honey and then a piece of comb filled with honey, put upon the top nearly filling the can.

We now come to another portion of the letter which we cannot make out. * * * A good authority on bees and their culture in this State ia Harbiaon'a; address J. S. Harbison, Sacramcuto. The best Bee Journal, is perhaps the *American Bee Journal*, it has that reputation with mauy. We have an article in another column on the proper manner of putting up honey.

Odors of Flowers.

Much of the importance attached to flowers by people generally, is owing to the odors they exhale. The rose has long been cultivated by amateurs, no less for its grateful fragrance, than for its beauties of form and color, and those which combine tLese qnalities, are the most favored objects of the florist's care. The cause of the odors of plants, is, no doubt, the disengagement of a volatile oil, which, in aome cases, is easily obtained, and made subservient to the use of man ; in others it entirely eludes every effort to confine or preserve it, being as evanescent as the light, which is the agent of its production.

No one can go into the country in those places where vegetation of many kinds is abundant, without having the olfactory nerves excited and refreshed by the odors of thousands of plants, leaves and flowers. These odors are considered most health bearing, and full of ozone. This is like continually inhaling the scents of a colossal natural bouquet. The fragrance is all around us. We enjoyed this especially lately, in a visit back of Saucelito about 9 miles near the ocean in Marin Co. Odors are distinguished into *permanent*, *fugitive*, and *intermittent*. *Permanent odors* are such as are enclosed in the tissue of the wood and bark of plants in a concentrated form; and are either from being slightly volatile, or coutained in close vessels which prevent exhalation, they remain for a long time, giving to the organs in which they are contained their peculiar odor. There is probably no part of a vegetable absolutely destitute of permanent odor. Every variety of wood, under certain circumstances, exhibits it. We found this nearly general in smelling the specimens of Dr. Stivers' collections of the woods of this coast as well as his foreign specimens. Some of these woods, nearly scentless otherwise, become strongly odorous, when rubbed or heated. The Pine, Oak, Redwood, Beech and Cedar, are striking examples of this kind. Others are odorous for a long time after being cut; under ordinary circumstances, of this kind are the Rosewood of Teneriffe, the Cedar aud Sandal-wood (*Santalum album*) of India, so highly esteemed in Eastern Asia for its fragrance. The slight volatility of the oil, to which these species owe their odors, and the compactness of the wood enable them constantly to yield their fragrance for an indefinite length of time.

Most visitors to this Coast notice how remarkable and pleasant are the odors of the wood with which the cases of libraries, etc., are made.

Some woods are fragrant when first cut, but lose this property in a very ahort time, as is the case with Cinnamon and Cassia, the fragrant aubstances being volatile, and the wood porous, both causea concurring to render the wood in a ahort time scentless.

Fugitive odors are such as belong to organs of ahort duration, as the leaves and flowera. We have been in the South during the aeason of the bloom of the Magnoliaa, when the woods and swamps were perfumed by the odor of their flowera. Thia odor ia but little during the direct action of the mid-day aun, but at suuset the air when there is dew ia loaded with their fragrance. A shower prodnces similar effects.

Intermittent odora are such as are giveu off at particular times, and the plants which yield them are entirely destitute of snch odors at other timea. Many *Orchidacæ* are perfectly acentless during the day, hut during the night are fragrant. A remarkable example of thia class of odors is exhibited by the *Cacalia septentriolis*, which, it is said, emits a strong aromatic odor only when the sun ahiuea. The night blooming Cereus gives out flashes or puffs of perfume, as ita intermittent odors are called. Many other cases we might cite of similar singular phenomena, properly coming under this head.

Odors have been classed, from their similarity of effect on the human system, into aromatic, stimulating, peuetrating aud sweet, but the difficulty of fixing definite limits to the application of these terms renders the classification of little use.

It is observed that white flowers are most odoriferous and agrecable, the yellow and brown moat disagreeable.

Map of San Francisco.—We have received a copy of Bancroft's Guide map of the City and County of Sau Francisco.

This map ia entirely new, being taken from the latest official surveys, and contains all the recent improvements in the city and suburbs. It contains also a complete refereuce list of prominent places, including cemeteries, churches, hospitals, hotels, parks, and squarea, public buildings, railroad depots, achoola and collegea, theaters, hall, etc., wharfs and ferriea, aud has a akeleton map, showing the relative position of the aurrounding country.

The map is very distinctly printed, aad has those blocks that are built upon, shaded, which makes it easy of reference. It ia for sale by A. L. Bancroft & Co.

Bouvardia.

One of the most striking and beautiful shrubs which is seen with its elegant red brilliant drooping flowers and handsome ribbed glossy leaves in many of our city and suburban gardens, throughout our whole winter, is the Bouvardia. Its constancy of winter blooming whenever California flowery shrubs are scarce, constitutes its great value, and our exceeding pleasure in viewing it. They are among the few flowers which are indispensable both to the amateur and the florist. There are not more than about half a dozen species in cultivation, but many varieties have been obtained by skillful cultivation, some of which even excel the species in beauty. In brilliancy of color they have no superiors ; and in one species, the delicate white flowers are pleasantly fragrant. The general color of the flowers is scarlet. In B. *flava* as the name implies, the blossoms are yellow. The flowering season is generally in winter; but by a little attention, there may be had a succession of plants coming iuto bloom at all seasons. The proper soil is a rich leaf-mould and silver sand, or light rich, fibry loam. B. *triphylla* is the best for, summer bloom, and, as a bedding plant is better than any other spccies. The flowers are orange-scarlet, very showy and attractive.

Bouvardias are propagated by cuttings of branches or roots, and by seeds; the two former for the perpetuation of old species, the latter for the production of new varieties.

Cuttiugs should geuerally be made in spriug, and should bc from half ripened shoots taken off at a joint. They should be inserted one-half their length in silver sand or in sandy loam, and have a slight bottom heat. They root readily and may soon be potted off. Seed may be sown at any season in sandy loam.

The Canadian Farmer.—If we were farming anywhere on the Atlantic side of our country, we should place the *Canadian Farmer* upon our list of agricultural papers, as one quite indispensable to onr success; inasmuch as it contains a vast fund of valuable agricultural information in each successive number.

Asa W. Rawson will please communicate with this office.

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The Fruits and Fruit Treea of America, or the Culture, Propagation, and Management, in the Garden and Orchard, of Fruit Trees generally, with descriptions of all the finest varieties of Frnit, Native and Foreign, cultivated in this conntry. By A. J Downino. Illustrated; 1098 pages; 1869. The best anthority, and only complete work. Price, in cloth and gilt, $5, post paid, by Dewey & Co., this office

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Ten Acres Enough: A practical experience, showing how a very small farm may he made to keep a very large family, with extensive and profitable experience in the cnltivation of the smaller fruits. Tenth edition, 1871. Price, post free, $1.50, at this office.

Observations on the Culture of Silk in California. By I. N Hoag, of Sacramento. 1870. Pamphlet, 33 peges. For eele by DEWEY & CO., Publishers of the Pacific Rural Press, San Francisco Post paid, 25 cts.

Cotton Culture; by J. B. Symon; with an additional chapter on Cotton Seed and its nses. 190 pages, 1868. Price, post free, $1.75, at this office.

How Crops Grow: by Johnson; A treatise on the chemical composition, structure and life of the plant, for all etudents of agricnltnre; with illustration and analysis. 394 pages; 1868. Post free from this office, $2.50.

American Grape Growers' Guide; by Wm. Chorlton (N. Y.) 204 pages, 1892. Post free, $1, from this office.

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Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money, but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

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S. F. Market Report.

At wholesale when not otherwise indcated.

Wheat and Flour Review for April.

The close of the Wheat season is rapidly approaching, and the facts and figures given for it by this journal at its beginning, have been verified by the results of the year, although disputed many a time since, and by newspapers of confessed authority on commercial matters. We predicted that the yield would prove to be about 14,500,000 centals, and the export about 10,000,000 centals, and that has proved to be entirely correct. To date we have exported close on 10,000,000 centals, and as 1,500,000 centals were for consumption, 1,500,000 for distilling purposes, and 1,500,000 for seed, the total with what remains for export would be just 14,500,000 centals. We also predicted that there would be low prices for wheat, and that also has been justified by the event.

The receipts in this city for the month ending April 28th, 1873, have been 433,948 centals, a small quantity compared with previous months, but accounted for by the fact that the export surplus has been nearly exhausted. The receipts at Oakland Wharf for the same period have been 109,600 centals, also a much reduced quantity as compared with previous months. The total receipts of California wheat for the nine months and twenty-eight days, ending on the 28th of this month have been 10,120,148 centals. The receipts of interior Flour at this city for the past month have been 92,768 quarter sacks. These receipts not only this month, but throughout the year have been largely supplemented by imports from Oregon. The total receipts of Wheat and Flour reduced to Wheat since the beginning of the present harvest year have been 10,658,009 centals.

Out of this we have exported of Wheat, 317 cargoes besides many smaller shipments, the whole amounting to 9,119,284 centals, while of Flour we have exported to date the equivalent of 705,510 centals of Wheat, making a total export of Wheat and Flour reduced to Wheat to date of 9,824,794 centals; this leaves only 175,206 centals of the estimated export surplus as stated by us at the beginning of the year. Part of the export however has consisted of Oregon Wheat and Flour. This of course leaves a somewhat larger export balance; the exports for the past month have been carried by the following vessels:

The "Times," to Cork with 23,844 centals; the "Max" to Falmouth, with 18,836 do; the "Laura and Gertrude" to Queenstown, with 32,330 do; the "River Indus" to Liverpool, with 32,984 do; the "Kenilworth" to Liverpool, with 24,754 do; the "Star of Hope" to Queenstown, with 39,622 do; the "Great Admiral" to Queenstown, with 44,557 do; the "Casina" to Liverpool, with, 20,448 do; the "Sierra Nevada" to Liverpool, with 23,363 do; the "Ka Moi" to Queenstown, with 15,485 do; the "Costa Rica" to Panama, with 53 do; the "Dunfillan" to Queenstown, with 28,100 do; the "Centaur" to Cork, with 38,131 do; the "Cormorant" to Liverpool, with 33,411, do; the "Prince Alfred" to Victoria, with 51 do; the "James Foster" to Liverpool, 42,147 do; the "Friedlander" to Liverpool with 48,322 do; the "Great Republic" to Central America with 13 do; the "William Fruing" to Liverpool with 23,300 do; and the "Java" to Liverpool with 40,629 do; making a total of 18 cargoes and 2 shipments of 529,480 centals, worth $993,105. The 317 shipments since the beginning of the harvest year, of Wheat and Flour, have been worth $17,688,600 or within a fraction of the total value of our exports of both domestic produce and foreign goods re-exported—the highest for several years back.

On the 26th of April, the price of Coast Wheat varied from $1.60 to $1.80 per cental, the latter for Good Shipping, and these figures yet prevail. Bay Shipping varied from $1.80 to $1.85, and so continued for three weeks, but about a week since, it took an upward turn and is now quotable at $1.85 to $1.90. Milling Wheat was worth $1.85 at the beginning of the month, and is now worth $1.90. The improved tone has been caused by a firmer feeling in the Liverpool market, and by a reduction in the price of tonnage, which is now nominally worth $18.22 per ton or 91 cents per cental.

Wheat in the Liverpool market according to telegrams received by the Associated Press and the Merchants' Exchange, now commands $2.83 to $2.91 as compared with $2.79 to $2.83 a month since. This shows an increase of 6 cents. But as during the month the price had fallen to $2.75 to $2.79, there has been a recent and continuous advance of 10 cents.

Flour has remained stationary in price during the month. The amount of exports has been very large aggregating 2,365 barrels, 3,876 half sacks, and 35,732 quarter sacks. For prices see our PRICES CURRENT.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, May 14, 1873.

The present is the first week since the beginning of the harvest year that we have had to chronicle no exports of Wheat. There are, however, six ships loading, or already full, and these will take one-half of all that is now available for export. There will be plenty of tonnage for the next harvest, as, anticipating a crop of at least double what the coming one will be, ship owners had made arrangements to reap another rich freight harvest. The little moisture that has fallen to-day, at least if we are to gauge its effects by the quantity that has fallen in San Francisco, will have little appreciable effect on the crop.

One industry of this State has been unfavorably affected by the abolition of the tariff, and that is the oue of Mustard culture. Since the duty was taken off, European growers are able to supply more cheaply the markets of the East than are those of California, therefore we can send little Mustard East for the future. Very little has come into this city since the beginning of the year, one of our largest manufacturers having purchased nothing since January.

Receipts.

Receipts of all articles of Bay Produce save those of Potatoes and Wine are rather small this week.

We summarize receipts of Bay Produce to 12 M. to-day as 8,855 quarter sacks of Flour; 63,844 centals of Wheat; 5,651 do of Barley; 120 do of Oats; 203 do of Rye; 5,423 do of Potatoes, about double the nsual quantity; 230 do of Onions, 1,826 do of Bran; 488 do of Middlings; 1,764 Hides; 3.835 bales of Wool; 650 tons of Hay; 35 do of Straw; 453 centals of Beans; and 26,200 gallons of Wine.

Receipts of Wheat at Oakland aggregated 48,972 centals.

Receipts of Coast Produce for the week have been rather light save in the matter of Wheat. They include 4,673 centals of Wheat; 4,515 do of Barley; 380 do of Oats; 400 do of Corn; 7,035 do of Potatoes; 48 do of Onions; 150 do of Flax Seed; 15 do of Beans; 802 do of Wool; and 1 barrel, 23 pipes, and 1 keg of Wine.

From Portland by the "J. L. Stephens," have received 3,047 centals of Oats; 4,182 quarter and 1,061 half sacks of Flour; 328 Hides; and 4,820 sacks of Wheat.

Barley.

Barley is steady but sales are not large. Neither are receipts as large as they have been. The last year's crop, or rather what remains of it, is held in the interior by parties who send it to markct just as it is wanted—thus the price is kept up. Receipts this week aggregate about 10,000 centals. We note sales of 5,700 bags of bright Coast and Feed at $1.20; 2,400 of do at $1.22½; 1,200 sacks of do at $1.25; 500 do of Bay at $1.35; 1,500 do of Bay Brew at $1.42½; and 2,300 do of CoastFeed at private rates.

Flour.

Flour 's firm at last week's advance, but there is little demand for export. California Flour is exciting a sensation in Philadelphia, where 100 barrels packed in bags of 100 lbs each, was sent from the Pioneer Mills, Sacramento. Its quality has made quite a favorable impression in the City of Brotherly Love. Exports last week have been entirely confined to the cargo of the "Constitntion," for Panama, Central America and Mexico consisting of 37 barrels, 397 half sacks, and 1,650 quarter sacks.

Hay.

Receipts chiefly of Wild Oat; have not been very large these last two weeks, owing to the prevalence of the Epizooty. We note sales of 20 tons of Tame Oat at $16; 30 do at private rates; 60 do of inferior new at $10, and 10 do at $12. The range of the market is from $12 to $20 per ton.

Hops.

There is no movement in the local market. The following is from Emmet, Wells & Co's. circular. We note another important shipment (600 bales) of old Hops to London; this reduces the stock of old in this city to about 12,000 bales, fully one-third of which can be put down as almost worthless for brewing purposes, being the accumulated rejections and leavings of the past 5 year's business. The stock of California Hops in this market is now reduced to 150 bales. Those sold have not realized quite so good prices as the consignors'anticipated early in the season. This can only be accounted for by the fact that good English Hops have come into direct competition with California production, while in former seasons this competition has not existed. Fine English Hops selling at 32@35c per pound has been a hard thing to compete against. Liberal offerings at these figures has prevented the early anticipated advance in domestic produce.

The latest New York circular reports to date of May 3d: "The market is quiet but steady; the feeling of holders is very firm being strengthened by the export of some lots, partly of old American, but partly of foreign reshipped. Brewers are, apparently, determiued to hold off as long as possible, but holders feel sure that the present supply is inadequate to the future requirements, and unless forced by money stringency or other cause, show no disposition to concede."

Oats.

Omaha and Oregon again supply us with the principal part of the Oats sold in our market. Last week we received 600 centals from Omaha, and 3,047 do from Portland. The market is weak. We note sales of 150 bags of Omaha at $2 12½; 150 do of California at $2.17½; 420 do California at $2.20; 150 do Oregon at $2.25; 500 do Oregon at $2.25 to $2.30; and 150 do California at private rates.

Potatoes.

Prices have advanced 15 cents the last week. Receipts have aggregated 12,458 centals. We note sales of 200 sacks of Bodega at 80c; 450 do of Tomales, at 85c to 90c, and 1,300 do of Humboldt at $1 to $1.25.

Wheat.

Receipts from all sources this week have aggregated 122,309 centals. The market remains firm at last week's quotations, notwithstanding that there has been an advance in Liverpool. The highest offered is $1.97½, but $2 is asked by holders. The price in Liverpool, according to telegrams received by the Associated Press and the Merchants' Exchauge, is $2.99 to $3.01—an advance of 15c over the price at this date last week. Freights remain unchanged. There has been no export this week. We not sales of 6,000 sacks of Coast at $1.85; 500 do at $1.90; 1,400 do at $1.92½; 11,360 Choice Shipping, etc., at $1.95; 100 do at $1.97½, and 1,000 do Choice at private rates.

Wool.

Receipts have fallen off a little when compared with those of last week. The market is brisk for good Spring Wool. There is no improvement in New York. Latest advices by mail report the sale at Boston for the week ending May 3d, of 50,000 pounds of California Fall at 19c to 25c, and 37,000 pounds of Spring at 25c to 27½c, all rate in currency. Local sales have aggregated 441,000 pounds of Spring Wools. The circular of Messrs. Denny, Reid & Co., of Boston, reports to date of May 3d, that prices have touched bottom is now very generally believed, but the market has been so fluctuating for some months past, confidence is not as yet fully restored. Manufacturers are still heavily loaded with Woolens, for which there is as yet no apparent outlet, and any advance in prices will force many of them, who have been free purchasers for some weeks past, to withdraw from the market for the present.

GENERAL MERCHANDISE.

There has been no improvement to report during the week. We note sales of 1,000 18-lb boxes of Mission Soap; 500 36-lb boxes of do; 1,000 boxes Mission Solar Sperm Candles, and 50 gross of Mission Washing Powders. Business in Bags is very dull, prices having now gone down to 16½c. The metal market is dull. Fish is unchanged. There is a large supply of Mackerel on the market that is not of the brand that it purports to be and which is sold more cheaply than the genuine. Rice has gone up from ½ to 1c in consequence of the restriction on exports from China and of the large exports made from this city. Hawaiian Rice, however, remains unchanged in price. The market for Coffee is stiff. The new season crop is not large. There have, within the last two or three weeks, been sales of from 4,000 to 5,000 bags for export to the East. There is no excitement in the Tea market. A regular jobbing trade is being done. Pepper, Cloves and Nutmegs are very scarce and high. The Oil market is declining, all kind of Coal Oils being reduced in price last week. Our quotations of Hides are higher than those of some of the other papers, but a prominent Front street dealer is ready to buy all Hides in town at these figures. Four ships have carried away our exports last week which amounted in value to $145 751.

DOMESTIC PRODUCE.

WEDNESDAY M., May 14, 1873.

BEANS.			
Beans, sm'l wh. lb	5½	@	6
do, butter	5¼	@	6
do, large, do	5½	@	6½
do, bayo	3¼	@	3½
do, pink	3½	@	4
do, pea	6½	@	7
BROOM CORN.			
Per ton	$40	@	120
DAIRY PRODUCE.			
Butter, Cal. frsh. lb	—	@	—
do, ordin'y roll	25	@	—
do, choice	30	@	—
do, new firkin	30	@	—
do, pickled	28	@	30
do, New York	—	@	—
Cheese, Cal. new	13	@	15
do, Eastern	18	@	—
Eggs, Cal. fresh	28	@	30
do, Orsgon	22½	@	—
do, Eastern	—	@	—
FEED.			
Bran per ton	—	@	25—
Middlings	30 00	@	—
Hay	15 00	@	22—
Straw	12 00	@	20—
Oil cake meal	30 00	@	—
Corn Meal	30 00	@	50—
FLOUR.			
Alviso Mills, hbl.	4 25	@	6 00
California	4 25	@	6 00
City Mills	4 50	@	6 00
Comme'l Mills	4 50	@	6 00
Golden Gate	4 50	@	6 00
Golden Age	4 50	@	6 00
National Mills	4 50	@	6 00
SantaClaraMills	4 50	@	6 00
Geneseo Mills	4 50	@	6 00
Oregon	4 50	@	6 00
Vallejo Star	4 50	@	6 00
Venus, Oakland	4 50	@	6 00
Stockton City	4 50	@	6 00
Lombard, Sac	4 50	@	6 00
FRESH MEAT.			
Beef, fr quality	7	@	—
do, second do	6	@	—
do, third do	3½	@	5
Veal	6	@	7
Mutton	6	@	6½
Pork, undressed	7	@	7¼
do, dressed	9½	@	10
GRAIN, ETC.			
Wh't Cal. c'st. cl.	1 60	@	1 85
do, shipping	1 90	@	1 95
do, milling	1 90	@	1 97½
do, Oregon	—	@	1 95
Barley, DarkO'st	—	@	1 20
do, Light	1 22½	@	1 25
do, Brewing	1 40	@	1 50
Oats, Coast	2 10	@	2 15
do, Light	2 15	@	2 27½
Corn, White	1 25	@	1 30
do, Yellow	1 25	@	1 30
Buckwheat	1 25	@	1 37½
Rye	2 25	@	2 37½
HOPS.			
California, 1871, lb	—	@	—
do 1872	50	@	—
Eastern, 1872, lb	62½	@	—
MISCELLANEOUS.			
Beeswax, per lb	32	@	35
Honey, choice	10	@	22½
Los Ang. Honey	12½	@	30
Onions	3	@	8
Flaxseed	3	@	—
Canary do	4	@	5
Mustard do, w'ite	1½	@	2½
do, brown	2	@	3
Alfalfa	35	@	—
Ky. Blue Grass	50	@	—
Timothy	35	@	—
Italian Rye	18	@	—
Perennial do	35	@	—
NUTS.			
Peanuts per lb	3	@	5
Pecan nuts	16	@	18
Hickory do	10	@	—
Brazil do	16	@	—
Coc'snuts, per 100	0 90	@	—
Alm'ds h'rd she	10	@	12½
do, soft	20	@	25
POTATOES.			
Sweet, per lb	—	@	—
Humboldt	1 15	@	1 30
Monterey	—	@	—
Tomales	87½	@	1 00
POULTRY & GAME.			
Live Turkeys lb.	18	@	20
Hens, per dz	8 00	@	9 00
Roosters	8 00	@	9 00
Broilers	3 00	@	6 00
Ducks, tame, doz	10	@	11—
Geese, per pair	2 00	@	3 00
Hare, per doz	2 50	@	3 00
Snipe, Eng., doz	2 50	@	3 00
Venison, per lb	—	@	—
PROVISIONS.			
Cal. Bacon, per lb	12	@	13
Eastern do	12	@	—
do sugared	—	@	—
Cal. Hams	—	@	14
Eastern do	12	@	—
Cal. Smoked Beef	11	@	12
WOOL, ETC.			
Spring, short, lb	16	@	18
do choice Nort	22	@	22½
Burry	13	@	16
Hides, dry	17	@	—
do wet salted	8½	@	9
Tallow	6½	@	7

FRUIT MARKET.

There are none, save Oregon apples, in the market, and not many of them. Pears are also scarce. Oranges, lemons and limes are plenty. A cargo of 300,000 oranges from Tahiti arrived the other day, and one is expected in a fortnight with 400,000. Dried fruits, figs particularly, are becoming dearer.

FRUIT MARKET.			
Tahati, Or. per 1000	37 50	@	—
Cal. do	50 00	@	60 00
Limes, per M	—	@	4 00
Bananas, per bnch	3 —	@	4 00
Pineapples, per dz	9 00	@	12 —
Apples, cat'g, bx	3 50	@	4 —
Pears, Eating	1 50	@	2 50
Pomegrans'ts, per 100	—	@	—
Grapes, Mission	—	@	—
Rose of Peru	—	@	—
Blk Hamburg	—	@	—
Black Prince	—	@	—
Muscat of Al'r	—	@	—
Flame Tokay	—	@	—
Black Morocco	—	@	—
Wine Grapes	—	@	—
DRIED FRUIT.			
Apples, per lb	8	@	9
Pears, per lb	6	@	9
Peaches, per lb	10	@	12½
Apricots, per lb	—	@	—
Plums, per lb	5	@	10
Pitted, do per lb	15	@	20
Raisins, per lb	8	@	12
Black Figs, per lb	20	@	15
White, do	15	@	2)
VEGETABLES.			
Cabbage, per dz	75	@	—
Garlic, per lb	6	@	8
Green Peas	3	@	5
Green Corn, per doz	—	@	—
Marrow'at Squash per ton	7 50	@	8 00
Artichokes, per lb	2	@	3
String Beans, per lb	7	@	8
Lima Beans	6	@	7
Peppers dry	25	@	—
Okra	30	@	

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, per M	$20 00	Rough, per M.	$25 00
Rough refnse, per M	16 00	Flooring and Step, per M	37 50
Rough clear, per M	32 50	Flooring, narrow, per M.	40 00
Rough clear refuse, M	22 50	Flooring, 2d quality. M	30 00
Rustic, per M	35 00	Laths per M	4 00
Rustic, refuse, per M	24 00	Furring, per lineal ft	1c
Surfaced, per M	32 50	Rough, per M	$25 00
Surfaced refnse, per M	22 50	Rongh refuse, per M	20 00
Flooring, per M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, per M	20 00	Rough Pickets, per M	18 00
Beaded flooring, per M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refnse, M	22 50	Fancy Pickets, per M	30 00
Half-inch Siding, M	22 50	Siding, per M	27 50
Half-inch siding, ref. M	16 00	Tongued and Grooved, surfaced, per M	40 00
Half-inch, Surfaced, M	25 00	Do do refnse, per M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half-inch Battens, M	22 50	Rustic, per M	42 50
Pickets, rough, per M	14 00	Battens, per lineal foot	1
Pickets, rough, p'ntd	16 00	Sbingles per M	3 50
Pickets, fancy, p'ntd	22 50		
Shingles, per M	3 00		

Leather Market Report.

[Reported for the PRESS by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, May 14, 1873.

The market for Sole Leather continues the same. French Calf steady at old prices, with light demand.

City Tanned Leather, per lb			26@29
Santa Cruz Leather, per lb			26@29
Country Leather, per lb			25@28
Stockton Leather, per lb			26@29
Jodot, 8 Kil., per doz	$50	@	54 00
Jodot, 11 to 19 Kil., per doz	66 00	@	85 00
Jodot, second choice, 11 to 16 Kil. per doz	55 00	@	70 00
Levin, 12 and 13 Kil., per doz	68 00	@	70 00
Cornellian, 12 to 16 Ko	57 00	@	67 00
Cornellian Females, 12 to 13	60 00	@	64 00
Cornellian Females, 14 to 16 Kil	66 00	@	72 00
Ogeran Calf, per doz	54 00	@	
Simon, 18 Kil., per doz	60 00	@	62 00
Simon, 20 Kil. per doz	65 00	@	67 00
Simon, 24 Kil. per doz	72 00	@	74 00
Rohert Calf, 7 and 9 Kil	35 00	@	40 00
French Kips, per lb	1 00	@	1 30
California Kip, per doz	50 00	to	60 00
French Sheep, all colors, per doz	8 00	@	15 00
Eastern Calf for Backs, per lb	1 10	@	1 25
Sheep Roans for Topping, all colors, per doz	9 00	@	13 00
Sheep Roans for Linings, per doz	5 50	@	10 50
California Russett Sheep Linings	1 75	@	5 50
Best Jodot Calf Boot Legs, per pair	5 25		
Good Frsnch Calf Boot Legs, per pair	4 50	@	5 00
French Calf Boot Legs, per pair	4 00		
Harness Leather, per lb	30	@	37½
Fair Bridle Leather, per doz	48 00	@	72 00
Skirting Leather, per lb	34	@	37½
Welt Leather, per doz	30 00	@	50 00
Buff Leather, per foot	21	@	25
Wax Side Leather, per foot	17	@	19
Eastern Wax Leather	26		

GENERAL MERCHANDISE.

BAGS.			
Eng. stand. Wh't	14½	@	—
Flour Sacks ½s	13½	@	16
" " ¼s	8½	@	9½
Stand. Gunnies	17	@	17½
" Wool Sacks	60	@	62
" Barley do	16½	@	—
Hessian 45-in. gds	12	@	—
do 60	17	@	—
Burlaps, yard	12	@	—
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	3 00	@	—
do Table do	3 75	@	4 —
Jams & Jellies	4 —	@	—
Pickles ½ gl	3 25	@	3 50
COAL—Jobbing.			
Australian, per ton	14 —	@	15—
Coose & Bel. Bay	8 50	@	—
Seattle	11 00	@	—
Cumberl'd, cks	25 00	@	—
do bnk	22 50	@	23—
Lehigh	20 00	@	—
Liverpool	11 00	@	12—
West Hartley	14 00	@	16—
Scotch	12 00	@	14—
Scranton	17 00	@	—
Vancouver's Isl.	12 00	@	14—
Charcoal, per sk	1 00	@	—
COFFEE.			
Costa Rica per lb	18½	@	19
Guatemala	18½	@	19
Java	—	@	23
Manilla	18	@	—
Ground in cs	27½	@	—
Chicory	8	@	—
FISH.			
Pac. Dry Cod, new	8	@	9 —
casss	8	@	9
Eastern Cod	9 50	@	—
Salmon in bbls	8 00	@	—
do ½ bbls	—	@	—
do 2½ lb cans	—	@	3 75
do 2lb cans	—	@	3 50
do 1lb cans	—	@	2 —
Pick. Cod, bbls	—	@	—
do ½ bbls	—	@	—
Cal. Smoked	—	@	—
Herr'g, bbls	3 50	@	—
Mack'l, No. 1, bbls	00	@	9 50
" Extra	—	@	14 00
" in kits	2 50	@	3 00
" mess	—	@	4 00
" ex. mess	—	@	5 00
NAILS.			
Assorted size, lb	5¾	@	9 —
OILS.			
Pacific Glne Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No. 1	1 35	@	1 40
do do No. 2	1 25	@	1 30
Cocoa Nut	60	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	40	@	45
Polar, refined	55	@	—
Lard	85	@	—
Coal, refined Pet	37½	@	40
Oleophine	37½	@	40
Devoe's Bril't	43	@	45
Long Island	37½	@	40
Eureka	37½	@	40
Downer Kerose'e	50	@	52½
Gas Light Oil	37½	@	40
PAINTS.			
Atlan. W. Lead.	11½	@	12
Whitening	—	@	2
Chalk	—	@	1
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11
RICE.			
China No. 1, lb	7¼	@	—
do 2, do.	7¼	@	7½
Japan	7	@	8
Patna	7	@	7¼
Hawaiian	8	@	9
SALT.			
Cal. Bay, per ton	5 00	@	15—
Carmen Island	14 00	@	30—
Liverpool fine	25 00	@	26—
do coarse	19 00	@	20—
SOAP.			
Castile lb	9½	@	11
Looal brands	5½	@	7
SPICES.			
Allspice, per lb	15½	@	16
Cloves	27½	@	—
Cassia	30	@	—
Nutmeg	1 00	@	—
Whole Pepper	23	@	24
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	25	@	30
do Mace	1 50	@	1 75
do Coffee	25	@	—
SUGAR, ETC.			
Cal. Cube per lb	12¼	@	—
Circle A crushed	12¼	@	—
do granulated	11¾	@	12
Golden C	10	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls.	52½	@	—
do in ½ bls.	55	@	—
do in kegs	60	@	—
TEA.			
Oolong, Canton, lb	17	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquersd bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Conn. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut chew'g, gr.	85	@	90
Fine cut chewing, huc'ts, lb	75	@	90
Banner fine cut	9 25	@	—
Enreka Cala	8 50	@	—

San Francisco Retail Market Rates.

WEDNESDAY NOON, May 14, 1873

FRUITS, VEGETABLES, ETC.

Apples and pears are about out of the market. Goos berries are coming in slowly, and are not of a superio quality. There is abundance of cherries, which vary extensively in price from 12½c to $1. Cherries and strawberries fill the markets. Celery is running int seed and will soon be scarce. String beans are plentiful, and the price has declined to one-third what it was.

Apples, per lb	10	@	12½	Cucumbers, ea	12½	@	25
Pears, per lb	—	@	8	Tomatoes, per lb	—	@	—
Apricots, lb	50	@	62½	Green Peas	6	@	8
Pine Apples, each	50	@	1 00	String Beans	12½	@	25
Bananas, per doz	75	@	1 00	Cress, per doz bun	20	@	—
Canteleups	—	@	—	Dried Herbs, lb	25	@	35
Watermelons	—	@	—	Garlic	—	@	10
Cal. Walnnts, lb	—	@	20	Green Corn, doz.	—	@	—
Cranberries, per g	—	@	1 00	Lettuce, per doz	25	@	35
Strawberries, lb	10	@	15	Mushrooms, per lb	50	@	—
Raspberries, lb	—	@	—	Horseradish, per lb	20	@	25
Gooseberries	10	@	12½	Okra, dried, per lb	50	@	—
Cherries, per lb	12½	@	1 25	do fresh, per lb	—	@	—
Orangss, per doz	50	@	1 00	Pumpkins, per lb	2	@	3
Limes, per doz	25	@	—	Parsnips, doz	20	@	—
Figs, dried Cal.	12½	@	25	Parsley	15	@	—
Figs, Smyrna, lb	25	@	35	Pickles, per gal	50	@	75
Asparagus, lb	6	@	8	Radishes, doz	—	@	20
Artichokes, doz.	25	@	50	Summer Squash	10	@	12½
Beets, per doz	20	@	—	Marrowfat, do	2	@	3
Potatoes, New per lb	3	@	5	Hubbard, do	2	@	3
Potatoes, sweet,	3	@	5	Dry Lima, shl	8	@	10
Broccoli, per pc.	10	@	15	Spinage, per bskt.	25	@	50
Cauliflower, each	10	@	15	Salsify, per bunch	—	@	—
Cabbage, per doz	75	@	1 00	Turnips, per doz	20	@	—
Carrots, per doz	20	@	—	Rhubarb	6	@	8
Celery, per doz	75	@	—				

POULTRY, GAME, FISH, MEATS, ETC.

Turkeys are very scarce this week, so also are most kinds of poultry. Demand is also slack. Fish are not uery plentiful this week, but the demand is slack. Salmon trout are reduced in price very much, being now only from 50c to $1 per pound. Young salmon are plentiful, and are selling from 50 to 62½c per pound. They are caught near Vallejo. Rock Cod and Terrapin are both reduced in price since last week.

Chickens, apiece	87½	@	1 00	Choice D'ffield	20	@	—
Turkeys, per lb	30	@	—	Whittaker's	8	@	20
Mal. & Canv Bk, pr	—	@	—	Flounder, per lb	15	@	—
Tame, do	2 50	@	—	Salmon, per lb	8	@	10
Teal, per doz	—	@	—	Smoked, new,	12½	@	15
Geese, wild, pair	—	@	5	Pickled, per lb	5	@	6
Tame, per pair	4 50	@	—	Salmon bellies	15	@	—
Snipe, per doz	2 50	@	—	Rock Cod, per lb	10	@	12½
Pigeons, dom. do	—	@	4 —	Cod Fish, dry, lb	12½	@	—
Wild, do	—	@	—	Perch, s water, lb	10	@	—
Hares, each	37½	@	—	Fresh water, lb	12½	@	—
Rabbits, tame	25	@	50	Lake Big. Trout	25	@	—
Wild, do, per dz	2 50	@	—	Smelts, large per lb	6	@	8
Beef, tend, per lb	20	@	—	Herring, Sm'kd.	75	@	—
Corned, per lb	10	@	12½	Tomcod, per lb	—	@	12½
Smoked, per lb	12½	@	—	Terrapin, per doz	2 50	@	—
Pork, rib, etc., lb	—	@	15	Mackerel, p'k, ea	12½	@	—
Chops, do, per lb	15	@		Fresh, do lb	—	@	—
Veal, per lb	15	@	20	Sea Bass, per lb	—	@	5
Cutlet, do	15	@	20	Halibut, per lb	—	@	—
Mutton chops,	10	@	15	Sturgeon, per lb	4	@	5
Leg, per lb	12½	@	15	Oysters, per 100	1 00	@	—
Lamb, per lb	20	@	25	Chesp, per doz	75	@	—
Tongues, beef, lb	1 00	@	—	Turbot	50	@	—
Tongues, pig, lb	10	@	—	Crabs per doz

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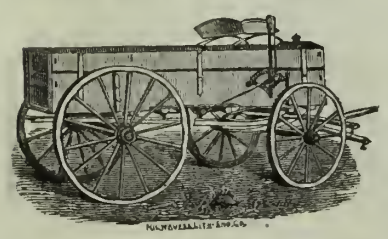


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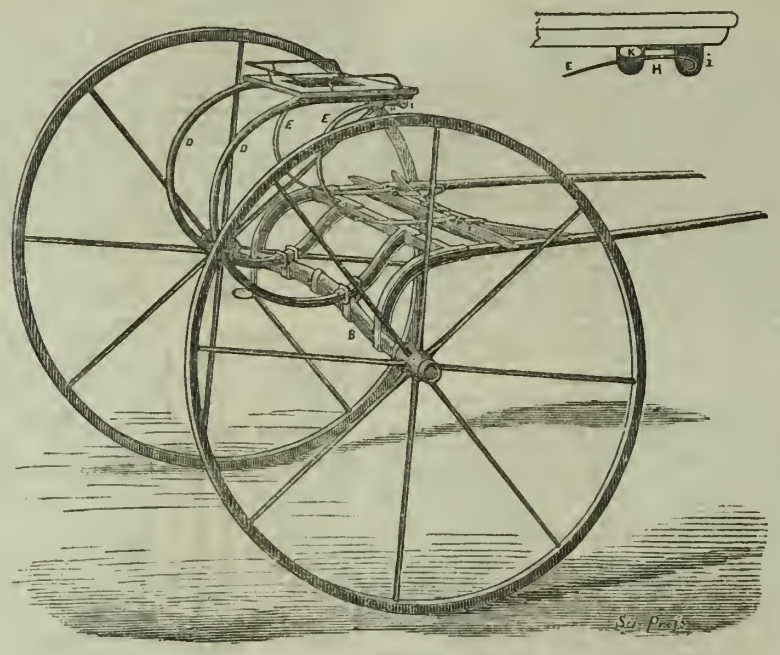
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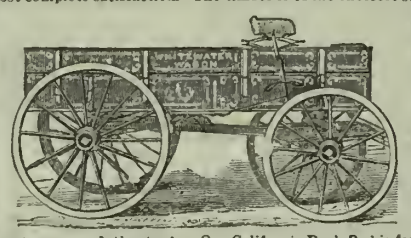
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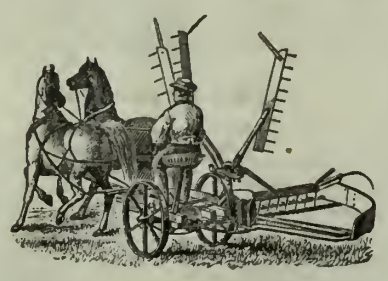
PRICES.—**Thimble Skein,** 3 inch, **$100;** 3¼ inch, **$105;** 3⅓ inch, **$110;** 3¼ inch, **$115;** 4 inch, **$125**—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $1 30 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



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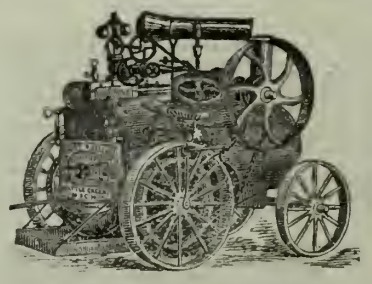
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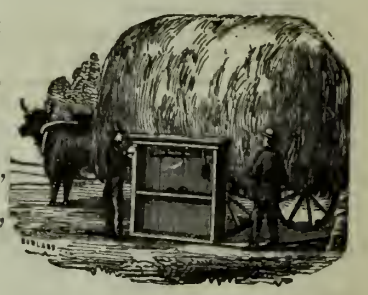
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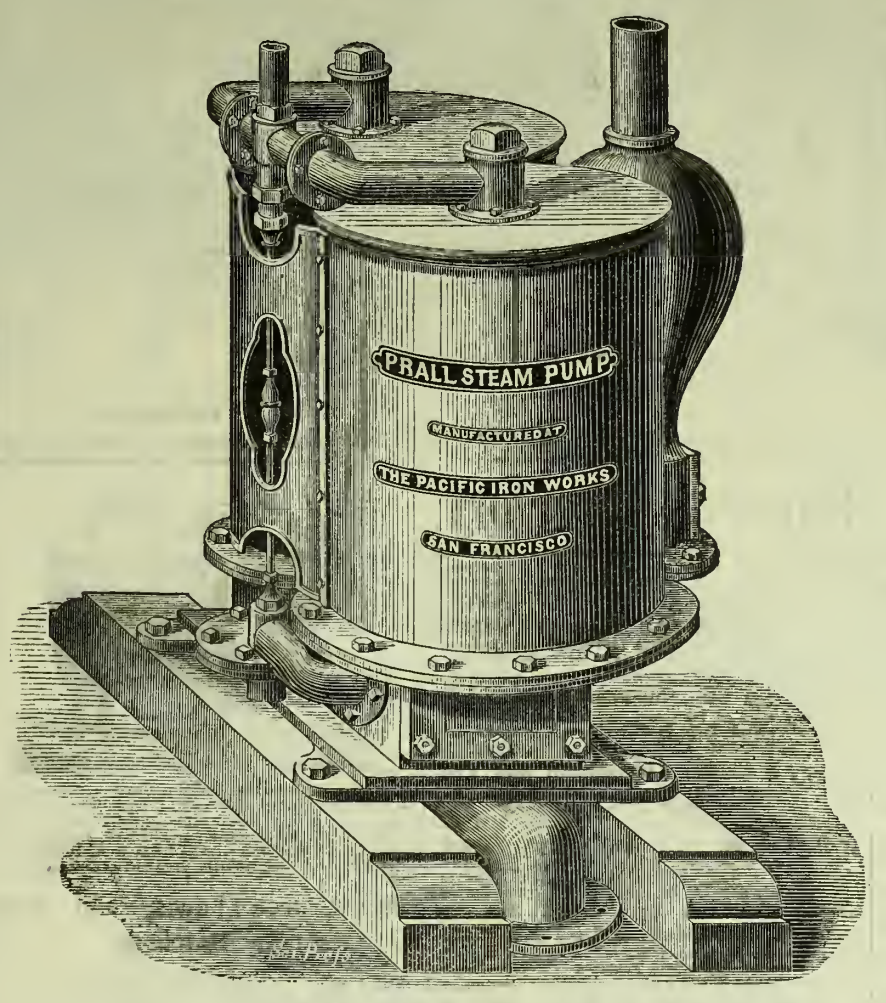
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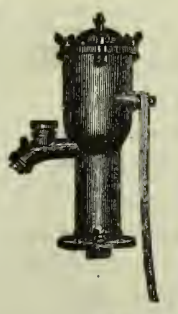
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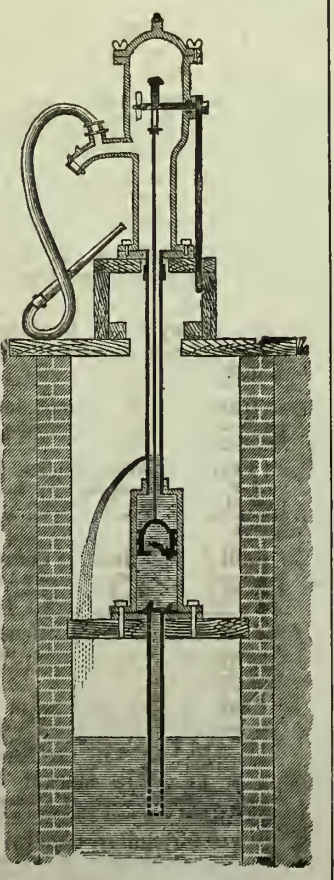
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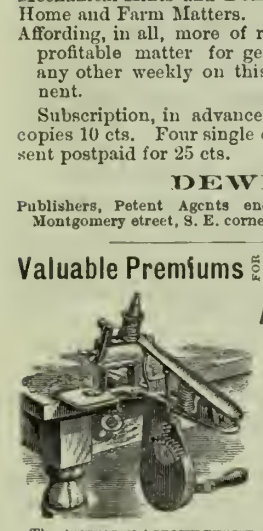
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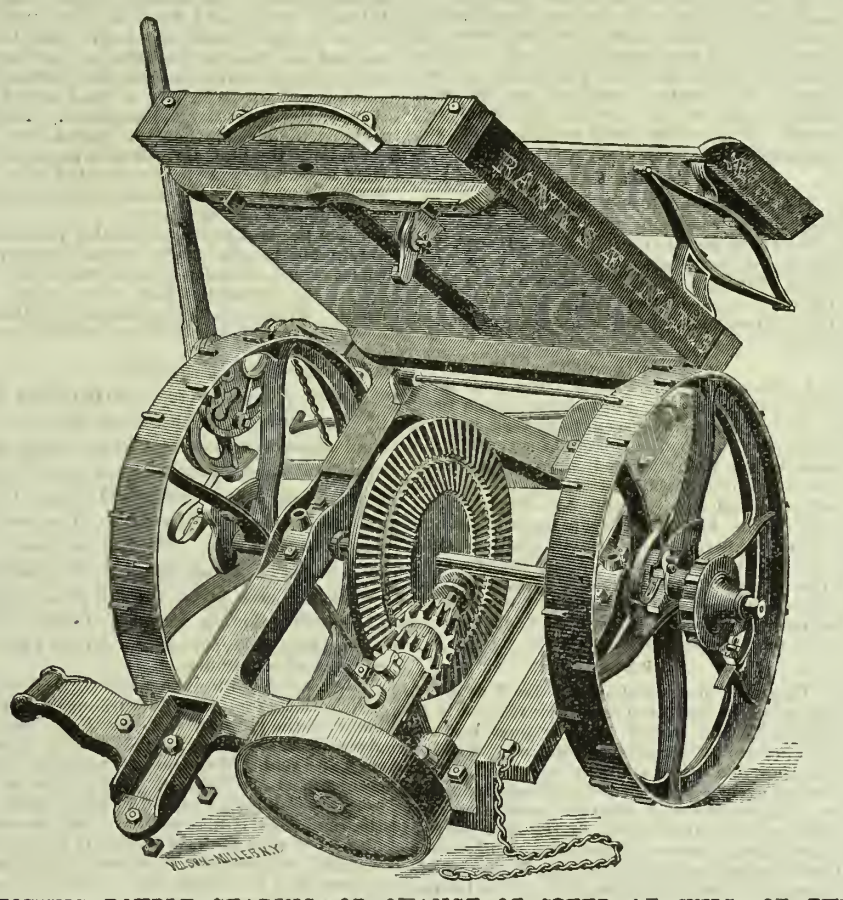
Volume V.] SAN FRANCISCO, SATURDAY, MAY 24, 1873. [Number 21.

The "Ætna" Mowing and Reaping Machine (With Patent Double Motions.)

We present herewith some illustrations of the new mowing and reaping machine (the "Ætna") introduced this season by Messrs. Treadwell & Co., of this city. This machine is having a great run East, and its popularity there has brought it to the Pacific States, where it has already proved its many good qualities. A few of its good points, as stated by the manufacturers, are:

1st. The double motion, which is in itself the most simple, effective and valuable improvement ever yet introduced on the mowing machine. By this arrangement the speed of the knives or sickles may be changed at will, from slow to fast or fast to slow, or thrown entirely out of gear; thus placing within the hand of the driver the means of regulating the speed of the knife, to suit any grain or grass, without in the least disturbing the gait of the horses. This advantage alone places the "Ætna" ahead of all competitors; either as a mower or a reaper, or as a combined machine.

2d. The Self-Rake.—This attachment is every way the most simple and effective of any yet before the public. Much effort has been expended and costly experiments made in developing the excellence of this class of machines. In California, above all other States, not only a good self-rake is required, but the very best machine in the country. It will not answer to alone do good work, but the greatest possible simplicity, lightness and ease of operation must be secured, to answer the demands of the times. Our farmers want a self-rake that is strong and durable, and entirely under the control of the driver. The "Ætna" self-rake accomplishes these results with less complication, with less power, and less friction, and weighs fifty pounds less than any self-rake attachment that has ever been successfully applied to a two-wheeled machine. It is constructed with but a single cam; the switches are arranged to work horizontally, and are so constructed that they cannot, in any possible position, catch on the arms. The switch is also automatically closed by the movement of the roller on the rake arm, preventing two rakes from passing down in succession. The rake arms are bifurcated, each one carrying a rake and a beater, and the switch-controlling mechanism is above and inside the rake arms, where it is easily managed, and entirely protected from accident. The entire construction of the rake is so simple and so compact, and at the same time so effective, that, combined with the double motion "Ætna" machines, they constitute what we now believe to be the best self-rake combined machines in the world.



SHOWING DOUBLE GEARING, OR CHANGE OF SPEED AT WILL, OF THE "ÆTNA."



THE "ÆTNA" MOWER IN THE FIELD.

3d. Its Portability.—The cutter bar of the "Ætna" can be folded to the side of the machine and secured in that position with the greatest facility, and without throwing any weight on the horses' necks. All the running parts can be thrown out of gear, and the driving wheels thus made to run loose like the wheels on a cart; in this way the "Ætna" can be transported with the ease of a light wagon, rapidly from field to field, or any required distance, without noise, without tiring the team and without the least wear and tear of its running gear. These advantages will readily be appreciated by all who use mowing machines.

The "Ætna" combined mower and self-rake reaper has two cutter-bars, besides the self-rake attachment, thereby securing to the purchaser a complete light, yet strong and durable mowing machine, cutting 4 feet 4½ inches, which, by the change of cutter-bar and addition of self-rake attachment, is quickly changed into the strongest and best self-rake reaper in the world, cutting five feet six inches. The facility of the change from mower to reaper, or *vice versa*, is one of the peculiar advantages of the "Ætna." The "Ætna" is warranted to cut the stoutest alfalfa, or wild grass of the wildest or thickest kind.

Messrs. Treadwell & Co. have a stock of these machines, and will be pleased to answer any inquiries and give further information.

In another number we shall give a view of the "Ætna" self-rake reaper at work.

The Foreign Wheat Market.

From the London *Mark Lane Express* of April 28th, we extract the following, as showing the general tendency of the wheat market in different parts of Europe, as per latest advices.

Throughout Great Britain prices have been gradually hardening from too small supplies, and many places note an advance. The aspect of other European markets are the same. In Paris, the flour market has been rising further, buyers not obtaining any concessions from the late advance. At Marseilles, prices firm. In Belgium prices are tending upwards. At Liege there was so little good wheat that millers were willing to pay an advance. At Antwerp a noted demand for good wheat at advancing prices.

At Brussels there was a rise of one shilling per quarter on wheat. Stocks of wheat were becoming low at Maestricht, prices where higher. Hambro, the upward tendency of prices was confirmed, supplies falling short of the demand, insomuch that imports were ordered from England. At Danzic, fine wheat remained scarce and dear.

At Berlin prices still pointed upwards. Cologne noted prices very firm for wheat. In Hungary prices were firm. At Naples there was more firmness in wheat. At Odessa, scanty arrivals kept rates very high. At Liverpool the import arrivals for the last week show a marked falling off in wheat. Our export totals show an increased demand for wheat. Flour in both sacks and barrels command increased rates.

In the foregoing we fail to see anything in the condition of the foreign wheat market, that would indicate the least probable falling off in the value of our incoming surplus wheat crop for export.

Black Bass for California.—Livingstone Stone, Fish Commissioner for California, writes us under date of May 12th, relative to the experiment of introducing the Black Bass of the western lakes, to the waters of our State, that, "so far the preparations for the fishes' overland journey have been very successful, but the difficulties of getting them alive to California are enormous. I hope people will not expect too much, for the undertaking is almost an impossibility.

I think the car containing the fish will start about the 25th of May."

CORRESPONDENCE.

The Late Severe Frosts.

EDITORS RURAL PRESS.—During a brief, but extended tour through the counties of Napa, Lake and Solano, I gathered a few facts and incidents, that I fancy might be of both profit and interest to the many readers of your widely extended and interesting sheet.

Traveling through the beautiful sections of Napa and St. Helena valley, the effect of the "frost-king" was very apparent. Where should have been—as erst in former seasons—greeness, verdure and bloom, were found instead, whole vineyards and orchards, temporarily devastated by his untimely nip.

Many a friendly face met our gaze, from which could not be entirely banished the look of disappointment, even in the warm glow of hospitality.

Passing onwards toward the borders of Solano county, we found even the oak trees, those hardy "monarchs of the glen" attesting, by their shrivelled and blackened leaves, to the intensity of that night of unprecedented cold.

Farther on, in Green Valley the effects were less and less severe, and as we approached the interior, we came upon a region of singular and unsurpassed beauty.

This section, commencing in "Lagoon Valley" and extending some ten or twelve miles north to Putah Creek, lying on the east side of the Coast Range, with a chain of hills separating it from the Sacramento Valley, was clothed in such verdure and luxuriance, as proved it to have entirely escaped the malison of the frost.

Much has been said of the scenery in the various sections of our State, but seemingly none can outvie the charms of this delightful meadia. Rolling hills, sequestered woods, olden oaks chanting their "century hymn," skies of cerulean hue, all lend their aid to enchain the heart and captivate the eye of the lover of the beautiful and grand. Broad acres of waving grain, vineyards of luxuriant green, on either hand gleaming out from the most unexpected spots, attest the richness of the soil, and the salubrity of the climate.

In our course we came upon vineyards with shoots, even then a foot or more in length: vegetables of advanced growth on which ere this, the denizens of your market have long since regaled themselves. These, with trees, ladened with ripening fruit, suggested both the possibilities and results of this truly "delightsome land," not by any means a myth, but identical, indeed, with that region of old "flowing with milk and honey," so welcome to the weary wanderer.

Leaving with regret, these pastoral scenes, and journeying over a very good road, up what is styled "Putah Creek Cañon" we suddenly came upon a view, which in grandeur and sublimity, might well vie with many a scene in the famous Sierras.

Towering mountains, limpid streams and sparkling cascade, in rapid alternation, drew from the passing beholder, many an exclamation of delight and undisguised wonder. Bare, rugged and unyielding, these giant rocks, in many a pinnacle and tower, lifted their defiant, front unscathed by the storms of time, a sublime monument before the admiring and arrested eye!

Crossing the stream and passing over rolling hills, we emerge into the beautiful valley of Berryessa, where again the effects of the frosts were plainly visible, and learned that the fruit was mostly destroyed.

But time would fail us to speak of the varied objects of interest that arrested the attention, without extending this article to an undue length. So with many a wish for the prosperity of our youthful State, we say a kind adieu.

THEO.

Napa, May 7th, 1873.

We hope "Theo." will take another trip among our beautiful valleys, and again favor us and our readers with a description of what he sees, for the picturesque and beautiful in nature are evidently his.

May he find another section of country as exempt from frost during the first week of April last, as that which he describes; then let its locality be known to the world through the *Rural Press*, and its value per acre will be doubled.

Toledo, Ohio.

EDITORS PRESS —A day trip through Ohio to this place shows little but mud and water, with here and there green patches of wheat, looking quite well, but backward. The lake is full of ice, looking more like March than May. Season very backward, being so wet that farmers could do but little yet. When we have run over the Far West and take time to stop and see the wealth of soil run past in all these fine States, only requiring a little draining to become the best of land, we shall, indeed, realize our best capabilities of production. This State, if properly tilled, is capable of feeding a nation, and the same may be said of most of our great Western States — so called. May the policy of our country be to build up and develop our great agricultural resources.

J. B. JONES.

Toledo, Ohio, May 5th, 1873.

From Sutter County.

EDS. PRESS:—Yuba City is pleasantly situated on the west bank of Feather river, and has a new and prosperous appearance, although one of the oldest American towns in the State. For many years it hardly held its own, being subject to overflow; but about three years ago the people took steps to build a new and substantial levee, since which time the place has greatly increased in business, and is now growing rapidly, and bids fair soon to equal Marysville.

The old residents conferred a blessing on the rising generation by planting a goodly number of shade trees, affording a relief from the excessive heat of our long summers, and attracting thousands of birds to make spring merry with their warblings.

Fruit.

Fruit is good and abundant, although the orchards are not very extensive. This year the fruit looks well and the trees are heavily laden, excepting the early apricots which were partly blighted in the bud; (probably by the heavy frosts in December) but those remaining appear to be of a better quality.

Mr. Butler tells me that last year he furnished the first cherries for the San Francisco market, and might have done the same this year if he had not disposed of them at home. His cherries are of a good quality, but not very large. The earlier varieties are all gone. Strawberries and other small fruits are neglected. Some of the fruit stands being supplied direct from San José.

Hay and Grain.

The farmers have commenced haying, the crop will be very light, many places along the tules where usually there is a good supply of grass, this year there will be but very little. Some of the late grain will also be a failure; but grain as a general thing is moderate or fair, and on summer fallow may be pronounced good.

Farmers' Club.

In this county there is a large and active club, numbering about one hundred and twenty-five members, who seem to be very much in earnest The time of the club for the last few months has been devoted almost entirely to the formation of some better system of united action, which finally resulted in the incorporation of the Farmers' Co-operative Union of Sutter County, with a capital stock of $50,000, one thousand shares of fifty dollars each. The share holders have found it to their advantage already in the matter of buying sacks at reduced rates, and on ninety days' credit they feel encouraged to go ahead.

Politics.

There is a movement among the farmers to ignore party lines, and hereafter vote only for good men who attend to their own business and keep clear of wire pulling and trickery. The fact of a man's running round and buttonholing every one to secure a nomination, will be considered sufficient to condemn him. The farmers are getting awake to the necessity of good reading matter, and quite a number have lately subscribed for the RURAL PRESS, considering it the best agricultural paper to be had.

W. W. K.

Yuba City, May 12, 1873.

Thrush and Mockingbird.

ED. RURAL PRESS:—I have laid the RURAL aside, after reading about the "Music of the Thrush," to say a word in defense of my favorite, the Mocking Bird. I have never seen a Nightingale, but in my distant Southern home, I have often listened with delight, to the Thrush and Mockinghird, as they sang side by sid in the copse.

Their notes are very similar, with this difference, while the mockinghird trills forth his notes one after the other, with the greatest rapidity, in imitation of all the birds of the greenwood, the thrush's notes are fewer and he sings with a little hesitancy, as if he had not learned his lesson well.

For a time I thought when I heard him sing, that it was a young mockingbird, till once I was taking a stroll through the woods, I noticed one in a bush near by, and saw that it was the little brown thrasher, thrush, or as some call him, the French mockingbird.

The mockingbird is very domestic, every Spring numbers of them build their nest in the honeyankle and climbing rose-bushes, which twine luxuriantly over the piazzas of my home, and in the magnolias and sweet gums, which line the avenue.

Two years ago, I found a young one, that had ventured out too esrly from the shelter of its mother's wing. I caged the little songster and in time he proved to be an extraordinary singer. I became so much attached to him, that on coming west, I brought him with me, as far as Iowa, where I sojourned a short time. He was a great wonder, to the Westerners. On cars and steamboat, he sang so loud as to be heard above every other stir, and attracted more attention to me than was quite agreeable. My aunt, with whom I left him, writes that he imitates all the noises of her canary, and sings from morning till night. I thought to say a word about one of our southern grapes. the Scuppernong, but have already taken up too much of your valuable time. I have often enquired if there was such a grape in California, but no one here knows anything of it.

Should you desire it, at some future time, I would like to say a few words concerning the Scuppernong. E. G. W.

White River Valley, Nev., May 6th 1873.

We shall be pleased to hear from our correspondent on the merits of the Scuppernogn grape. That it is a highly esteemed variety, of the Southern Atlantic States we are aware; but like the Catawba and many other natives, has not become a favorite in California for extended culture.

Encomiums of the Rural.

EDITORS RURAL PRESS:—Farmers' Club met Saturday, May 10th. Although not as full an attendance as I should wish to see, still it was one of the most interesting meetings we, as a Club, have ever had. It was a matter much regretted by every member present that no notice of any of our meetings had ever been taken by the RURAL. Could you have heard the encomiums freely expressed by members present I think it would have made you feel a little proud.

The President taking a copy of the RURAL from his pocket asks: "Do you all take the RURAL PRESS?" Mr. D. says. "I do;" Mr. M., "I do;" Mr. G., "I do;" Mr. C., "I do," and so it goes around the hall. Mr. G. remarked he was in the habit of sending his RURAL home, as it gave more information both agricultural'y and socially of the Pacific Coast than he could give in a long letter. Another member remarked that the RURAL was now considered the best agricultural paper in the United States. A paper devoted not only to the interest of the farmers, but to every manufacturer and producer.

From the best and most reliable information obtainable by the Club, it would appear the wheat crop in Sonoma County would be fully up to the average. Hay crop better than usual. Fruit crop medium to good in this immediate vicinity, but in other localities not so good as usual. C.

Petalnma, May 12th, 1873.

We are pleased to receive so flattering a notice, emanating from the source it does. We shall endeavor to keep the RURAL fully up to its present standard and improve upon it wherever we can. We are surprised to learn that no notice of the club referred to, has ever appeared in the RURAL. We had supposed that upon pages 12, 36, 52, 100, 132, 164 and 228, where we have given the full proceedings of the Sonoma County Farmers' Club, that we were giving the report of the club to which our correspondent allludes.

We are obliged to take our reports from the with, "Farmers' Club," without giving the name of the club in full, we have generally given them the name of the county in which they are held. We make it a point to publish *every* report of Farmers' Clubs that we can possibly obtain and intend to do so until—with the reports of Granges—that they become so numerous that we have not room for all, when we shall endeavor to give a general summary of the whole, leaving out such portions as we may deem of the least importance.

If our correspondent will give us the name and style of his club, and proceedings of same from time to time we shall always endeavor to give them publicity.

A Valuable Invention.

The trial of Mr. Dubois's mower attachment was made May 13th, in Mr. Reeve's field, at the junction of the Almaden and Monterey roads, in the presence of a number of spectators.

The attachment is made for the purpose of cutting lodged grain, and to prevent the cut grain from falling against that standing so as to render it necessary to remove the same by hand. The invention consists of a shoe or mould board fixed to the outer end of the sickle-bar, and a sweep rigged so as to project above and a little in front of the knife.

When the machine is in motion, the sweep separates the swath, which the shoe turns out and away from the standing grain. By this means the swath is laid with the butts to land, and that too as evenly as it could be done with a cradle, leaving a space of above eight inches between the cut swath and the field.

There was a most thorough test of the appliance yesterday. The grain was heavy and a stiff wind was blowing, but notwithstanding this the machine went right along, and in several miles of swath never lodged a single stalk. To make the comparison complete, another machine, of exactly the same make, but without the attachment, was brought into the field and made to follow Dubois' machine around the swath.

While Duboise went along without an interruption, the other machine dragged the grain, clogged the knives and lodged the grain so as to require the services of an extra hand to remove it before the second swath could be cut. The invention is a most simple one, and the only wonder is, that it was not thought of before. Its utility is so apparent that it only needs to be seen to be appreciated by every one who has had anything to do with the operations of a reaper. Another exhibition of this machine will be given in a short time, in the field of Mr. S. A. Bishop. This will take place as soon as the grain is sufficiently ripe enough to cut, and we hope all our agricultural friends will be there to see.—*Mercury*.

Barren Fig Trees.

EDITORS PACIFIC RURAL.—I have a fig tree in my garden which for several years has dropped its figs when about the size of nutmegs, in fact it has never ripened a fig, though the fruit sets freely twice a year. Suckers and cuttings taken from the same tree have invariably continued the same bad habit.

I saw while in San Bernardino last year large, fine looking trees, subject to the same fault and on inquiry I learned that they were purchased from the same nursery and during the same year that I obtained mine. Now the cause is not owing to the soil, location or mode of culture, as other trees set out at the same time on the same soil, and treated precisely like these, never failed to bear freely. Can you give the cause and remedy? E. W. M.

In all ages and in all countries where figs are grown, there have been barren fig trees. In early scripture times, it was recommended to "dig about them" and then if still unproductive, to "cut them down and cast them out." The digging about them of the olden time, was equivalent to the "root pruning" of the present day. Over luxuriance in the growth of wood during the fruiting season, is believed to be the cause of the tree casting its fruit, by robbing it of its due share of nourishment.

Downing says:

Happily the system of *root-pruning*, recently found so beneficial with some other trees, is in this climate most perfectly adapted to the fig. Short-jointed wood, and only moderate vigor of growth, are well-known accompaniments of fruitfulness in this tree; and there is no means by which firm, well-ripened, short-jointed wood is so easily obtained as by an annual pruning of the roots—cutting off all that project more than half the length of the branches.

In this way the fig-tree may be kept in that rich and somewhat strong soil necessary to enable it to hold its fruit, and ripen it of the largest size, without that coarseness of growth which usually happens in such soil, and but too frequently renders the tree barren. The mode of root-pruning we have already described, but we may add here that the operation should be performed on the fig early in November. When this mode is adopted but little pruning will be necessary, beyond that of keeping the plant in a somewhat low and regular shape, shortening in the branches occasionally, and taking out old and decaying wood.

Cranberry Culture.

EDITORS RURAL PRESS:—I noticed in the RURAL of May 3d, an item on cranberry culture that interested me not a little, and I would be pleased to have a little information about growing the same. First, what soils are the best adapted to their growth? and second, is it known whether or not, if they can be successfully grown on marsh lands, by having the same ditched or dyked in such a manner as to prevent its overflow with the tide water, as artesian water can be furnished for irrigation at no great expense in most instances? An answer to the above, with any additional knowledge that you may deem necessary to add, will be most thankfully received.

The parching winds of the past few days have made sad havoc with the crops in this vicinity.

T. L. K.

Mountain View, Santa Clara county, May 13.

The best soils for the growth of the cranberry are those composed almost entirely of sand or gravel, naturally wet or where they can be easily and certainly irrigated when needed with fresh water. Reclaimed salt marsh will grow cranberries, but the soil should first have a coating of 3 or 4 inches of as pure sand as can be obtained, this surface coating enables the cultivator to easily keep out all weeds and grass, an indispensable requisite to success in the culture of this berry.

If planted on rich muck or peat, they grow rank and strong sometimes ten or twelve feet in length, and cover the ground over with a mat of vines three or four inches thick; and as the fruit grows on the end of the shoots the rank growth throws out but few buds, but if sanded over the shoots are of short growth, the plants become rooted and throw out stronger fruit buds. There are large quantities of land all over our country that would grow large crops of fruit, that is now comparatively worthless, too wet and cold for grass, if properly prepared by draining and sanding would give good results. In low lands, where you will find them growing in their natural state, it will be covered with moss where no organic matter exists; they are rarely if ever found on muck or peat, only in mosa or sand; in moss the vine is hardly ever seen, only the fruit is on the surface of the moss, on sand the vines are short and throw out bearing shoots near the surface. In regard to land that is wet and spongy, it should be drained and the surplus water left about ten or twelve inches below the surface, it should then be leveled, and pure sand, without any organic matter in it, spread over the ground in order to keep the surface loose and to prevent foul grass from choking the plants; some growers prefer putting on two to three inches of sand before planting and after two years growth, spread one or two inches more, which is doubtless an improvement. Where the sand is mixed with soil or top strata, it will invariably throw up weeds, and large increase of labor is necessary in keeping the ground free.

Home and Farm.

Wayside Chat.

[By Mary Mountain].

In going back to a place of former residence one of the very best things is to find bright looks and cheery words of welcome coming from people who had seemed heretofore quite careless and indifferent of your welfare.

When people die it is considered a rather polite and commendable thing to forget their bad and remember and magnify their good.

So in visiting Knights Ferry it was almost as interesting as if I had died and then suddenly popped up again and the few pleasant memories that remain after some years of gentle and charitable forgetfulness.

After the cordial hand-shaking, and the cheerful ignoring of the mutual increase of gray hairs and wrinkles, and the pleasant congratulations upon growing younger instead of older, how I wondered why we had not always been so glad and appreciative of each other. If only I had these good neighbors again, would I not make much of them?

Why must the good and agreeable qualities wait always for distance or death to lend such enchantment as carries them above par?

And if we turn again to "realize" this flattering premium, we find mayhap a "falling market" wherein again and always again "Blessings brighten as they take their flight."

Knights Ferry is still a young town and sturdily survives the flight of many an old blessing.

Gone is the County Court business, the grandeur of trial by jury, the eager acquittal of prisoners who laughed at the farce of mock justice.

Gone is the business of freighting, the long line of clipper-built wagons, the terrible oaths of the teamsters who walked level full of bad whiskey.

Gone is the business of mining, the clatter of pick and of shovel, the rumble and swash of the tailings, the weekly incoming of gold dust to gladden the hearts of the merchants.

Gone is the hope of a railroad, the narrow-gauge air-line of fortune; the magic that stirs a whole country and quickens the pulse of dull business.

But many fair homes are left, and the friendly people seem very little troubled by the feeling of "goneness," but enjoy as much comfort and content as average humanity.

During the last ten years there has been much and often fatal sickness hereabout and all along the river bottoms, caused by malaria. The whole trouble is generally ascribed to irrigation, and that must bear a large share of blame; but we irrigated some years before the great flood of '62, *and the sickness dates wholly since that event.* It develops now the curious freak of moving onward and upward into the mountains; and our foot-hill friends are jubilant over this good riddance of the old intermittant — "blessing." (?) Let me joyfully prophecy that

> "Gone is the nuisance of "shaking,"
> The chill and the hot flush of fever,
> The terrible headache and back-ache
> That conquered the souls of the strongest
> And made life a thing to be hated."

The voice of the preacher is seldom heard in the neat little church; but children gather in Sunday-school, and a few faithful parents join in Scripture teachings and in singing the praises of our Lord.

Away to the southward stretches

A Fine Farming Country,

And it was good to hear that the farmers are generally free from debt and making improvements. Wherever this is true, the coming years will find better houses and barns, better farmers and farms, healthier and happier wives and children. Good cheer be with them all, and length of peaceful days.

Coming homeward on the last link of the great Central Pacific, it was pleasant to notice the bright animation of the overland passengers. The beautiful green country had taken them by surprise; for although they had been told of the swift and wondrous change from snow-banks to roses, green peas and strawberries, they could not make it real until here they were steaming rapidly through miles of fairy land, and wondering yet if it could be true that the gloom and storms of winter were left behind forever.

Said one to me—"They told about coming to green grass, and I asked them to let me get out and roll, if we found a spot big enough, and before long we came out on this great country, completely full of grass and flowers. I soon gave up the notion of rolling all over the *biggest spot.* Why, if folks at home could see what we've seen to-day, there would be a stampede, *sure;* not one that could get away would stay there through another such awful winter as we've just had. I am strong and healthy, but several times this winter I have had hard work to keep from freezing stiff in my tracks. Some of the sick ones aboard this car have hardly dared put their noses out of doors for months, and now they are like children—perfectly delighted to see bare ground, and step out without danger of slipping down on the ice." Yes, it was a treat to see the glad, tired faces of the sick who had come so far to find "bare ground;" and I hope they may also find new lease of life in genial Santa Barbara and other invalid nooks.

Doubtless it is true—as this joyful pilgrim so earnestly represented—that Eastern people fail to comprehend how a few days travel would bring them safely away from the rigor and peril of their long winters. It is also true that our fine climate makes some of us rather lazy—inclines us to trust more to luck than to "hard knocks and elbow grease."

But as well-directed laziness makes a pretty fair living and meets no fierce penalty of starvation and biting cold, it may safely be concluded that here is the Paradise for folks of the

"Happy-go-Lucky" Sort.

Gliding through the lovely Santa Clara Valley one may easily believe that Nature invites to indolence and will reward with year-long smiles all who admire her beauty and trust to her bounty.

One rapturous look in the gay and festive spring time—one long, long look to the far-away hills softly dimpled with cloud-shadows, or swelling in graceful curves, or broken in huge, grand ruggedness—only one look through the car window made me fall in love with laziness and wish I had nothing to do but look and enjoy to my heart's content.

And what but the captivating laziness prevents the writing of a great deal of bad poetry amid such enchanting scenes? One cannot help *thinking* poetry, and wondering whether the lucky citizens of this modern Arcadia are in a chronic state ot enthusiasm or whether—as is sometimes the case in social relations—"familiarity breeds contempt."

Nay, in the case of mother Nature there can never breed contempt; but her dear old smiles are often powerless against the cold shoulder of indifference.

Effects of Tar on Fruit-Trees.

I wish to state a curious effect of tar upon fruit-trees which came under my observation this year, and I hope it may prove a warning to all your readers who may think of painting trees to prevent the hares or rabbits from barking them, or for any other purpose. These trees were painted from the ground upward, one or two feet; and almost every tree—apple, pear, peach, quince and all — ceased to grow painted, while that part of the body above the painted portion continued to grow, expand, and thrive, as if nothing had happened—bark, branches, and leaves all looking very thrifty. A few of the trees died suddenly while in full leaf; the others are now fine-looking above, but the body, where the tar covered it, looks as though it had a laced jacket of iron around it for one year, and is a half inch or more less, in diameter. I think the whole orchard will finally die; for some of the trees, from weakness of the stem below and growing weight above, are toppling over. Does this not show that the entire bark of a tree, as well as the leaf, is an organ of respiration? I shall continue my observations, and give you the result. —*R. N. J. Wilson in Southern Farm Home*

Sowing Different Cereals Together.—Of late years the attention of several experimental English agriculturist (as well as some Canadian) has been turned towards the probability of increasing the yield per acre of various cereals when sown together in the same field. There seems little doubt that a much larger yield can be thus obtained. Instances are quoted where peas, oats, barley and wheat, all sown together, have produced a very large yield. This plan has been especially successful where various sorts of wheat alone have been sown together, or, as we should term it, a mixed sample of seed. One man mentions a yield of upwards of seventy bushels of this mixed seed per acre, and this great crop was composed of four different sorts of wheat. A most intelligent farmer, in Pickering, lately told me he had succeeded in raising upward of sixty bushels an acre of mixed wheat and barley. Another farmer, from lower Canada states that eighty bushels of mixed barley, oats and peas, and also states that in his section it is quite a common thing to thus mix seed. A correspondent in England tells me farmers in his locality find mixing various kinds of wheat often very successful, and lately has been much practiced.—*Corr. Canadian Farmer.*

A Sensitive Dog.—A Troy family having a false grate in one of the rooms of the house placed some red paper behind it to give the effect of a fire. One of the coldest days last Winter, the dog belonging to the household came in from out doors, and seeing the paper in the grate deliberately walked up toit and laid down before it, curling up the best way to receive the glowing heat as it came from the fire. He remained motionless for a few minutes; feeling no warmth, he raised his head and looked over his shoulder at the grate; still feeling no heat he arose and carefully applied his nose to the grate and smelled at it. It was as cold as ice. With a look of most supreme disgust his tail curled down between his legs, every hair in his body saying, "I'm sold." The dog trotted out of the room, not even deigning to cast a look at the party in the room who had watched his actions and laughed heartily at his misfortunes.

Miscellaneous.

The Mexican Method of Making Hard Lime Floors.

Gen. T. G. Ellis has recently communicated to the American Society of Civil Engineers some interesting facts with regard to the manner in which the Mexicans make hard lime floors, sidewalks, roofs, etc. We condense from the *Journal of the Franklin Institute* for the present month:—It is well known that the Mexicans, in many localities make floors and pavements of lime and sand over which horses may travel for an indefinite length of time without making thereupon any more impression than would be made upon a smooth surface of granite or slate.

In making these floors the limestone used is a very hard, blue material, calcined and slaked as soon as cool. It may be used immediately after slaking or carefully kept in barrels four or six weeks. In making the floors, a layer of broken limestone, three or four inches thick, is first laid evenly over the surface of the ground. The stone being about the usual size for macadamizing roads; over this a mortar of about two parts of sand to one of lime is carefully and evenly spread to the thickness of one and a half to two inches; this is allowed to remain for about twenty four hours, or until the surface has become quite dry.

The floor is then thoroughly pounded all over with a tool composed of a block of wood about a foot square and three inches thick, having a handle rising from the middle, so that a man could stand while using it. The whole surface is beaten over with this ram until it is again as soft and moist as when first laid. This operation of ramming brings the water in the mortar to the surface so as to form a layer of semi-fluid substance on top

The floor is now again allowed to dry, and again beaten over each day for about a week, or until the operation brings only a slight amount of moisture to the surface.

Immediately after the last pounding the surface is polished as follows:

A smooth, nearly flat, water-worn stone, a little larger than the fist, is selected, and with this the whole floor is laboriously gone over, rubbing down and leaving the surface of the lime as smooth as a piece of polished stone.

In less than a week the floors made in this way are sufficiently hard to bear the weight of a horse without indention.

Roofs made in the same manner are perfectly water-proof and unaffected in any manner by sun or rain. In the Mexican city of Monterey, the sidewalks in the principal streets are made in this manner, and last for years, wearing through only like blocks of stone.

In making floors, an earthy reddish pigment clay, colored with sesqui oxide of iron is powdered over the lime just after the last pounding and before polishing. The pigment is thus ground into the upper surface of the composition, giving a soft brownish tint.

The great durability and strength of these floors or pavements is said to be entirely owing to the repeated pounding operation to which they are subjected; as the same materials applied and dried, in the ordinary way, without pounding, will not harden so, but that they will be readily indented by the round of a chair or a boot heel.

It is believed that this method of preparing hard surfaces has never been practiced outside of Mexico; although it seems singular that it should be used so generally by a neighboring nation, and be wholly unknown to our builders.

A Famous Armorer.—Andrea de Ferrara, was the most famous armorer of modern times. He first came into note in the "Highlands of Scotland." It is said that he was the only person who could forge armor that would resist the Sheffield arrow-heads, or make swords that would vie with the best weapons of Toledo and Milan. He is supposed to have learned his art in the Italian city, whence he was called, and, under the patronage of the King of Scotland, to have practiced it in secresy among the Highland hills, as all his genuine blades were marked with a crown; and before his time no man in Great Britain could temper a sword in such a way that the point should touch the hilt and spring back uninjured. He is said to have worked in a dark cellar, the better to enable him to perceive the effect of the heat upon the metal, and to watch the nicety of the tempering; as well as possibly to serve as a screne to his secret method of working. Many of his blades, with new basket hilts, are to be found in the Scottish regiments of the present day.

Tidal Power Machine.—A practical trial recently took place in Brooklyn of Edward W. Morton's machine, worked by the rise and fall of the tide, the power thus derived to be utilized for mechanical purposes. The contrivance was tried at the foot of South Tenth street, East River, before a large number of persons interested. The machine works by means of a "float," which, as it rises and falls with the waves or the tide, propels the machinery to which it may be attached. At the trial it was geared to a saw, and worked with the full rapidity of a circular saw run by steam power, although, perhaps, not quite so uniformly.

Turpentine as an Antidote to Phosphorus.— Turpentine oil has often been recommended as an antidote to poisoning by phosphorus. For this purpose it is essential that it contain oxygen, which is the case of ordinary oil of turpentine not recently rectified. The oil is best introduced into the stomach in gelatinous capsules, 100 grains being required to neutralize one grain of phosphorus.

Some have supposed that turpentine has the power of checking the oxygen-stealing action of phosphorus and phosphureted hydrogen in the blood. Dr. Kœhler, however, thinks that at first a genuine chemical compound in formed, by oxidation of the phosphorus, and that this then unites with the essential oil to form a second compound which is harmless.

More recent experiments confirm the latter view of the case. If three-fourths of an ounce of phosphorus be gradually added to two pounds ordinary turpentine oil, warmed to 104° Fah., and the mixture be shaken on the sand bath, there crystallizes out, on cooling, a white solid, which is separated from the excess of phosphorus by crystillization from alcohol. This substance he calls *turpentine phosphoric acid.* When turpentine is administered in cases of phosphorus poisoning, this acid is discharged in the urine, and is found in the alkiline distillate by distilling the urine. This distillate has the power of reducing corrosive sublimate to calomel, and precipitates metallic silver from solutions of its salts.

When the turpentine phosphoric acid is heated in a stream of hydrogen at 104°, inflammable phosphureted hydrogen is involved.—*Am. Artisan.*

A Beautiful Experiment on Sound.— The following beautiful experiment, described by Prof. Tyndall, shows how music may be transmitted by an ordinary wooden rod. In a room two floors beneath his lecture-room, there was a piano upon which an artist was playing, but the audience could not hear it. A rod of deal, with its lower end resting upon the sounding-board of the piano, extended upward through the two floors, its upper end being exposed before the lecture table. But still no sound was heard. A violin was then placed upon the end of the rod, which was thrown into resonance by the ascending thrills, and instantly the music of the piano was given out in the lecture-room. A guitar and a harp were substituted for the violin, and with the same result. The vibrations of the piano-strings were communicated to the sounding-board, they traversed the long rod, were reproduced by the resonant bodies above, the air was carved into waves, and the whole musical composition was delivered to the listening audience.—*Nature.*

Imitation of Marble.—The preparations of slate in imitation of marble appear to be largely coming into use at the East. The imitation is prepared in the following manner. The slabs of slate are first surfaced by a planer, and brought to the required thickness. Patterns are then laid upon the slabs, and the mallet and chisel work out the required forms and mouldings. The marbleizing is the peculiar feature in the operation. The marbleizing material is prepared in a vat, and the slab is let down on the composition, which adheres to the slate. The slab is next baked in an oven for one night, then gets a coat of varnish manufactured for that especial purpose, and after six repetitions of these processes, it is finally removed and polished, the surface presenting a beautiful appearance. So firmly united to the slate is this coating, that it cannot be scaled or clipped off, without taking the slaty particles with it.

Camphor Wood —This wood promises to become, at no distant day, a very valuable and important article of commerce. It grows freely in tropical countries, without cultivation, and especially thrives near the sea coast, where it may be easily obtained for shipment. It attains large proportions, being sometimes found fifteen ft. and upwards in diameter, and of proportionate hight. It is very valuable for carpenter's work, being light, durable and not liable to injury from insects. Its aromatic, agreeable perfume is also well known. The wood is strong and very durable, and is especially applicable for ship building, and may be applied to all purposes for which teak wood is used. Camphor wood piles have been known to remain in a good state of preservation over 100 years,

The Supposed Planet Between Mercury and the Sun.—The existence of an intra-Mercurial planet has been frequently argued upon astronomical grounds, and no objective proof of its presence has yet been presented. In further evidence of the existence of such a planet, Mr. Cowie has telegraphed from Shanghai an account of a recent observation in which he assumes that a black spot seen on the sun's disk, on March 24th, marked, in reality, the transit of the supposed planet.

The Struggle for Life Among Plants.—Each plant endeavors, almost consciously, to destroy his neighbor, to occupy his ground, to feed upon his nutriment, to devour his substance. There are armies and invasions of grasses, barbarian inroads and extirpations. Every inch of ground is contested by the weeds; the forest is a struggle for precedence; the Wars of the Roses are a perennial fend. The serenest landscape, the stillest woodland, are the mortal arena of vegetable and animal conflict.

Farmers in Council.

Sonoma County Farmers' Club.

Farmers' Club met May 10th.

This being the day for election of officers of the Club, the following were elected:

President—H. P. Holmes; Vice-Presidents, G. W. Davis, S. T. Coulter; Secretary, E. W. Maslin; Treasurer, J. Adams.

Vice-President Davis announced the result. Calls being made for the President, he responded as follows:

Mr. President and members of the club:—"I feel greatly honored by your selection of me as your President. I would have preferred to have seen some other person elected as your President, who had more time and more executive ability to discharge the duties of the office.

I accept however the office, and assure you I will zealously, to the best of my ability, try to execute the trust imposed upon me.

I am willing at all times to assist my neighbor farmers, by counsel, time and labor, to meet and discuss with them all questions which affect our common pursuit, and to do all I can to further and aid our joint interests.

The cause of the farmer I have at heart; and, looking back to the few months in which we have been associated together as a club, I see much to rejoice and much to hope for in the future. We have been but few, but what we lack in numbers we have made up in effort and earnestness. I think we have accomplished a great deal. We have scattered good seed among the farmers. We have had a few interchange of ideas, been brought together socially, learned to discuss questions of agriculture, and have received new and enlarged conceptions of the dignity, nobility and grandeur of the farmer's life.

If we do not benefit ourselves directly pecuniairly as some of us hoped; if we do not effect monetary reforms, we have done and shall do that which I have first stated, and which may be better than gold. We have nothing to regret and much to hope for. Let us keep up our organization, put ourselves in communication with our sister clubs, with the Department at Washington, continne our experiments, exchange our experience and knowledge, and we shall be proud of our labors. Again I thank you for the honor you have conferred upon me."

Aboul Granges.

Mr. Coulter, by permission, said—That formerly he was opposed to the organization of the Granges, but serious reflections had led him to adopt their views. There are now Granges all over the State. The organization is strong. What we can do as an isolated club ontside the great movement will amount to nothing. To move against monopolies, to adjust our true relations, to effect our purpose, we must join this great movement. There will be a Grange organized in this county, and we should take initiatory steps to unite with them. I therefore desire all who wish to organize a Grange to remain in the hall, after the Club shall have adjourned.

Mr. Whittaker—A Grange has been formed in Bennett Valley, and I would say if any persons desire to form a club they should do so at once, as the agent has four engagements before he meets us at Bennett Valley. He will be here next week.

Mr. ——Said he hoped the Grange would not absorb the Club.

Mr. Coulter—I have no thought of killing the Club. Indeed I think the Granges will help it. We can meet once a month, which is enough. To tell the truth the meetings have lately become a bore. We meet here, some of us coming many miles, to hear the minutes read, discuss something of no interest, and then adjourn. The Granges will enhance the interest of the club meetings.

Mr. Witherington—The plan of Patrons of Husbandry was new to me until a brother came from the West. I then had access to the books of the Granges and I found nothing wrong about them. I believe it is the only plan for farmers to organize. I am willing to engage in it.

Barney Koen—I would like to know what object to be secured by the Grangers that cannot be obtained by the clubs. The purpose is the same, the men are the same, except that in the Granges only one class of the community can join, while in the clubs all can join who have the farmers' interest at heart. Secrecy is the only mystery.

Efficiency of Clubs.

Mr. Coulter—This Club has existed for eleven months, and all that it has succeeded in doing is in contracting a debt of about $60. If the agriculturalists had organized as I once hoped they would do, we could have affected something; but they have not, and as the farmers seem to regard with favor the Grangers, the only thing left to do is to join the current. The Grangers have machinery for business. In the West they have built warehouses, railroads, elevators, formed banks, co-operative stores, and created commercial relations. They sack at first cost and ship their own grain. They have cut the rations from the middlemen. If we could succeed here as they have in the East, there are about 20,000 people in the State who would have to go to the States Prison or go to work.

Mr. De Turk—One portion of Mr. Coulter's speech should be answered. He says this club has done nothing but contract a debt. I deny it. We have first encouraged and fostered sociability among farmers. We have broken down the barriers of restraint and isolation, taught ourselves the valne of organization, and interchanged our views, theories and practices. Our meetings have been reported and published in the Sonoma *Democrat*, and have attracted public attention to our county, and thus assisted in securing intelligent immigration. The fact that we have social farmers is a strong point of attraction. We have gone further—we have created a spirit of experiment. Not less than twenty members are now experimenting with different seeds and plants, the result of which will be reported and doubtless acted upon. I hope the Club will still flourish.

Mr. Witherington—I do not object to the Club being with the Grangers—both can act together. I have not attended promptly, but it was not from want of interest, In Iowa, five months ago, there were not 30,000 members; now there are 75,000.

Mr. Coulter—I admit that the Club has done some good, but there is a great deal which might be accomplished. I see around me many members whose knowledge and experience would be beneficial to us, but who attend each meeting and never say a word. They are selfish; they listen to others, get all the knowledge they can, and give none in return. If we wish to make our meetings useful we must come with the determination to contribute to the common fund of information — not to make speeches, but to tell in a plain way what we know about farming.

Mr. Coulter—I offer the following resolution:

Resolved, That after our next regular meeting we meet once a month, on the last Saturday in each month.

On motion, laid over till next meeting for action.

There is delinquent from certain members an assessment of one dollar, levied to pay the expenses of the opening of our hall.

On motion, the Secretary was instructed to notify and collect from delinquents.

On motion, adjourned.—*Sonoma Democrat.*

San Jose Farmers' Club.

The Club met May 14, President Casey presiding.

Mr. Hobson, from the Market Committee, reported that the agent wished to remove the market to Santa Clara street, between First and Second; that the agent thought he could afford to pay extra rent from the increased business.

Mr. Holloway suggested that whatever the Committee should do, would be proper, and moved that the matter be left to their discretion. Motion carried.

The question selected for discussion next Saturday, is—

Resolved, That the great and pressing need of the farming community of Santa Clara valley, is unity of action.

Mr. Holloway wanted to know if the raising and feeding of barley in the field to hogs is not the best disposition the farmer could make of his grain, and which is the best for this purpose, wheat or barley?

It was stated that Mr. Garrigus had turned his hogs into clover first, then into peas, and then into the grain fields as it was in milk, and that they did extremely well.

Mr. Hobson wanted to know how much a good fresh milch-cow should give a day.

Mr. Garrigus thought four or four and a-half gallons.

Mr. Garrigus said, in reference to the hog question, that unless barley was commanding an extraordinary high price, it paid better to turn the hogs into the field as soon as the grain commenced to mature; and this would not only fatten the hogs, but the rooting of the animals would summer-fallow the ground, and another crop would come without planting.

Mr. Dubois wanted to know what proportion of the crop a person should have for harvesting it.

The general opinion was that about one-half would be about a fair compensation.

Mr. Burrell said that a handful of manure placed in the hills would effectnally prevent the bugs from disturbing melon and squash vines; the manure must be covered before the seeds are planted. He thought guano might answer the same purpose. A little water must be put on top of the manure when the planting is done.

Mr. Dubois said the farmers had been humbugged in regard to carbolic acid killing vermin on fowls. His wife had dipped some hens in a solution of the acid. The hens died, and the vermin are as "well and hearty as ever."

Mr. Herring said the acid should be used in strong soapsuds, and it would do its work perfectly.

Mr. Burrell said that the bugs which were in the habit of going into the shoots on fruit trees, were this year going after the grape vines, and threatened to be very destructive to them.

The question selected for the regular discussion:

Resolved, That the late decision of the Supreme Court exempting solvent debts from taxation is iniquitous, and should be resisted by the people throughout the State."

Was taken up, when Mr. Cottle said the decision was in exact accordance with Mr. Bidwell's opinion, expressed at the late meeting of the State Farmers' Union.

Mr. Carrigns said that this decision inflicted a great wrong on the community at large. The pretext for the decision was that it would relieve the farmers from double taxation, but bankers will ask a greater per cent. for loans than they did before the exemption. They will not have to pay the double taxation, but the increased per cent. will bring them no relief. But the matter is unjust on general principles. Every man should pay taxes on all his property, no matter what shape it is in; the decision is more favorable to monopolies and more oppressive to the mass of the people than any that has ever been rendered. The farmer, whose property is in cattle and lands will have to pay the tax from which the money-lenders are exempted.

Mr. Dubois said that if a man borrowed money, he knew as well as anyone if anything is charged more than the regular interest; and the money-lender says to him: "You have not to pay this tax now, and you can afford to pay us a little more interest." And this additional interest will be charged.

Mr. Cottle said there must be some arguments on the other side of the question, although he was unable to see them. He thought the decision was in direct contravention to that section of the Constitution which says that all property shall be uniformly taxed. The power of the Supreme Court to nullify a statute not in conflict with the Constitution has never before been arrogated by that tribunal. It has taken upon itself the power of making laws, and has usurped the inalienable prerogatives of the people. He thought there was neither law nor policy in the decision. The farmers will soon assert their powers in the legislatures, and then they would get their dues.

Mr. Bergland said that a mortgage or note was not property, the money for which these instruments are given is in the hands of other persons, and is being used for their benefit. This was the ground probably taken by the Supreme Court in rendering this decision.

Mr. Cadwell thought the assessment laws should be similar to those in Illinois, Indiana and Ohio, viz.: all debts owing to a person should be assessed, and all debts owed by the same person should be deducted. He thought the idea of exempting money from taxation in a State like Californiae was abominable, as it tended to oppress those people who build up the State. The decision may attract money to the State, but it will surely deter farmers and mechanics from coming here.

Mr. Hobson said he did not know whether the Supreme Court had made a mistake, or whether the mistake is on the part of the State Board of Equalization in issuing the instructions to Assessors under that decision. But a wrong has been done, and he thought the people should not submit to it even for this season. He thonght it was time for farmers to unite and go right after their rights. Nothing could be accomplished by a dozen or fifteen members, but the whole farming community should rise as one man and assert their power.

Mr. Holloway said there was a good deal of difficulty in sifting out a question which ramifys as this does. The farmers should not jump at conclusions, but should study up their case thoroughly, He asked if this decision had been sought for by the producing classes? Not at all. It has been put through by the men who control the accumulated capital of the country, and who are our enemies—who are controlling our legislatures and courts. The next thing will be that railroads are to be exempted. We must roll back this tide of oppression, and to do it we must come straight up to the mark with a stern determination. There must be no mincing of matters, but we must work, work together unflinchingly and untiringly.

The question was continued for discussion until next Saturday.

Adjourned.—*San Jose Mercury.*

Patrons of Husbandry.

Merced County Grange.

On the 3d instant a Grange of the Patrons of Husbandry was organized at Merced, with the following charter members: H. B. Jolly, W. E. Elliott, W. H. Wilkinson, Thomas Upton, N. S. Rogers, James A. Keith, M. D. Atwater, H. M. Hamilton, W. P. Fowler, E. R. Elliott, F. V. Harmon, F. O. Poor, W. W. Gray, John A. Perry Edward Clark, Mrs. Jennie Rogers, Mrs. Louise W. Jolly, Mrs. Frances J. Keith, Mrs. Fannie A. Fowler, Mrs. Laura A. Atwater, Mrs. Orisina M. Gray, Mrs. Clara M. Upton, Mrs. Catherine Clark. The officers are: Master, H. B. Jolly; Lecturer, W. P. Fowler; Overseer, N. S. Rogers; Chaplain, F. Harmon; Treasurer, T. Upton; Secretary, E. R. Elliott; Steward, W. W. Gray; Gatekeeper, W. E. Elliott; Ceres, Mrs. Fannie A. Fowler; Flora, Mrs. J. Keith; Pomona, Mrs. Louise W. Jolly.

Suisun (Solano County) Grange.

On the 3d instant the members of the Suisun Grange, numbering twenty-five in number, installed the following named officers: R. C. Halie, Master, G. C. McMullen; Overseer, Peter Long, Lecturer; Sampson Smith, Steward; J. S. Wood, Assistant Steward; Judge T. M. Swan, Chaplain; J. B. Lemon, Treasurer; A. T. Hatch, Secretary; G. H. Pangburn, Gatekeeper; Mrs. R. E. McMullen, Ceres; Miss Ella Wood, Pomona; Mrs. S. A. Long, Flora; Miss J. H. Lemon, Lady-Assistant Steward.

Salida (Stanislaus County) Grange.

On the 6th instant was organized a Grange of the Patrons of Husbandry, some nine miles from Modesto, at Murphy's precinct, in this county, with twenty-two charter members. The Grange will be known as Salida No. 8. The following members were elected officers: Joseph Reyburn, Worthy Master; Lafayette Dickey, Secretary; A. G. Carver, Overseer; George Shanon, Lecturer; Henry Miller, Steward; W. H. Chance, Assistant Steward; W. I. Ikenbury, Chaplain; Wm. Wilkenson, Treasurer; M. Byrum, Gatekeeper; Mrs. Belle Wilkenson, Stewardess; Mrs. J. D. Reyburn, Ceres; Mrs. C. Shanon, Pomona; Mrs. W. Shoemaker, Flora.

Vacaville Grange.

The Vacaville Grange held a regular meeting on Saturday afternoon, May 10th, Judge Hyatt, the Master, occupying the chair. A number of new members were admitted and several new applications were made, which will be acted upon at the next meeting. Letters from different parts of the State, from Colusa to Los Angeles, were read, asking information and assistance in the formation of granges in their several localities. The farmers of the State seem alive to the importance of these organizations; they are springing up in all parts of the State, and it is believed there are already the requisite number (15) to authorize the organization of a State Grange.

Articles and extracts were read from the Sacramento *Union*, San Francisco *Morning Call*, etc., indorsing the resolutions and platform adopted by our grange at its previous meeting. Communications from other granges, also commendatory, were presented, all agreeing that our course is the true one to insure safe and honest legislation, and a guarantee that the farming interests shall no longer be neglected.

An address by a committee of the Napa Grange was read and approved.

The Grange adopted a code of by-laws, and chose a committee, consisting of the Master (Judge Hyatt,) Overseer (Dr. Dobbin,) and members E. R. Thurber and A. C. Hawkins, to confer with the managers of the narrow guage railroad recently inaugurated at Benecia, as to the route proposed for the road, its plans, prospects, etc.

A series of resolutions on the subject of Chinese labor, immigration, etc., were introduced, read and laid on the table for future consideration; after which the grange adjourned for one week.

Sacramento Grange No. 12.

A Grange of the Patrons of Husbandry was organized at Pioneer Hall, in this city, on Saturday, May 17th, by W. H. Baxter, Grand State Deputy. There were twenty charter members present. The officers of the Grange are: Master, W. S. Manlove; Overseer, I. N. Hoag; Lecturer. E. F. Aiken; Chaplain, Robert Williamson; Steward, James Holland; Gatekeeper, R. S. Lockett; Assistant Steward, George Rich; Secretary, William H. Haynie; Treasurer, A. S. Greenlaw. Lady officers: Ceres, Mrs. W. S. Manlove; Pomona, Mrs. I. N. Hoag; Flora, Mrs. E. F. Aiken; Stewardess, Mrs. James Holland.

The Grange holds its next meeting at Pioneer Hall on next Saturday at 10 o'clock A. M. Applications for membership may be made to any one of the officers above named, accompanied by the initiation fee of five dollars for males and two dollars for females. None are eligible to membership unless they are practical farmers, or whose chief pecuniary interest is that of agriculture, and the wives, and sons and daughters of such, respectively over the ages of 18 and 16 years. All applications for membership are reported to the Grange in session, and are required to lay over one week, and then to be balloted upon. A large number of applications are already on the list.—*Record.*

San Gabriel Farmers' Club.

The Farmers' Club of San Gabriel Valley met on Saturday, May 3d, in El Monte. The culture of flaxseed in this county was discussed, and laid over for future consideration. Reports were read from the Committees on Semi-Tropical Fruits and Bee Culture. Progress was reported in the matter of obtaining a reduction in the price of weighing hay, etc. A resolution against the taxation of growing crops was adopted; also, a resolution that a Los Angeles County Farmers' Union is desirable. A number of questions were proposed for consideration, and referred to the appropriate Committees; after which the Club adjourned till Saturday, June 7th.—*Express.*

Important to Farmers.—On last Saturday Mr. Addo Borchers, of Tangent, had on exhibition in this city a newly-invented clod grinder which attracted a constant crowd about it during the day. It is made wholly of iron—the ribs or runners upon which the machine travels, being cast, and, the rods which form the screen through which the clods are ground are of wrought iron or steel. The specimen on exhibition is 4½ feet long by 5 feet wide, and, drawn by a light span of horses, is capable of working up thirty acres of the most stubborn clods per day. By this process the clods are not pressed into the earth, as with many other machines, but are stired up and completely pulverized in passing through the intricate wires of the "grinder." The machine has been fully tested by Messrs. Martin Luper, Philip Low, and several other scientific farmers of Linn, and all speak in the highest praise of its utility. Mr. Borchers has filed his caveat and applied for a patent upon the machine.—*Albany Democrat, Oregone.*

Agricultural Notes.

ALPINE.

Alpine Miner, May 10: The weather has become more summerlike, and tillers of the soil are hopeful that they may soon venture to plant in the open air. For one, we have flowering plants, annuals enough to stock a large garden, which have been growing ever since early in March; and having been obliged to pot them out several times to give them room, not daring to venture them outdoors, until our office is nearly full and many showing signs of bloom, we would be glad to know to a certainty that the frost king had retired to his hyperborean home permanently for the season. It is presumable that farmers and gardeners throughout Alpine unite with us in this desire.

AMADOR.

Dispatch, May 17: Rain.—We had quite a shower of rain, accompanied with unusually cold weather, last Wednesday. We fear, however, it is too late to be of much benefit to the grain crops.

Ledger, May 17: Haying.—Many of our farmers who had fine prosperous fields of grain six weeks ago, are now cutting the same for hay. Much of the grain grew well and gave much promise of turning out abundantly, but the lack of a few showers of rain has stunted them to such an extent that they are now being cut for hay. The lack of rain will be of great damage to the farmer generally and the grain market will be materially affected. Two months since our agriculturalists were in high spirits at the flattering prospects of a bountiful harvest, but now the scene changes to that of disappointment.

ALAMEDA.

Transcript, May 15: Floricultural.—A German horticulturalist and floriculturist recently arrived from the "faderland," visited yesterday the private garden, conservatory and nursery of Robert Swarbick near the corner of Washington and Third streets. He expressed himself perfectly astonished at the beauty and variety of flowers exhibited to his admiring gaze. The calceoania are the finest in the State, and there is nothing to equal them in the State horticultural display in San Francisco. The fuchias are also numerous and beautiful. He has thirteen varieties of seedling geraniums and delicate cocom-shapen flower called the "Fisherman's Basket," which closes the lid at sunset. A huge red flower known as the "Dracenœ, and a pale yellow rose termed the "Devoniensis" attract much attention- The floriculturist savan waxed eloquent over the vegetable productions of this State, and says that in no part of the Eastern Hemisphere do flowers attain the size or have the delicate tints which characterize those seen by him in this city.

CONTRA COSTA.

Gazette, May 17: Weather and Crops.—Though the small measure of rain which has fallen during the season and the total failure of the usual later rains, together with some warm, and much drying and windy weather, left us, a month ago with anything but encouraging crop prospects; they have greatly improved with the cool weather enjoyed since that date, though we have had no rain except a little dash on Wednesday afternoon of this week, which was not sufficient to moisten the road dust, and did not equal the dews which have blessed the vegetation several nights during the week past.

With a continuance of this weather for another month we might calculate on fair average crops through this portion of the county, and we hear that the favorable weather has given the San Joaquin portion of the country a much more promising aspect than it bore a few weeks since. A turn of warm weather and northerly wind, of which there are some indications as we write, on Friday, would blight the promise the cool weather has brought us, and though we might still hope for a partial crop, it could hardly reach half an average one in the best districts of the county.

Last year, with only a few warm days about the first of May, we had almost uninterrupted cool weather for six weeks up to the middle of June, and a half inch of rain fell on the last day of May that brought the measure of the season close up to twenty-nine inches; this year our total measure is hardly more than twelve inches, of which not more than three-quarters of an inch has come to us since the close of February. The next few weeks is therefore the critical time for our crops, and even a few days of hot north wind may settle their fate; but we hope to escape such a visitation, and that our husbandmen will be rewarded for their seed, time and labors, by a fair harvest.

Ledger, May 17: More Grain.—The *Ledger* office has been obliged to secure additional room in which to store the numerous samples of wheat and barley daily brought in for inspection. If that received is a fair sample of the plains the yield will be enormous, but it is human to clip the tallest bunches for exhibition. Hence, we take all statements that "this is a fair sample," *cum grano salis*. D. K. Benedict sends us samples of grain, wheat and barley, which is really fine, heavy straw, long heads and well filled. There is no doubt that the recent cool weather and dewy nights have materially bettered the condition of grain in this vicinity, and although we cannot look for anything like a good yield, still the bottom lands will return sufficient to inspire courage to try again.

Excellent Barley.—Thomas Holstead brought to our office, one day last week, a sample of the crop of barley on one hundred and thirty acres of land about seven miles from Antioch, on the Iron House Landing road. The sample shown us, was about five feet in hight, finely headed, and Mr. Holstead informs us that it is a fair sample of the entire field. It is needless to add that the land was thoroughly plowed.

COLUSA.

Sun, May 17: Crops.—Notwithstanding the eight days of North wind, and the fact that we have had no rain, crops look better than they did three weeks ago. It is now said by competent judges that there will be almost as much wheat raised in the county this year as last. Many fields of grain are dead, and quite a number of farmers will lose all they have. Nearly all the summer-fallowed land will make grain, and all the land that was flooded, even last year, will make very good crops. Deep plowing, summer fallowing and irrigation, will insure us the best agricultural county on the face of the earth.

Messenger, May 17: This part of California perhaps, never enjoyed a more propitious winter for grain sowing, than last winter was, and the farmers made good use of it. There was more grain sown in this county than any previous season, and, six weeks ago, never were the prospects of a bountiful harvest more flattering; the early grain was growing nicely, and the spring sowing was high enough to partially hide the ground, but, "Alas fond man when he thinks his honors are ripening upon him, there comes a frost, a killing frost, and nips him in the bud!"

We have had no rain to amount to anything since the 6th of March, and all the late grain is dead or dying, and the early grain will be light, we have had six days north wind during the last seven days, and if it continues for six days longer, all the grain will be dead. I guess the drouth is pretty general all over the valley. The farmers are talking of hiring a lot of shoulder-strikers to "put heads on their wheat."

LAKE.

Bee, May 17th: Crops.—Coming from Cloverdale this week, we observed that the growing crops all along the road in this connty, from Lee's station to Lakeport, look to be in a remarkably good condition. Mr. Lee informed us that the crops in Lake county are all right, and that there will be a full yield, especially on low bottom lands.

MARIN.

County Journal, May 15: The Grain Crop.—The inquiry comes up from every quarter. What will be the comparative yield of grain this season? The winter months were full of extraordinary promise, but the spring has broken it, and it is probable the crop throughout the State will be less than the average. This is not the case in Marin county. Our county makes but little account of its grain, the township of Tomales being its principal grainery. That township lies on the coast, is visited by the diurnal fogs from the sea, and is little affected by the amount of rain that falls. Too great a rainfall will do harm, but too little is scarcely thought of.

Mr. Vanderbilt the County Assessor, who lives in Tomales, says the yield this season will be a hundred per cent. greater than that of last year, and fully equal to the showing of two years ago. We are told that the grain will be fully average in Novata, and Nicisio, that on the lowlands being quite heavy. Messrs. Sweetser & DeLong's fields are instanced as good. Mr. Dickson says the hay crop in his part of this township will be good, and he will have considerable hay to sell. The *Argus*, *Democrat* and *Flag* speak favorably of the coming harvest in Souoma county.

MERCED.

Tribune, May 17: The Weather--Crops.—The past week has been very cool, accompanied by heavy north winds. There is some indications of rain at present, which, although it might be some damage to the hay now cut, would be of considerable benefit to the grain. From parties just from the west side of the San Joaquin river we learn that with the exception of what little grain has been irrigated, the crops will not amount to anything. Iu this vicinity there has not been much change either one way or the other, since our report of last week.

W. F. C. of Merced County writes to the Rural Press, under date of May 17th as follows: Crops look well in our settlements, under the San Joaquin Canal. Parties are almost daily visiting our section to see the benefits of irrigating. I learn from good authority that the Gov. will visit our neighborhood (Los Bañtos) in a few days. Fruit trees look well; alfalfa splendid; second crop ready for the mower; vegetables plenty, etc.

MONTEREY.

Democrat, May 17: The Crops—From all parts of this valley we hear favorable reports of the growing crops. There are tracts which were seeded after the rains had ceased upon which the grain barely sprouted, and from them nothing is to be expected. Fogs and mists, together with a cool temperature have favored greatly all the grain that was up early enough. Where summer crops are grown habitually, the ground is moist and in fine condition. Salinas Valley has no reason to grumble at its luck this season. Accounts from the Hollister country are cheerful. In Pajaro farmers are relying mainly upon summer crops, potatoes, beans, corn, etc.

Cholame Valley.—A correspondent, writing from Cholame Valley, on the 7th inst. reports no rain in that quarter for two months—as a consequeuce, the country is dry, very dry. The stock still looks fat enough, but that their owners, anticipating scant feed, are putting in market all they can as fast as possible. Sheep shearring is over and the sheep men onght to be cheerful. Their faces, however, are rather long, because of the present low rates of wool. Like Mark Tapley, our correspondent and his friends, notwithstanding the rather depressing aspects of business matters, manage to be jolly. He reports a merry making at San Miguel, which J. Morgan was host and conductor and participating therein, with the music, the bountiful supper and the "beautiful" ladies present, got quite enthused. The day thereafter he travelled homewards in company with a gentleman from San Francisco and another from Hollister, whose business was the inspection of a stone coal mine, the property of Stone, Spencer & Co.

NAPA.

Reporter, May 17: Maccaroni Wheat—At J. A. McClelland's is to be seen a sample of bearded wheat from the ranch of Jas. McKay, of Carneros. The stalks are five feet and a half high, and it proves conclusively that there is little fear of short crops in that portiou of Napa county.

Suscol.—The wheat, barley and hay in this section never presented a more favorable prospect for good crops than it does the present season, and this prospect extends even to Vallejo. The farmers on the Suscol hills and all about there are happy in the assurance of the good time coming.

PLACER.

Herald, May 17: Placer Oranges.—George Crissman, of the Temple Saloon, showed us this week a branch of an orange tree, growing at the residence ot Mr. Barkhaus, near Gold Hill, that was full of beautiful, fragrant blossoms. Mr. Crissman informs us that the tree is a very large and vigorous grower, some sixteen years old; Mr. Barkhaus having several of the same age, all doing well. This tree bore, for the first time, last year several dozen finely flavored oranges, and from its prolific blossoms, bids fair to yield bushels this season.

George says he would give a cool hundred dollars to have the tree in his lot in Auburn. Mr. Barkhaus is in a warm valley, about 800 feet below Auburn, and eight miles west of here, and if he had planted a hundred seeds when he put in these five or six, he would now have a fortune. Oranges do grow, thrive and bear out of doors here in Auburn, as proved by M. Andrews, who has them bearing on an exposed hill in town. We have before said that all the warm, granite valleys south and west of here in this county are as well adapted to the orauge as any portion of Los Angeles county, and it is now demonstrated.

SACRAMENTO.

Folsom Telegraph, May 17: Wine Shipped.—Henry Mette, of Red Bank Vineyard, near Folsom, has shipped to St. Louis, during the past week, via C. P. R. R., forty barrels of California wine, about sixteen hundred gallons. A short time since he sent to the same destination fifty barrels of California brandy. He has just completed a new stone wine cellar, eighty feet in length, by twenty-six in width. Mette's wine bears an excellent name, and meets with a ready sale in St. Louis.

SUTTER.

Banner, May 17: Rain.—A fine shower of rain of about an hour's duration, fell at this place Wednesday afternoon. Rain also fell at intervals during the night. What effect it will have upon the crops in this section will depend a good deal on the character of the wind for the next week. In many localities forward grain has been blown down, but on the whole we think the good done will overbalance the damage wrought.

Fine Wheat.—B. F. Frisbie, living on the plains a few miles west of this city, brought iu for onr inspection two stools of wheat on Monday, as average samples of 30 acres Club and 50 acres of Proper wheat, snmmer-fallow. The stalks average 4½ ft. in hight, heads large and full and grain in its milk.

SAN JOAQUIN.

Independent, May 14: Excellent Wheat.—W. C. Miller brought to this office yesterday a sample of the crop of wheat on four hundred acres of land about four miles from this city on the Sonora road. The Miller Bros., own about nine hundred acres in that locality, four hundred of which are now covered with as good a growth of wheat as is probably to be found in any part of the State. The sample shown us was about four feet in hight, finely headed, and Mr. M. informs us that on portions of the land the growth was considerably taller. No failure of crops on that land.

TUOLUMNE.

Independent, May 17: A slight shower of rain last Wednesday. In the mountains there was quite a large sprinkling of rain and hail, which will be very fine for the grass and crops in that section.

The Sonora *Independent* gives a flattering acconnt of the vine, and wine and brandy making in Tuolumne county. Both soil and climate are found fovorable to viniculture. It recommends the people of the county to go into the business ou a larger scale. In speaking of what has been accomplished by one firm, the Trask Brothers, it says:

They have secured the services of an experienced wine manufacturer from the East, and the object is to make up a company, to be called the "Columbia Vinicultural Association," for the manufacture of wines and brandies on a large scale. They expect to buy and work up some three hundred tons of grapes this fall, and will have casks and cellars prepared for storing the produce. They have already in operation the finest still outside of San Francisco, which runs by steam under sixty pouuds pressure, and from refuse grapes and wine are now producing a splendid article of brandy, all the fusel oil and bad ingredients being removed in the process of manufacture. Samples of their wine and brandy have been sent to New York and Chicago, and they are assured the brands will command the highest price in the Eastern markets.

VENTURA.

Signal, May 10: Fine Wheat.—Mr. Grimes brought down from the rancho Viejo, the other day, a specimen of the growing wheat of that section. It is nearly five feet in length, well headed, and gives promise of early and full maturity. Messrs Clark, Todd, Proctor and many others in this neighborhood all have very excellent prospects for a good wheat harvest. The same may be said, also, of the same region on the Ojai, where many thousands of bushels will be produced. Mr. Conoway, of the Sespe, says there are many fields in that vicinity that are equally promising.

YOLO.

Mail, May 15: Cool Weather.—The weather for the past week has been excellent for the growing crops, and many fields of wheat that were considered too far gone for grain have taken a fresh start and may yet produce a pretty fair yield. A little rain would still be welcome, and at this writing (Wednesday P. M.) the indications are favorable.

YUBA.

Appeal, May 15: Change of Weather.—Yesterday the weather was more like that nsually experienced ou the 21st of March than the 14th of May. It blew a gale in the morning, and several showers of rain fell in the afternoon and evening.

Fine Grain.—There may be seen at Bell & Garrett's store fine samples of Club and Proper wheat from the ranch of B. Frisbie, Sutter county. Mr. F. has fifty acres of the former and thirty of the latter, which promises to yield larger crops than last year.

Fine Samples of Wheat.--Frank Blue brought in yesterday from his ranch, near the Reform School, two fine samples of wheat of the Proper and White Chile varieties. The stock of the former are about fifty-five inches in length, and the latter fifty inches. The heads of both are of full usual length, and very closely filled. The White Chile was sown six weeks before the Proper, but it seems to be no more advanced. The samples were not culled from the field, but are fair averages of the crops. John Seaward, of Bear river, also brought in and left at Boon and Cummins' store, very fine bundles of wheat, which was well filled, with stocks five feet in hight.

Trout Killing on the Truckee.

Of the illegal slaughter of trout in the streams of Nevada county, the Sacramento *Bee* gives the following account:

The Indians and Chinamen stand on the banks and snake them out of the stream at the rate of five hundred to one thousand pounds per day. But how? By what they call "grab hooks." A grab hook is made of four hooks placed back to back on a piece of wood or iron, half an inch through, and say four inches long, and leaded so as to carry it into the water with dispatch.

The hooks, pointing in all directions, are fastened to an eight or ten foot line, and that to a strong pole. The grabber standing on the bank drops his bunch of hooks into the foaming water at the foot of the dam, where the trout is known to be in great quantities, and jerks and drops, and drops and jerks until he strikes a fish in the side, back, belly, gills, or auywhere, and out the fish has to come.

It is from this source that the California Truckee trout market is supplied. Look at the fish in the market and see the hole made by the grab-hook--or it may have been speared, for the Indians trail the rivers and cast the spear with great dexterity.

All this is against the law, bnt the District Attorny of Nevada county, whose business it is to prosecute, resides in Nevada City, as far from Truckee as he is from Sacramento, aud the result is that there is no one to enforce the law, and in consequence of his negligence, the best fish streams are being depopulated.

Sunday in the Mines.

There is a very large and fine painting by Charles Nahl now on exhibition in a window on Kearny street, in this city, representing a scene entitled "Sunday in the Mines." The accompanying illnstration was made from the original drawing from which the picture was taken. The scene is a familiar one to many of the early Californians, who were in the mining camps of "49" and "50," when gold was plenty, and as easily spent as it was earned. Mr. Nahl, who ranks among California's most noted artists, "knoweth whereof he paints," since he has handled a pick and shovel, rocked a cradle and fed a sluice in the red soil of California's golden hills. His portrayals of California mining life are remarkably truthful and natural in all their details. He seized every opportunity to perpetuate scenes with his pencil, that came under his observation; and the result is that he accumulated a vast number of sketches on these particular subjects, for which we would otherwise have had to rely upon our recollection. The figure on the extreme right and the tall man quietly smoking his pipe, as well as the central figure in front of the cabin, are not imaginary persons, but represent people well known in Grass Valley in early days. Mr. Nahl resided there and was personally acquainted with them.

The scene represents "Sunday in the mines." Picks, shovels, rockers and pans are idle, and it is a day of rest. The miners that have them, put on a "boiled shirt," a pair of clean overalls and perhaps black their boots. Some do their writing, some their washing, some mend their tools and cabins, while others give themselves up to horse-racing, gambling, getting drunk or whatever else can amuse their demoralized natures. The Sunday in the mines was not the Sunday of their boyhood by any means, but all enjoyed it in their peculiar manner. It was harvest times for the gamblers and thieves who crowded thickly in such places, and a day of peaceful rest for such as had the inclination to keep themselves apart from the more jovial. The scene is a good one and will be recognized as truthful by those who have ever witnessed similar ones.



SUNDAY IN THE MINES.

The action of the drunken individual with the bag of scattering dust, staking his pile on a horse race, and the character of the riotous group on the left, fighting over their cards, are portrayals of what is supposed, away from this coast, to constitute the prominent features of life in a mining camp. But the action of the several figures on the right during such scenes of excitement near by shows that not *all* of California's pioneers were drunkards, gamblers, jockeys, and murderers. The central figure in front of the cabin is reading his Bible to two eagerly listening and interested hearers; the young man in the cabin is writing words of encouragement and hope to those still under the paternal roof-tree or perchance to some waiting maiden, anxiously expectant of words from her roving lover. The individuals on the right are making a washday of Sunday, and one in scanty garments looks dolefully, but with a kind of mirth at the deplorable state of his nether-garments. In the back ground may be seen the hills and gulches whose hidden treasure has drawn this ill-assorted crowd together and in front are some broken miners' tools, the embers of a fire, cans, bottles and all the usual accompaniments of the front yard of a miners' cabin.

Such scenes as this may yet be seen in many camps on this coast; but money is not so plenty now-a-days as it was then, and many of the evil tendencies of our mining population are checked in consequence. Some men will if they have money, "waste their substance in riotious living" while if they are in moderate circumstances, they behave themselves like men. The majority of the mining towns of this coast are to-day "quartz camps," where the men work for wages and do not have the amount of money to squander that they did in days gone by, when placer claims were plenty. The parties owning the large hydraulic and gravel claims in this State at present, are, the greater majority of them, steady, hardworking men, who have learned by experience to hold on to what they get and not throw it away on the sharpers and blacklegs who infest every community where money is plenty. In "49," men who had plodded wearily on at small salaries in the Eastern States found themselves making more in one day than they accumulated in a year at their old occupations, and most of them made the mistake of supposing that that sort of thing was to last forever. As a consequence of this feeling they became possessed of the idea that they were all millionaires, that if they spent a fortune to-day, they could earn one to-morrow. Accordingly, money was literally thrown away on useless, expensive amusements, gambling, horse-racing, etc.

An excuse for this line of conduct is to be found in the fact that the round of amusements in "49" was then exceedingly limited. Female society, of the right sort, was not there to exercise its healthy influence for good on the community, and round off the rough corners in the characters of the miners. Men placed in the position which they were, suddenly raised from comparative poverty to affluence and even wealth, and at the same time released from the ties and conventionalities of cultivated society, and thrown in with others of lower moral qualifications, with the additional incentive that they were amenable to no laws for their actions, became, in a measure, rough, uncouth, careless, and extravagant.

This state of affairs, with its demoralizing influences, developed naturally the latent tendency of most men to live a fast life and spend their money freely. Others again, although they changed their mode of life, did not change their characters; and these men prospered. Unfortunately, by far the majority of the "'49-ers" now amongst us are men who have seen their best days, physically speaking, and whose purses bear no evidence of the sums they once contained.

Paradise Valley, Stanislaus County.

EDITORS RURAL PRESS:—Things look rather dry in this section of country, and "hope on, hope ever," is the only consolation of the farmer. Every man's desire for rain is equal to the need, of the bright and sparkling water. May 5th, I started the reaper in the hayfield, and concluded not to wait for rain any longer. The yield will be from ½ a ton to a ton per acre, but the hay will be of excellent quality, being a mixture of wild oats and barley. I think 10 days more without rain will "Cook the goose," as to anything of a wheat or barley crop in this valley. Although in a few localities there are spots that may reach 10 bushels per acre, I have a few acres of such, but as a general thing, if I get 5 or 6 bushels per acre it will be all I expect if it don't rain within 10 days, yet many ranches will not pay to run a header over at all, if the weather continues dry. I cannot see any benefit in harvesting a crop when there is nothing left over and above expenses.

A few Words on Poultry.

Last spring I started with a hundred hens, intending to raise chickens, and also sell eggs, and make the thing pay if possible; having plenty of good chicken feed I set out. The result is, the thing has not paid. Out of over 400 chickens hatched, considerably over 200 are now eat, having sold in the meantime eggs enough to pay about one-fourth of the cost of feed. Whole broods of chickens died, notwithstanding the precaution and advice practically applicable as gleaned from the poultry department in the RURAL PRESS. Now Mr. Editor I have come to the conclusion, that the cholera done the business. What is your opinion, and what is your remedy for the disease if it was cholera. A great deal is said about improving poultry, I have tried it on a small scale but the result has not proved satisfactory. I bought a pure blood dark Bramah pullet last fall, and paid $6 for it, I have kept it in good quarters with a one-half Poland rooster a fine bird, the result is 16 eggs, out of which, I obtained 12 chicks rather diminutive and inferior looking. I will report the final result some future time. The hen is now one year old and has never laid but 16 eggs, and no prospect of any more. I should be happy to hear through the RURAL PRESS from others on the poultry business. OCCASIONAL.

As a preventive of chicken cholera, keep their roosting places particularly dry and clean; even the ground of their roosting places should be swept clean at least once a week and sprinkled with ashes or slacked lime. As a cure for cholera, mix their ground food with strong alum water, or if feeding grits, or cracked grain, soak the same in alum water for 12 hours, and give a full feed every other day.

Another good remedy is, an ounce of bi-sulphate of soda—to be had at any drug store—to one gallon of water and set it where the chickens can drink all they will of it.

Bamboo and Persimmon.

In the RURAL PRESS of May 3d under the above head there is this:

"There is a large tree (persimmon) growing on the old Briggs ranch, but it has never borne fruit, though covered with blossoms every year."

That is not at all surprising. Old bachelors, as a general thing, are as unproductive as that lonely, isolated persimmon tree, and for a very similar reason.

If the owner of the Briggs ranch will supply that tree with a proper mate, she (the mate) will bear him an abundance of fruit, which, if eaten before fully matured, will enable him to whistle whithout an effort. All he will have to do will be to work the bellows, and the music will come. PUCKER.

Milpitas, May 5th, 1878.

Useful Information.

The Use of Spectacles.

Eyes are not uniform in shape or size. Wonderful in their mechanism and for the purposes for which they are intended, yet they are so often imperfect as to demand both care and assistance.

As there are long, short, lean and fat persons, so there are flat, round, small and large eyes, and each eye as natural to its possessor as his size or weight is to an individual. With a knowledge of these facts, Ophthalmologists have arbitrarily created a standard, or model eye, based upon its power of refraction.

Eyes in a passive state have a common refractive power relative to the individual; and they also have; more or less, a faculty of increasing the common refraction and restoring the eye again to its passive condition.

The measure of perfection in the eyes is their capacity to focus upon the retina, parallel rays. (All rays coming from objects fifteen feet or more distant from the eye, and which enter the pupil, are practically parallel.) All other things being equal, objects at fifteen feet or more distant from the eye, if seen at an angle of five minutes, are distinctly seen without blur, sharp in outline, clearly defined on their borders, by the emmetropic eye in its passive condition.

If objects are nearer than fifteen feet to the eye, their reflected rays are so divergent that the perfect eye cannot focus the rays upon the retina, and the faculty of increasing the refractive power of the eye is brought into requisition. This faculty is called the accommodation of the eye. The nearer an object is to the eye, the more will the entering rays diverge, and of course the greater must be the tax upon the accommodation,

In the model, or perfect eye, this power is taxed to its utmost, and fails to serve us if the object is brought nearer than six or eight inches to the eye. If we persist and bring the object nearer than the accommodation permits, circles of dispersion form on the retina and vision is blurred.

There are several media in the eye through which light passes to the retina, and each medium has its own power of refraction, but the measure of the common refraction of the model eye is the mean of the sum of all the refractions.

The crystalline lens is one, and the most important, refractive medium. By a change in the shape of the lens the faculty of accomodation is manifested This is accomplished by a small muscle which surrounds its border and thickens it to increase its power to focus divergent rays.

The greater the divergence of rays which enter the eye, the more will they diffuse upon the retina and produce a blur, unless some means are provided to focus them. The lens does this, and the greater the divergence, the thicker must be the lens.

It is still an open question whether the little muscle (ciliary,) or the elasticity of the lens, or some other force, flattens the lens to fit it for parallel rays.

It is necessary for good vision, without artificial aid, to have all the conditions herein stated work harmoniously together and singly without fault—In truth, there are four conditions—the integrity of which is essential to insure perfect vision. For any and all the anomalies of these conditions, spectacles, if properly adapted to the need, become important and valuable servants.

First.—Objects must give sufficient light to produce an impression on the retina. Second.—The media through which light is transmitted, either in or out of the eye must be purely transparent. Third.—Both the refraction and accommodation of the eye must be without fault. Fourth.—The retina, to receive impressions, the optic nerve to transmit them, the brain to comprehend them, must one and all be healthy. —*W. W. Chandler, M. D.*

A New Use for Corn.—A friend, to his great chagrin, purchased a pair of boots that were decidedly too small to wear, without great suffering. He had soiled the soles so he could not exchange and could not get them to the shoemaker. He thought of trying a new power on them. He filled the feet and part of the legs with *dry corn*, filled up with water, let them remain till the corn swelled fully; then rubbed the leather with curriers "daubing," and they were ever afterward perfectly easy. Ordinary grafting wax, somewhat softened with lard, answers the same purpose. Here was the application of a very simple but efficient agent to stretching boots, and can be done at little cost and at home.

Yankee Implements for John Bull.—We have formerly alluded to the superiority of American agricultural tools to those which we saw in use and on sale in England. It is gratifying to learn that John Bull is beginning to open his eyes to the fact that Brother Jonathan is in advance of him in the manufacture of these and other implements. We see it stated that Philadelphia is sending hay-forks, dung-forks, and pitch-forks to Sheffield—which seems at first "very like" sending coals to Newcastle—while the Ames shovels from Massachusetts supply England and the rest of the world. Now that the tide has once turned, we may expect that the eastward current will soon become a strong one.

Land-Locked Salmon.

We find in a recent number of the *Concord Monitor* the following account of the successful breeding of land-locked salmon:

"Dr Fletcher planted some eggs of the land-locked salmon in a small spring, under the bluffs on the other side of the river, a few weeks since. Within the past week they have commenced to hatch. On Tuesday he removed 85 to another compartment of the spring, and to-day he removed 31 more, which he had hatched within twenty-four hours. They came into the world provisioned with a month's rations, in the shape of the yolk of the egg which is attached to them. They were not injured by their journey from the British Provinces."

The land-locked salmon, which are found, we believe, in only two or three rivers of the continent, have no equal as a game fish, except the great salmon. They are found in perfection in the Grand Lake Stream, which is a connecting link in the chain of lakes in which the St. Croix River rises. Their average weight is a little less than three pounds, and they give rare sport to the disciples of old Izaak Walton, who cares to go so far as the eastern boundary of Maine. If they can be domesticated in our rivers, as good authorities believe, it will give a new pleasure to many an honest angler.

Sending Live Fish by Mail.—Five living sea fish were recently sent by mail from Naples to London, the journey consuming a little over four days. The fish were each about two inches in length, and were packed in damp sea-weed, from which all but one came out in good condition, and, soon after being placed in their natural element, became as lively as ever.

A Tough Thing to Swallow.—Prof. Voght records an instance of what may be called self-cannibalism. He cut in two a male cricket, and immediately the fore part, probably experiencing a sensation of emptiness in the ventral region, turned upon the hinder part and devoured it!

Force Required to Burst a Barrel.—A well-made barrel with ¾ inch staves, and 1 to 1¼ inches heads, of 28 to 32 gallons capacity, will bear 12 to 15 pounds of steam pressure, and from 45 to 48 gallons capacity, from 10 to 12 pounds. Strength is given mainly by thickness of head, which generally bulges out. Hoops, if good, rarely burst.

Good Health.

Remedies for a Cold.

A distinguished physician across the Atlantic used to tell his class that there was no more certain remedy for a "cold in the head" than absolute abstinence, for from twenty-four to thirty-six hours, from every form of liquid, and if the suggestion be strictly followed it is good. We have tried it and know. But it requires some degree of moral courage. It is, however, well adapted to professional men who are liable to be called at even the most inconvenient times from a warm bed.

Another eminent physician, Dr. Dobell, says that colds can be stopped without lying in bed, staying at home, or in any way interfering with business—provided the treatment be begun directly the first signs of catarrh show themselves in the nose, eyes, throat, or chest. When the cold has become established it will not answer. The treatment is as follows: 1. Give five grains of sesqui carbonate of ammonia and five minims of liquor morphia in an ounce of almond emulsion every three hours. 2. At night give an ounce and a half of liquor ammonia acetatis in a tumbler of cold water, after the patient has got into bed and been covered up with several extra blankets; cold water to be drunk freely during the night should the patient be thirsty. 3. In the morning the extra blankets should be removed so as to allow the skin to cool down before getting up. 4. Let him get up as usual and take his usual diet, but continue the ammonia and morphia mixture every four hours. 5. At bedtime the second night give a colocynth pill. No more than twelve doses of the mixture from first to last need be taken, as a rule; but should the catarrh seem disposed to come back after leaving off the medicine for a day, another six doses may be taken and another pill. During the treatment the patient should live a little better than usual, and on leaving it off should take an extra glass of wine for a day or two.

Small Doses.—French medical journals publish the result of experiments to determine how minute a dose of poison will produce decided medicinal effects. The blood of an ox which had been dead ten days was used in the test. Having inoculated a rabbit with this blood poison, the doctor took the blood of that rabbit, and so on to the 25th generation that had died. The result proved that the one-trillionth part of a drop of decayed blood injected subdermally, sufficed to poison a rabbit. From this proving, dissecting surgeons are cautioned that, though the dissecting knife may be clean to the eye, it may yet hold an invisible atom of death poison, sufficient to infect the circulation if the operator should by accident prick his finger.

A French savant says that such results ought to open our eyes to the possible effects of minute doses in homœopathy.

Ingrowing Toe-Nails.

A correspondent of the *British Medical Journal* takes the ground that no cutting operation is at all necessary for the complete and rapid cure of ingrowning toe-nails. If a small, thin, flat piece of silver plate be bent at one edge into a slight deep groove, and, after the toe has been poulticed twenty-four hours, slip beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed round the toe, a speedy and almost painless cure will take place; and the patient, after the first day, has the additional advantage of being able to walk. This method has been followed in numerous cases with uniform success.

Dr. Blower, of Liverpool, states, in the same journal, that he has, for the past twenty years, employed compressed sponge successfully in the treatment of ingrowing nails. He renders the sponge compact by wetting and then tying it tightly, until it is thoroughly dry. A bit of the sponge, in size less than a grain of rice, is placed under the nail, and secured by strips of adhesive plaster. In this way, the point of the nail is kept up from the toe until the surrounding soft parts are restored to their normal condition by appropriate means.

Curing Discharge from the Ears.—As the cause of such trouble is always constitutional, local applications are of no benefit, and besides may be dangerous for the delicate organs of hearing. Many a patient has become deaf by a treatment which was recommended with the best intentions. The causes may be manifold, a hereditary taint, want of exercise in the open fresh air, sleeping in an ill-ventilated bedroom, improper food, injudicious diet, use of stimulants, indulgence in exhausting passions, vicious habits, etc. It must not be lost sight of that conditions differ, and that what will not harm one man except in later life, will at once affect others. The cure is evident; take out-of-door exercise, sleep with your windows open, only take care not to catch cold in a draft, watch your digestion, and eat only what agrees with you, but indulge in variety of food use no tobacco or liquor of any kind, but if necessary some mild cathartic, and add to this the daily use of some blood purifying decoction of sarsaparilla, sassafras, or its equivalent, and —marry, if you have no wife. Remember that married men are in general healthier and live longer than bachelors. Life insurance companies understand this.—*Manufacturer.*

Phenomena of the Brain.—One of the most inconceivable things in the nature of the brain is that although the organ of sensation, it should itself be insensible. To cut the brain gives no pain; yet in the brain resides the power of feeling pain in any part of the body. If the nerve which leads to it from the injured part be divided, we become instantly unconscious of suffering. It is only by communication with the brain that any kind of sensation is produced; yet the organ is itself insensible. But there is a circumstance more wonderful still. A certain portion of the brain itself may be removed without destroying life. The animal lives and performs all those functions which are necessary to simple vitality, but it has no longer a mind. It cannot think or feel. It requires that the food should be pushed into its stomach; once there it is digested, and the animal will even thrive and grow fat. We infer, therefore, that a part of the brain is simply intended for the exercise of the intellectual faculties, whether of the lower degree, called instinct, or of that exalted kind bestowed on man, called reason.

How to Keep Teeth in Good Condition.—After each meal use soft, wooden tooth-picks, working the tips into fine brushes—then rinse the mouth with water. All that is required to preserve and beautify the teeth, is *simple cleanliness.*

Ordinary tooth-brushes do not reach the interstices and cavities thoroughly; and, besides, irritate and loosen the gums. Tooth-powder (of every kind without exception) is more or less injurious to the enamel.

The plan recommended is in vogue among the Arabs and Hindoos, both races being celebrated for their splendid teeth (in spite of their odious fashion of tinting them). A friend who has followed this course for two years speaks very highly of it.

Vital Statistics.—Items of vital statistics recently published in Europe go to confirm the received opinion that the duration of human life is longer than in past centuries. In the city of Geneva, Switzerland, registers have been kept of the yearly average of human life since 1590. In that year it was twenty-two years and six months. At present it is over forty years. The tables compiled by life assurance companies in England, and adopted in this country, show a similar result. In the fourteenth century the average annual mortality in the city of Paris was one in sixteen. It is now about one in thirty-two. In all England in 1690 the rate of mortality was one in thirty-three. Now it is about one in forty-two.

Freckles.—The *Druggist Circular* says:—"For the benefit of young persons afflicted with freckles, we would inform them that powdered nitre, moistened with water, applied to the face night and morning, will soon remove all traces of them.

Domestic Economy.

How to Make a Coat.

A lady correspondent of the *Rural New Yorker* gives suggestions that may be useful to our readers remote from tailors or tailoresses, or who from motives of economy desire to do what this lady did. She says:

Having recently cut and made an overcoat, I thought how many women would like to learn how to make this garment, as the tailoress does not go around sewing in families as she formerly did. How many boys in stormy weather might learn to make their own clothes on a sewing machine, if they had printed directions in their weekly paper for doing this. We cannot prize those papers too highly that teach us how to do needful work, that all may know how to obtain an honest living, and be useful instead of idle.

Having cut the coat, commence and sew up all the seams except those that join the fronts to the back, and press them. Fit the openings in the canvas to those in the outside; then close the openings with an overstitch over a strip of linen an inch in width; then prepare a double strip of linen, an inch in width, and fasten it to the canvas under the thread-marks for the buttons, with a semi cross stitch; then carefully overstitch the canvas to the lappel on the body of the coat; then dampen and press and baste the whole canvas to the outside, so as not to cramp it. Then mark and cut the pocket-hole, and insert the pockets, with another coat before you as a guide, then sew the seam in the back of the lining, baste the wadding on the wrong side, and some thin cloth over the wadding to come next to the outside of the coat; quilt this lining according to your fancy, and baste the outside to it. In basting, lay down the lining and place the outside over it so as not to get the lining too close fitting for the outside. Baste the wadding to the front lining with thin cloth between them and the outside, and quilt. Then sew up the seams in the outside that join the fronts to the back and press them; then sew these seams and the lining together, having the front of the lining come under the facings smoothly; baste and sew down the facing, then join the shoulder seams; press and face the inside seams one upon another. Face the sleeves at the hand and sew them in; have the outside or only seam half-way between the seams of the back, and the fullness begin two inches in front of the shoulder seam, and continue to within three inches of the middle of the sleeve; then press this seam on the round end of the press-board; then press the canvas if necessary, and baste with small stitches to the seam of the coat and hem the sleeve-lining to it; then hem the linings on the hand-facings; then baste the stiffening to the lower side of the collar; stitch the lower part in straight lines; then over-stitch on the canvas side the part that turns over; then press and break the collar to its proper shape; then over-baste the cover to the break; baste all aronnd, turn in and hem the collar to it; sew the underside of the collar to the outside of the coat; press, fasten the lining to it, and hem down the cover; stitch around the coat and cut the button-holes, and work them over a cord of linen thread, four double; press and sew on the buttons and a loop at the back on the inside, and hang it up.

To Make a Fish Omlette.—There is two ways of making these; one is merely to flake some ready-cooked fish—cold salt cod is very suitable—season it with cayenne, nutmeg, and white pepper; mix it well with six beaten eggs and one dessert spoonful of cream or milk; fry it on one side only, fold it, and serve. The other method of making an omlette is as follows: Chop up what cold fish you have, add a little parsley and shallot shred small, and a piece of fresh butter and some lemon juice. Place this in an oven to get hot; then beat six eggs, season them, and pour them into a buttered frying pan; put it over the fire, and as the eggs begin to turn opaque, lay the warm fish in the middle of them; roll in the ends of the omlette so as to enclose the contents, and capsize it upon a dish. Garnish with crisped parsley.—*Ohio Journal.*

To Polish Tins.—First rub your tins with a damp cloth; then take dry flour and rub it on with your hands; afterwards take an old newspaper and rub the flour off, and the tins will shine as well as if half an hour had been spent rubbing them with brick dust or powder, which spoils the hands.

A Brick Cleaning Machine.—The immense amount of labor required to clean by hand the brick after the great fires at Chicago and Boston, have set inventors to work to devise some means by which such labor may be more cheaply accomplished by machinery. It is now said that a device has at last been invented that will do that work, and that one of the machines has been built and set to work in Boston. The bricks are cleaned at the rate of 35 to 40 a minute, one man being required to feed the machine. The work is also said to be done better and with less injury to the bricks than when it is done by hand work.

Nickel is to come into general use as a facing for printing type. It is much cheaper and much harder than copper, and makes a better surface every way. The application is one of the discoveries of 1872.

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SAN FRANCISCO:

Saturday, May 24, 1873.

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THINK TWICE before you stop your paper, because just now your funds are low. If you stop a valuable paper will you not cut yourself (and may be others too) down in that which will be the most irreparable, that which will lessen you in the very highest qualities of your possessions; that which would give you greater power for accumulating for yourself and for usefulness to others? Had you not better dispense with some expenses that contribute merely to your lower wants; that will merely curtail your pecuniary possessions; something that can be made up to you again by good fortune in any future day? Remember that a good newspaper helps *you* grow as well as your crops. You cannot make up lost time on live newspaper reading. Can you apply the sunshine of yesterday to the growth of to-day or to-morrow?

SANITARY PROJECT.—We have received the articles of incorporation and by-laws of the Southern California, Sanitary Hotel and Industrial College Association, established in Los Angeles County, California, May 8th, 1873. The object of the Association is unquestionably a laudable one, and we wish it the fullest success.

TOO LATE FOR THIS WEEK.—Our forms are locked up ready for the press on Wednesday evening, so that only such communications as reach us early on Wednesday morning and are short, can possibly appear till the following week.

ON FILE.—Immunity from Frost; Spring Valley; Black River, W. T.; Currency Question; A Question for Potato Growers; Vacaville Grange; The Crazy Disease; and About Gophers.

Floral Exhibition of the Bay District Horticultural Society.

This delightful and beautiful display of the floral wealth of California has been opened to the public up to the time of issuing this No. of the PRESS, twelve days, the managers having decided to continue the exhibition longer than at first intended. The attendance during the time has not been as large as we could wish, nor such as the true merits of this magnificent and interesting assemblage of flowers and plants has fully entitled it to. Most of the articles exhibited were of the choicest kind, their selection and arangement tasteful and judicious, and their cultivation and growth highly praiseworthy. Upon the whole the effect on entering from the street, and in the tour of the hall, was quite enchanting, and universally so acknowledged. The weather, especially in the evenings, has been, from its coldness, more favorable for the preservation of these choice productions of nature, inside the building, than quite tempting enough outside for the inducement of many visitors to leave their comfortable domiciles. This will account, in some measure we think, for the crowd not being so great as it otherwise would have been.

We hope that we may not have to say that the attraction of these earth's beauties, so beneficiently provided by Heavenly Hands, together with the fine music, was not sufficient for the fashionables of our city. We would rather prefer attributing the want of as large a number in attendance as the exhibition merited, to the weather, than to fashion's lack of taste!

Great taste was certainly shown by the florists and managers in decorations. The ceiling was gracefully draped with flags and streamers, festoons of evergreens and flowers were elegantly arranged in front of the galleries and in other parts; marble and bronze statues had well chosen positions on the floors; many fountains were kept in constant refreshing play; and hanging baskets filled with suitable plants were suspended from the galleries' arches; with a fountain of roses and many other beautiful adornments.

The sides of the galleries had a brilliant appearance at night when the rows of colored lamps were illuminated. The various groups, beds and pyramids, of choicest flowers dazzling in their different colored blooms, variegated foliage plants, exquisite ferns, and all the other gems and treasures of the garden and conservatory, produced the finest effects. Around the galleries were placed birdcages with their inmates trilling their silvery notes.

Messrs. Miller and Sievers, and Mr. R. B. Woodward, displayed the finest and newest collections of ferns on this Coast. Ludeman & Co., besides a fine show of Coleus or foliaged plants, exhibited window and hanging plants, choice green-house flowering plants, Australian and other native and foreign evergreens, and conifera, also some very fine seedling pansies. Mr. E. L. Reimer had a rich collection of many kinds of plants in fine and healthy flowering condition with a good assortment of evergreens. Mr. Meyer a long distinguished nurseryman and florist of our city, rejoiced in a display of the usual highly esteemed flowering plants, with many new ones, in several prominent and artistic positions, and worthy of his well-known abilities, judgment and energy in his business Mr. Woodward shone foremost in a central stand of large and rich tropical plants. Messrs. Miller and Sievers, in their extensive but comparatively rather new nurseries and green-houses, are fast advancing in their cultivation and propagation of all stock that is desirable for the market and the public requirements, and were well represented by the usual floral favorites, as well as by many new plants and seedlings—especially in the latter, as to that much esteemed flower—the auricula.

We should have very much liked to have seen more exhibitors from other parts of California—at any rate near the city—than San Francisco almost alone. Oakland and Alameda, Brooklyn, etc., should have been represented greatly more largely than they were. As it was, the exhibitors, unfortunately, were not numerous, (nor did all the city florists join in it, we are sorry to say), as may be observed from the following list of the principals: Miller and Sievers, 27 entries; C. Stephens, J. Williams, E. A. Upton, E. L. Reimer, 16 entries; C. D. Alden, Ludeman & Co., 31 entries; E Meyer, 24 entries; R. B. Woodward, Dr. Steivers, Mrs. C. D. Alden, Miss Emma Herold, Mrs. A. Gettz Lucas, and Mrs. A. O. Cook and a few others.

One of the most valuable and interesting features of the exhibition was the bestowal of flowering and other plants to children for them to take home and tend. This cannot fail to cultivate in them a taste and love of flowers, so refining and beneficial to their minds. There are many things that give pleasure to age, but impart no enjoyment to youth; and others which afford gratification to the young, which the aged cannot share. The rich can procure pleasures which the poor cannot obtain; and the poor enjoy advantages that the rich cannot purchase; but some things appear equally to delight the old and young, the rich and the poor, and among those may be mentioned flowers. Yes, whether flowers flourish in the garden, or bloom in the green-house, whether they are scattered in our pathway, sprinkled on the verdant banks, or widely strewn over the mountains, the cañons, and the valleys, they never fail to please; they impregnate the air with their sweetness, and delight the eye with their exquisite beauty. The children who receive these flower gifts from the Society, when they smell them, gather them and gaze on them, will feel grateful for the pleasure they have afforded them, and may be, through their influence led away, in after life, from the coarser and more sensual pleasures, to the purer and more spiritualizing ones.

Were the flowers of the world to be taken away, they would leave a blank in the creation. Imagination cannot suggest a substitute for them. Let us be grateful for the gift of flowers.

Look at the stateliest room in the stateliest mansion in our city, see it decorated with carvings and gildings, with paintings, sculpture, with China vases, ornaments and costly furniture and drapery; fair though they be, the flowers in the light wicker basket, on the stand, are fairer still.

> Though all around be rich and rare,
> The flowers are fairest of the fair;
> And, voiceless as they are, impart
> Sweet music to the eye and heart.

Dr. Steivers exhibited on one side of the Hall a most curious, beautiful, and interesting collection of the hard and ornamental woods of the Pacific Coast. These specimens were collected, prepared and arranged by the Dr. with much industry, care and neatness. These woods were from Central America and Mexico. At a future time he intends collecting and describing the hard and ornamental woods of the northern portion of the timber belt, reaching from Mexico, through California, Oregon, Washington Territory, British Columbia and Alaska.

Among the later exhibitors were Mrs. Demorest, who added to the general collections, cactus plants, one of them a splendid Alata, gorgeously displaying 104 blossoms; Miss Ella Hill and Miss. Knowles. Fine assortments of cut roses, pinks, pansies and fuchsias occupied a long table beneath the galleries.

At the beginning of this week most of the flowers and plants were renewed; some new arrangements made, the weather was a little more mild and prosperous and the company rather larger than the first 9 days of the Fair.

Some of the newest and rarest plants shown were, Bigonia Boliviensis, Dracæna marginata, Tetrathera verticillata, Saralia pinnata, Pereskia aculiata, Fuchsia microphylla fol. var., Myosotis, Empress Elizabeth, (new Forget me not), Dracæna speciosa, Columa Spediana, Dioscora discolor, Cissus quinquefolia, Croton disarta, Monestera, Torrenza Asiatica, Eranthemum tuberculatum.

To Our Contributors.

We would like to take our numerous contributors each by the hand, and whilst giving them a hearty shake, express our thanks for their many, varied and interesting communications, enabling us to lay before our numerous readers in all parts of the civilized world, a fund of useful information, spiced with results of experiments and practice in and under our own peculiar conditions of soils and climates.

We have a large Eastern circulation which is all the time increasing, and it is to your contributions that very many of our foreign readers look for reliable and interesting information regarding the results of your efforts in your own particular line or branch of agriculture in California. No intelligent reader of an agricultural journal wants to see all its articles editorials; for however well informed the conductor of a paper may be, upon the general condition and progress of agriculture around him, he does not and cannot from his very position get the personal experience that the practical farmer or horticulturist does.

And then, many men like to hear of the personal practice of those in the same profession as themselves from their own lips, better than any one else; and it is through these direct communications that they get that experience and practice in language that exactly suits them. We have now a list of quite regular contributors of whom we are justly proud; but for the good that might result to the readers of the RURAL, and the advancement of the interests of California generally, we would gladly welcome a few or even many more to our list.

RHUBARB WINE.—We have received from a correspondent a recipe for making the so-called rhubarb wine; but as we neither approve of its manufacture or recommend its use upon purely sanitary grounds, believing it to be unwholesome, we respectfully decline its publication unless specially called for.

Edgings to Walks.

An edging of some description is as necessary to a walk as a frame is to a picture; fortunately, also, there is a greater variety of materials suitable for edgings than for walks,—the latter depending so much on the local productions of the place; whereas edgings are often formed of living plants, which vary considerable in appearance and effect. A few of the most common in use may be mentioned here, as well as some other things in use in like manner.

Box edging, well adapted to some soils and climates, will not answer well in California, on account of the drought in summer.

Gentianella, next to box, (where the latter thrives well,) is generally much esteemed, particularly for its bright blue flowers. This also likes rather a moist soil, and frequent rains, and will not answer well here, although it will do better in our climate than the dwarf box.

Double Daisies make a neat edging, but do not bloom very long, and they cause some trouble to keep them within bounds.

Lemon and common thyme are also occasionally used for edgings, but they are only fit for wide walks, and in places where nicety of outline is not regarded.

Turf is, perhaps, one of the most useful of all edgings. But its breadth should not be less than about 15 inches in our dry climate. But a wide margin of turf of blue grass, is perhaps, the prettiest and most useful of all edgings in good aized gardens and wide walks; it is durable if dressed often with rotten manure, and well watered.

Several other herbaceous plants are used as edgings at times, as pinks, primulas, primroses, polyanthus and others, as well as a whole host of annuals. But these are apt to have rather a temporary existence compared with those we have before named.

Double and single violets make tolerably good edgings, but certainly not such neat, compact and well defined ones as are required. Some small leaved sedums seem to answer pretty well in this respect.

Wherever there is a particular kind of plant available for this purpose, it is perfectly right to use it, and as soils and climes differ, as well as tastes, it is better to have a choice of objects. Now as to other things.

Stone edgings, dressed stone beading, showing about three inches above the ground, and less than that in breadth, look remarkably well, when correctly placed, to do which it ought to be on a slight foundation of stone or brick work. But this will not be adopted except by persons having "long purses."

We do not admire fancy tiles, which are sometimes used. They seldom look well. They will suit best a formal city garden.

Flints and small boulders, or pebbles, of something like a uniform size, and partly imbedded in the ground, make a tolerably good looking edge for a time. But they are liable to get loose, and soon become discolored. Shining stones, also, look well for a time, but are liable to the same objection, as is also the shingles gathered on the sea coast, or from rivers.

Oak boarding, or plank, is sometimes used for kitchen gardens of large size. But even oak is perishable, and expensive in the first instance; otherwise, its appearance (when painted) is good.

Ironwork is generally too expensive. Slate edgings are too thin to look well, and when thicker are very expensive on this coast.

Good hard kiln bricks certainly make the best and cheapest of all edgings besides the living ones, or where there is too much shade. Curved lines may also be made as well as straight ones, and are alike available under trees and in the open ground, and they may have, as we see to advantage in this city on Sutter street, 720, a live edging of moss *sedum* planted by the side of them, or, if desired, allowed to cover them entirely. They certainly form the firmest and best of edgings, short of those more expensive articles, manufactured expressly for the purpose.

If the many readers of the PRESS know of something or other altogether different from what we have named, we shall be glad to learn what they are and how they answer.

SEEDLING CHERRY STOCKS.—The best stocks for the propagation of cherry trees are raised from seed. Many who would like to grow seedlings are not aware that the best way to secure a certain germination of the seed is to plant the pits within a month after they are taken from the ripe cherry. Carefully crack the stones so that the moisture of the soil can gain access to the kernel, and then keep the soil sufficiently moist for ordinary germination of seeds, and a growth of from twelve to eighteen inches can be relied upon generally the same summer.

HORTICULTURE.

The Banana.

In pursuing our descriptions and illustrations of the indigenous fruits of our country, we come now to speak of the Banana. The genus *Musa* of the Musad family, is one of the most important found in tropical countries, and the principal food of vast numbers of the inhabitants of hot climates. It is in many places the chief support of a family, as an extent of ground which sown in wheat could only maintain two persons, will yield in bananas sufficient sustenance for a family of fifty.

Numerous varieties are produced from seeds and in some of these varieties it seems indigenous to almost all hot countries. Besides its utility as an article of food, a strong fibre is obtained from the leaves and stems, of remarkable fineness. An intoxicating drink is also made from the fermented fruit, which the Indians or natives are not slow to avail themselves of, and this remark is equally true of nearly all sweet fruits in any country.

Besides the Banana and Plantain with their slightly varied varieties, common to the West Indies and Central America, we illustrate in Fig. 1 and Fig. 2 varieties found growing further north than the more tropical varieties, common to Northern Mexico, Arizona, and Southern Utah. The plant is there known as the Spanish Bayonet (*yucca baccata.*) The fruit is produced upon a stem a little longer than the leaves, with several laterals. They vary in shape, some of them resembling the West India banana and nearly equal to them in flavor.

The fruit is of a greenish-yellow color, of a soft pulpy nature, very sweet and palatable and differing from their prototypes of more tropical climes in having *large* black seeds, and being produced only every other year from the same plant. The natives of the countries where grown, dry large quantities of the fruit for winter use. Even the unripe fruit is roasted in hot ashes and eaten with avidity, while the young flower buds when about to expand are also roasted, being a highly-prized article of diet.

The leaves of this species of *Yucca* yield a long and strong fibre, somewhat coarse but very durable. The plant will grow on the poorest kind of dry soil and could be grown in many parts of California where the more tropical varieties might not succeed as well.

In Figs. 3, 4, 5 and 6 we present full size illustrations of different varieties of Dwarf Cherries (*Prunus pumila*) found in many parts of the country, both east and west of the Rocky Mountains. It seems more properly a species of plum; grows upon a bush from two to six feet high; fruit larger than a damson, sweet, and in color from a light pink to a deep crimson, and from a light to a deep yellow. The shrub thrives in sandy places and the fruit is sometimes gathered in large quantities by the Indians, wherever obtainable and dried for future use, plum gathering being one of their festival seasons. The tree has been domesticated in California and the fruit makes excellent preserves.

Cherry Culture.

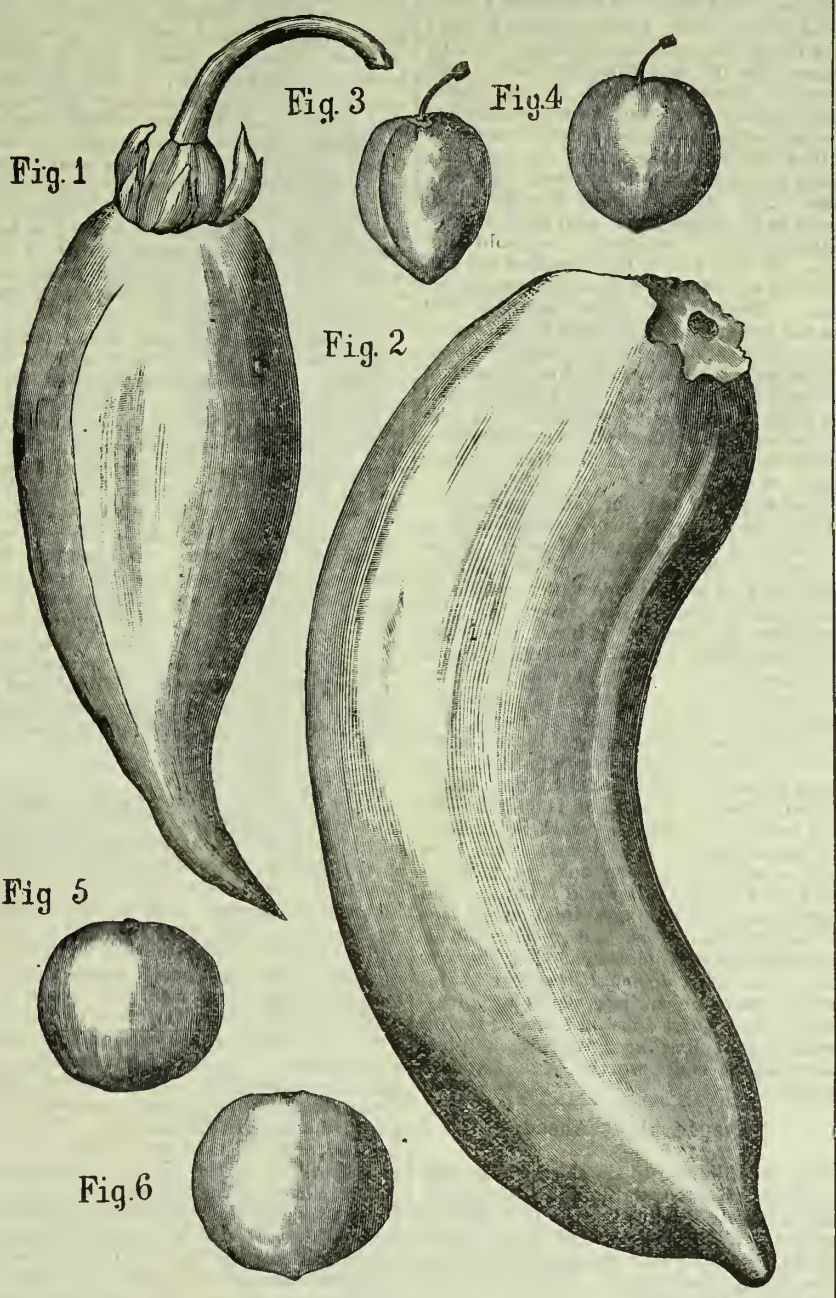
Among the early fruits of the season, the strawberry in several of its varieties, considering its early maturity and great productiveness, is, perhaps, the most popular and profitable; but the fact of their wonderful abundance at an early date in spring-time, necessarily lowers the value of the berry as a market fruit very soon after its first appearance. This with the fact of its being a fruit that requires much care and labor in its production, places it in our opinion, second in point of profit to the cherry.

In the cherry we have a tree fruit, requiring but little attention in the matter of cultivation after the young trees are once established. The tree itself is an ornament to any plot of ground or lawn; is generally productive on suitable soil, is subject to no disease or injury from insect, or very rarely; the fruit is, by many preferred even to the strawberry, is not as quickly perishable, will bear transportation far better and pays a larger profit on cost of culture.

ANTIOCH MAY 10th.—W. J. Smith writes us that "our crops are looking much better at present." He renews his subscription to the RURAL and says "I cannot do without it."

Cause of Double Flowers.

It is impossible for any inquiring mind not to attempt an explanation of the fact, that many plants which, in a state of nature, never present more than a single row of petals, begin to assume several rows under continued cultivation. The effects of a richer soil, and other general circumstances, or the mere accident of double petals in one plant, transmitted with improvement through its progeny, are the common explanations, and they are generally received as satisfactory, without reflecting that what we call accident is itself the result of some cause and that change of condition must attack some physiological principle before it can have any effect in modifying the character of a plant.



NATIVE FRUITS.

Nothing now is so common as double flowers. Every gardener who sows seed wishes to obtain plants with double flowers, so as to have blossoms which produce the greatest effect. Every double flower is a monstrous vegetable. To produce this anomaly, we must attack the principle of its creation—that is to say the seed. This being granted let us examine in what way these seeds ought to be treated. If we sow the seeds of many flowers, the greater number of seedlings will produce single flowers; whilst on the contrary, if we preserve these same seeds for three or four years, and sow them, we shall be apt to find double flowers upon some of the plants. To explain this, some say, that in keeping a seed for several years we fatigue and weaken it, so that the energy which would otherwise have been expended in producing stamens, produces petals. Then, when we place it in a suitable soil, we change its natural state, and from a wild plant make it a cultivated one.

What strengthens this position is, that plants in their wild state, shedding their seeds annually, and sowing them as soon as they fall to the ground, yet in a long succession of time scarcely ever produce plants with double flowers.

Thus it would seem reasonable, we think, that whenever a gardener wishes to obtain double flowers, he ought not to sow the seeds till after keeping them for as long a time perhaps, as possible.

These principles are equally applicable to melons, and all plants of that family. It is pretty well known that when we plant old melon seed, we obtain an abundance of very large fruit. In fact, in all varieties of the melon, the seeds should always be kept from three to eight years before being sown, if we would obtain fine fruit and plenty of it, and not too many shoots and foliage alone, with very few flowers.

Why old seeds do this we are not able exactly to explain. One thing, however, is certain—many plants and fruit trees will not produce blossoms unless sustained in extreme vigor. Thus a happy medium as to nourishment in the soil, pruning in spring and summer, and not planting too young seeds, would seem the best course—especially as to flowering plants. One thing is certain, at any rate—that old seeds have certainly a tendency to produce flowers, and sometimes double ones, more freely than new seeds.



Postal Cards.

The Third Assistant Postmaster-General, has given notice that the necessary appropriation having been made for the purpose, the Department would on the 1st of May commence the issue to Post-masters of the postal cards authorized by the Act of June 8, 1872.

Postal cards will be sold for one cent each. An ordinary printed business card may be sent through the mails when prepaid by a 1 cent postage stamp attached; but such card must contain absolutely no written matter except the address, otherwise it will be treated as not fully prepaid, and refused admission into the mails. The postal cards are 3x5 inches in size, with one side blank for writing purposes.

All cards different from those herein described bearing embossed or printed postage stamps, and purporting to be United States postal cards, are counterfeit; and the manufacturer of such cards or the attempt to use the same, will subject the offender to a fine of $500 and imprisonment for five years. (SEC. 178 Postal Code).

Postmasters will not, under any circumstances, be permitted to reduce or exchange postal cards that may be misdirected, spoiled in printing, or otherwise rendered unfit for use, in the hands of private holders.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., May 20th, 1873.

FOR WEEK ENDING MAY 6th, 1873.*

FIRE ESCAPE.—Charles C. Milton, assignor one-half interest to Edward A. Learned, S. F., Cal.

WAVE POWER.—Charles Buckner, assignor to Henry Brune, John Reiners, J. H. A Lndwig and Isaac M. Ward, S. F., Cal.

CONDENSER AND REFINER FOR SPIRITUOUS LIQUORS.—William Neil, S. F., Cal.

TREATING GOLD AND SILVER ORES.– Joseph Kallmes, S. F., Cal.

COMBINED SHEARS AND BUTTON HOLE CUTTER.—Alfred Swingle, S. F., Cal.

MANUFACTURE OF SOAP.—Richard P. Thomas, S. F., Cal.

CANADIAN PATENT.

NEW MATERIAL FOR STUFFING MATTRESSES.—William J. Woodley, assignor to self and Julius Jacobs, S. F., Cal.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

From Walla Walla.

We have received a letter from F. B. F., of Walla Walla, Washington, so despondingly in tone as regards the condition of the fruit crop incident to the late spring frosts; the condition of the grain market and the season's prospect for the country generally, together with the disappointment connected with the delay in the construction of the Northern Pacific Railroad, that we hardly feel like giving full publicity to the communication; for we would not speak a single disparaging word of the prospects of our neighboring Territory. Our correspondent, if he has good health, must "thank God—for what he now has—and take courage."

CALIFORNIA FARMERS' UNION.—The Executive Committee have had several meetings, and have now adjourned to Wednesday, May 28. Plans for incorporation are being considered.



Into Mischief.

Dancing feet and busy fingers,
Never still the whole day through,
For the little brain from dreamland
Brings them work enough to do.
Racing through the gorgeous parlor,
Romping on the winding stair,
Tearing books and breaking vases—
Into mischief everywhere.

Picks the cakes and tastes the jelly,
Breaks the window, slams the door,
Throws the statues from their brackets,
Scatters play things on the floor;
Tearing little coats and trowsers,
Rumpling up his curly hair—
Busy, naughty little fingers,
Into mischief everywhere.

Spilling ink upon the carpet,
Dashing pictures from the wall,
Breaking mirrors, singing, shouting,
In the attic and the hall;
Tracking mud across the entries,
Turning over desk and chair,
Cutting up the morning paper—
Into mischief everywhere.

But no look of hate or malice
Darkens o'er those laughing eyes;
Not a thought of harm or sinning
In his little bosom lies:
For his soul is pure and guiltless,
What'er harm the fingers do—
Though the little feet are straying
Into mischief all day through.

About Pain—Insect and Human.

The poet insists that a crushed insect

In corporeal suffrance finds a pang as great
As when a giant dies.

Good poetry, perhaps, but bad physiology and metaphysics. Man has a mind and an exquisitely sensitive nervous system. Beetles have neither, and as the pangs of human dissolution are mental as well as physical and bodily pain is a nervous sensation, it is evident that an expiring bug, which has neither soul nor spinal marrow, cannot feel "a pang as great as when a giant dies." The lower the animal in the scale of creation, the less pain it must experience from injury and in the act of dying. If anglers believe that a worm or a minnow suffered the same torture from the implement as a human being, they would hardly consider it sport to fish with "live bait," and if epicures surmised that a stabbed oyster felt all the agonies of a stabbed Christian, they would be unable to swallow the gelid victims by the dozen and smack their lips over the repast.

If the poet's doctrine were true, what a set of monsters we should be! To keep a lawn in proper trim, it is necessary to draw a ponderous roller over it now and then. Every blade of grass supports its colony of insects—the sward is alive with creeping, wriggling, jumping things; over them goes the remorseless cylinder, slaying millions. If each endure the agony of a human death, what should we think of the gardener and his employer! But it is not so. Pain is relative. Creatures are susceptible of it in proportion to the perfection of their structures. A trout can feel more of it than an oyster, a quadruped more than a fish, an insect or a reptile, and man infinitely more than any of the soulless and comparatively brainless brutes.

Nevertheless, whoever wantonly kills or injnres any living thing is not blameless. Many good people have their doubts about the innocence of angling—as a sport. People who wish to live, one can have nothing to say against, but people who live to fish, as the sentimental Izaak Walton did, and as some of his disciples do, are not so excusible. When a worm is pricked with a hook, he manifests unmistakable signs of not liking it. He may not experience the pangs that an animal with a backbone would snffer under the same circnmstances, but he feels a worm, and even a worm's feelings should be measurably respected.

It is generally supposed that circnmstances being equal, one man suffers as much pain from a given amount of mutilation or injury as another. It is nevertheless, unquestionably that men differ as materially with regard to their susceptibility to pain as their capability of bearing it manfully. Everything in these cases depend upon the will. Much depends upon the fineness or the coarseness, the weakness or strength, of the sensorial organization. The patient who writhes and cries out under the surgeon's knife, may be as brave as he who lies silent and impassive on the operating table.

The Loveableness of a Baby.

Olive Harper in one of her letters to the *Alta* gives the following;—"At Sacramento a handsome young Jewess came on the train, with a beautiful baby, six months old. I love babies. I hated them nntil I had one of my own, and ever since I have loved every baby I have seen. I don't care for dirt or cries, or anything. A baby to me is the divinest thing on earth, the beautiful flower of a rough human plant. The innocent eyes, and sweet purity that so soon becomes clouded in older ones, is still in the face of the infant that can only speak with inarticulate murmurs and cooings. The little dimpled fingers clasp yours so trustingly now, that so soon will, with the rest of us, grasp for gold and gain. So this lovely babe reached out and dimpled his cheeks as I took him in my arms. The proud little mother told me the father had never seen his baby yet, and she was now going to meet him at Palisades. Then she took him, and laid the waxen cheek on her snowy breast, and his long black lashes drooped over the blue eyes, and he slept while her fond eyes rested on him with such devotion as only a mother can feel.

I set and watched her, and thought of all the ties on earth, that of motherhood is the divinest, the nearest Heaven. Even the little birds are conscious of its holy bond, as well as the wildest, fiercest bloodthirsty beast that roams the plain. The very plan of creation, of birth is divine. From the little ripened seed that drops from the plant to swell and grow in beauty and tenderness, to strengthen maturity, through all classes of birds, beast, fish and plant, and every living thing on earth or in the water, all are created alike. The plant gives its ripened seed to the earth, and with its gift its mission is ended. The bird rears its young—her work is finished, and she is happy; the tigress rears hers with a tenderness born only of motherhood, and she is gentler and is happy; and there is no unreasoning animal on the face of the earth that does not receive the divine spirit in their motherhood. The woman whose heart does not respond to infantine tears or smiles, pains or pleasures—whose heart does not grow tender towards the clinging grasp of helpless baby fingers, is not worthy of the name of woman."

Keep Straight Ahead.

Pay no attention to slanderers or gossipmongers. Keep straight on in your course, and let their backbiting die the death of neglect. What is the use of lying awake nights, brooding over the remarks of some false friend, that runs through your brain like forked lightning?

What's the use of getting into a worry, and fret over gossip that has been set afloat to your disadvantage by some meddlesome busybody, who has more time than character?

These things don't possibly injure you, unless, indeed, you take notice of them, and in combating them, give them character and standing. If what is said about you is true, set yourself right at once; if it is false, let it go for what it will fetch.

If a bee stings you, would you go to the hive and destroy it? Would not a thousand come upon you?

It is wisdom to say little respecting the injuries you have received.

We are generally losers in the end if we stop to refute all the backbitings and gossipings we may hear by the way. They are annoying, it is trne, but not dangerous so long as we do not stop to expostulate and scold.

Our characters are formed and sustained by ourselves, and by our own actions and purposes, and not by others.

Let us always bear in mind that "calumnies may usually be trusted to time, and the slow but steady justice of public opinion."

The Auctioneer's Dilect.—The following is given as the nonsensical jargon of an auctioneer, when selling from the store: "Half a-dollar, halfadollarfadollafadollafadollathat's bid now, give more'f ye want it! Half-a-dollar five-eights three qnarters—three-quarters I'm bid—will yon say a dollar for this standard work octarvo best edition half morocker extry! Three-quarters I'm bid, three-quarters, will ye give any more? Three-quarters, three-quartheequartthee-quart-thee-quawt one dollar shall I have?"

A Note for Darwin.—In time the mulberry tree becomes a silk gown, and a silk gown—becomes a woman.

Our Humming Bird Friends.

As we sit at our task day after day toiling for that pittance which the Scriptures say we must eat in the sweat of the brow, we are gratified by the presence of a little visitor who comes to sip the nectar of a fragrant rose blooming in our window. Every morning before the sun has dried the dews in the petals of the flowers, this little humming-bird, with its attenuated and active wings, comes, like a spirit from some fairy realm, to cull its early sweets. Oh! what associations it brings! Oh! what thoughts its visits inspire! sometimes pleasant and sometimes sad! Often has it taught us that far away in the land of imagination there is a place where the weary are at rest and the "mournful look up and are glad"—where the toil worn pilgrim on the sandy deserts of this world shall labor and weep no more; and where the sun of Righteousness illumines the place with "healing in its wings."

It reminds us, to, of many dear friends in whose eyes once glowed fires of love and confidence, on whose lips played smiles of devotion and sympathy; but who are now indifferent and estranged! Oh, how little they realize what pangs of pain and sorrow that coldness imparts to hearts still warm and gushing with undying friendship! Though friends may fall away, and brambles spring up in the path of life—though pleasures, once ours, are changed into despair, and we feel *alone* in the great struggle with fate; our little morning visitor, with its musical hum, inspires for a moment a sort of respite from gloomy sensations. To us its calls are welcome, and we hail it with gratitude. Would that we could induce it to come the year round, that we might enjoy its friendly greetings in hours of depression.

"Go To Pot."—Many of our commonest words and phrases, which have suffered little or no phonetic corruption, trace their origin to remote sources, the existence of which is only revealed by recondite historical evidence. Few of our readers, we imagine, have ever thonght it worth while to bestow any attention on the slang phrase "gone to pot" (equivalent to "come to grief"); nor are we aware that candidates have been required by the Civil Service examiners to expound its origin and primary import, and illustrate the same by examples. Nevertheless, there lurks beneath this jocular expression the ghost of a very tragic meaning. We learn from Procopius that one form of human sacrifice among the North Germans consisted in casting the victim among thorns. From this ancestral practice is manifestly derived the popular Westphaliau saying—"She will come to the thorn bush," which is applied to a girl who breaks the Sabbath by spinning too late on Saturday night. About Dortmund, when the servant girls have not finished their allotted quantity of flax on Saturday, they are put sitting upon a great bundle of thorns, which is laid in a wooden hog-trough. This horrible apparatus is called the pot (*der pott*); a horse is yoked to it, and the nnfortunate girl is dragged through the village amid the jeers and hootings of the rabble. In 1857, a girl who was about to suffer the torture and disgrace of such a punishment, set fire to her master's barn as the only means which despair suggested to her of diverting her tormentors from their purpose. In the previous year, another girl drowned herself in the same village, actuated by the same dread.—*Temple Bar Magazine.*

A Poetess in the Kitchen.—Jean Ingelow, writing to an American lady has the following thoughts in regard to the elevation of household work:

So long as household work is thought degrading, (and no where is this so much the case as in America,) there can never be anything like universal education; there must always be some who work all their lives, because others will not work at all. It is to be one of the great things that you Americans, I believe are raised up for, to teach the world how this is to be done; but the teachers can never be those who are poor; they must be those who are not obliged to work at all.

How to make clear-starching and ironing graceful, and pretty occupations, (and such they were thought by our great-great-grand-mothers,)how to keep a house clean, and to assist, even in a kitchen, without the least sense of being lowered, or the slightest personal deterioration, might surely be managed if woman gave their minds to it—if more delicate machinery was invented for helping them, and if it could even be made the fashion for all women, young or old, to pride themselves on their domestic skill.

Young Folks' Column.

Boy Heroes—No. 6.

The Boy that Was Not Remarkable.

Having had considerable to say about "remarkable boys," we have thought that some of our young readers might like to hear something about some boy that was not particularly remarkable, and here we have it as told by one of our exchanges:

Most boys who "get into the newspapers, are very remarkable boys.

Joe had nothing about his looks, or actions, or color that attracted the particular attention of anybody.

When he first breathed the vital air he was simply a boy baby, with two hands, two feet, two eyes, two ears, one mouth, and one nose. He did not laugh, and crow, and sit upright, as yonng geniuses do in their babyhood, but he slept, and waked, and ate, (baby food, of course), and cried like any common baby.

When he grew older there was no uncommon developments, except that he was fat and healthy, and heavy.

Nobody congratulated the mother on raising a future President, nor applauded the bright genius that sparkled in the baby's eyes. The gossipers looked wonderingly at each other as the tender mother watched over her baby boy, provided for his comforts, and pressed him to her warm bosom.

He grew to boyhood, but he was only a common boy. He learned his A B C with difficulty, and was slow in learning to read. His teacher thought he never would "get through the multiplication table." But he never forgot it.

When the boys went fishing Joe went too, but he was slow in getting his hook and line ready. The other boys were on and in and around the lake before his hook was fairly settled in the water. "Too slow to move," the boys would say. "He'll sit there expecting the fish to come to him." It was even so; he remained stationary and fixed; but when night came somehow his basket was always full, while many of the bright talking geniuses went home with the sad intelligence that the "fish wouldn't bite."

When he grew to be a man, the bustling drive-aheads laughed at his plodding; but by some means he seldom made a mistake, and though he did not seem to accomplish as much in a week as many others did in a day, yet at the end of the year there was always something tangible in his results, while the work of those who seemed to utterly outstrip him at first ended in demolished air castles.

He has passed the meridian of life. Men eminent in the profession respect his judgment. Business men coming upon the stage of action long to learn the secret of his success. The bank leans upon him to carry it through the trying crisis; merchants and manufacturers lean upon him to save them from the bankruptcy. Steady, constant, and hard study made him a scholar; persevering industry, accompanied with economy, raised him to opulence; close observation and deliberate reflection cultivated a sound judgment, and honesty and integrity secured for him the confidence of all who knew him.—*Christian Advocate.*

The Little Boy Who Was Not Afraid.

A correspondent sends us the following for publication in our "Young Folk's Column:"—A few years ago the elder members of a family residing in Victoria, Australia, took a walk to what they called "the falls," a break in the creek where the water fell over a rugged stony slope. It was a very pretty sight on a cool summer evening to see the water sparkling and dashing down; the setting sun adding charms to the scene. In the party was a little boy about five years of age. While the older folks were sitting, chatting and resting the little boy wandered unnoticed to a short distance and was soon hidden by the long grass and bushes. The party returned homeward and not until near the house did they miss the boy. All were much alarmed for many a sad story of lost children can be told every year in Victoria. The young men retraced their steps with haste while the girls hastened home to send out horsemen in the search. The searchers resolved to go at once to the "falls," and if the boy was not there to start each one in a different direction and search until dark.

Fortunately, however, on searching the spot they found the little fellow saying his prayers preparatory to going to bed. He had pulled some long grass and spread it on the ground, making as snug a bed as he could.

"But were you not afraid, John?" said one of his brothers.

"Oh! no, replied he, I thought God would take care of me, to-night, and that you would come here to look for me in the morning." It is not often that children are lost in this country, but if such a sad event should ever happen to any one who shall read this little story, let him remember that John trusted himself to God's care and remained in the one place near to where he had been seen last.

Nursery Notices.

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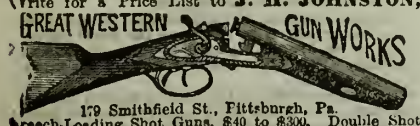
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Irrigation.

The Farmers of Merced County in Council.

In response to a call made by the President of the Farmers' Club, a mass meeting of the farmers of this county was held in the County Court Room on Saturday May 10th, to devise some measure for irrigating this section of the San Joaquin Valley.

Among those Present,

We observed some of the wealthiest and most intelligent farmers of this county, and they all seemed to be fully cognizant of the fact that to make farming a paying business, a thorough system of irrigation must be inangurated. The meeting waa called to order by Mr. Jolly, who briefly allnded to the subject that had called the farmers together, and stated that the subject of irrigation was open for discussion. Mr. Marks introduced to the Club

Mr. Kehoe,

Who came forward and in a lengthy address spoke of his observations in Mexico, where sterile lands had been reclaimed by irrigation, and where almost insurmountable obstacles had to be overcome, that in the San Joaquin Valley no great obstacle intervened to prevent irrigation, and all that is needed to insure good crops every year, was for every one who is at all interested in the development of this great valley to work together as in common cause. He alluded to the vast aqneducts and reservoirs built by the Romans and of the unparalleled fertility of the country benefited by them. Mr. Kehoe was warmly applauded in the conrse of his remarks. Calls being made for

R. H. Ward,

That gentleman came forward and said that in viewing the past, there was no need of argument to prove that irrigation was a necessity in San Joaquin Valley. Men had come here aud purchased land inferior to none on the Pacific Coast, but there was not a farmer within the sound of his voice that could say with truth that he had made anything out of farming and that a good many were a

Long Way Behind.

Why was this? It was not becanse their land was not fertile; it was not becanse they had no market for their prodnce. They had been industrious, and economical; but they could not control the elements. It was not the farmers alone who were interested: the mechanic, the professional man, the laborer and the merchant—all should put their shoulder to the wheel and carry the project to a glorious ending.

Mr. J. Montgomery

Then gave the assemblage his views on the subject of irrigation, and said that there might be some difficulty with parties owning mills or ditch privileges on the various streams from which they proposed to secure their supply of water for the proposed canal.

Mr. Morton,

In reply, stated as his opinion that there would be no obstacle in that direction; as at the time the water was wanted the rivers and streams are full. He also stated that we want a canal at least

Fifty Feet Wide and Four Feet Deep,

To be taken out of the Merced River, high enough to cover all the good lands lying between the foothills and the San Joaquin River, and extending along said foothills from where it is taken out of the Merced River, into Dead Man's Creek.

In order to constrnct that canal, it will require a large amount of capital, and what is the best and safest plan to obtain the capital, must be the first and most important point, to start with, and also the leaat oppressive to the farmers. In order to raise a sufficient amount of capital, it might be necessary

To go Outside

Of the connty to obtain it, and in so doing, before capital will be invested, the capitalists must see where their secnrity and returns are coming from. To obtain that security, the farmers will be unanimons in singing articlea of agreement to

Take Water at $1 per Acre,

For the period of ten years, payable at the harvest anuually, and sign enough acres to guarantee the iuvestment, the capital can be obtained; therefore, let a committee be appointed, whose duty it will be to see every land owner, and ask him how many acres he will be willing to bind himself to take, and when that is accomplished, which should be done as soon as possible, notice should be given throngh the columns of the county press, calling a meeting immediately to take these matters under advisement, and to devise ways and means, most practicable to construct said canal, giving each and every farmer and resident of this county an oportunity to take as much stock in the enterprise as he possibly can. In order to accomplish that point, after a careful survey and estimate of the cost and construction by competent engineers, let the canal be

Constructed by Contract,

Beginning along the line of the canal, and let from a quarter of a mile to one mile, as parties may feel able to build, the owners of land, in all cases, to have the first privilege of such contracts. Let the company pay on snch contracts 20 per cent in cash, as the work progresses, and all parties taking contracts, be required to give a bond to have such contract completed on the

1st Day of February, 1874.

In thus proceeding, the farmers will be enabled to take stock enough, perhaps, to hold the majority of stock within themselves, and the one dollar per acre that they pay out, they will be receiving again, in the shape of dividends, thereby having their water at a very small outlay. The moment this project is fairly underway and on a safe and permanent basis, land will assnme a true value—not an imaginary one—as is at present, the case. Lands now, are assessed too high; taking into consider ation the dry seasons. When operations are commenced, under favorable auspices, farmers will have made as much money in the shape of

A Permanent Valuation

Of their property as wonld build three such canals. Hence, the farmer has everything to gain and nothing to loose, thereby insuring to himself and posterity benefits incalculable. When the work is started there will be no trouble in finding capital (it is not like mining speculations, Mining Ditches, or Canals, which become worthless after the gold is extracted), this will increase in valne every year; it is no experiment. Look at other countries and

See What Irrigation has Done.

In starting this work, let there be a clause inserted in the article of agrecment, "that parties now subscribing $1.00 per acre are always to have the first privilege of using the water."

There are rights and interests which have been secured to the waters of the Merced River, and are not held by capitalists, or speculators; but buy citizens amongst us, who will work in harmony with us, and assist the enterprise all they can. Appoint a committee of teu, to see the property owners, and find ont what amount of land in acres they will subscribe for at $1.00 per acre, per annum.

Mr. Ashe being called on, gave his views on irrigation, and related that he had seen ou the west side of the San Joaquin river since the commencement of the dry weather, and that land now irrigated would yield

40 or 50 Bushels to the Acre,

And that alfalfa atood three feet six inches high. Mr. Montgomery stated that the San Joaquin river was the stream from which to obtain water for irrigating this section, as it offered natural advantages possessed by no other stream. Mr. Clay thought it practicable to draw the waters of the Merced river into this valley. The proposition reduced itself to simply this: Crops could not be raised in this valley without irrigation. Mr. N. S. Rogers said that in looking around him he could see that

A Determination to do Something

Was impressed on every countenance, and where money was not forthcoming there was muscle present that would be offered in its stead, and as soon as the ditch was completed others would follow. Mr. Montgomery thought the work on the canal should go right ahead. Parties in Stockton aud San Francisco owning land along the line of the proposed canal would gladly help the enterprise along; he moved that a committee of three be appointed to enquire into the nature of the different parties holding ditch and water franchises on the Merced river. On motion of Mr. Mortou a committee of ten were appointed to canvass the district to be benefitted by the proposed canal, and ascertain how many acres can be secured to pay one dollar per acre toward its constrnction, and the following gentlemeu appointed on the committee: Messrs. Simona Kehoe, Montgomery, Dugan, Fancher, Fowler, Douglass, Elliott, Carrol and Rogers.

The meeting then adjourned.—*Merced Tribune.*

Worn Gold Coin Not a Legal Tender.

The recent act of February 12th, 1873, has entirely changed the character of all the gold coins in the United States which are in actual use. The law provides that all gold coins shall be a legal tender in all payments at their nominal value, when not less than one-fourth of a grain less than the coined weight. If they are more depreciated than that they are to be received only at their nominal value. The Treasnry will however receive them at their nominal value if not depreciated more than one half of one per cent. This regulatiou is more liberal than the first, for there in order to be a legal tender a gold coin mnst not have lost more than one-tenth of one per cent. In ordinary business matters this will create little practical difficulty, but in the payment of large sums in gold coin, the loss in many instances will be not less than $1,000 in $100,000.

EXPLORING EXPEDITION.—A dispatch from New York states that the expedition which is to explore the mysterious country lying betweeu South Pass, in Wyoming, and Gallatin Valley, in Montana, will be under the command of Captain Jones, of General Ord's staff. It will include a scientific corps, nnmbering 13. The escort will be two companies of cavalry, under command of Lieutenant James N. Whelan. The party were to have left Fort Bridger for the Wind River country, May 10th, and will go as far as the Yellowstone lakes, traversing a new and most interesting conutry, which, according to popular belief contains rich deposits of gold and other valuable ores.

Organize Farmers' Clubs and Granges.

For the information of those wishing to organize Granges, we publish the following extracts from the Consitution of the National Grange:

1. Any person interested in agricultural pursuits, of the age of 16 years (female) and 18 (maies), duly proposed, elected, and by compiying with the by-Laws of the Order, is entitled to membership and the benefit of degrees.

2. Application for a dispensation to organize a Grange must he made by not less than nine men and four women, nor more than twenty men and ten women, through a Deputy to the Secretary of the National Grange; said application to he accompanied by a fee of $15. Charter members are those only whose names are upon the application, and who have paid a fee of $3 upon signing The $15 is paid out of the fund created by the payment of fees.

3. As soon as fifteen subordinate granges shall have been organized in this State, a State Grange will be organized, and the dispensations will be replaced hy charters, without further fee.

4. Religious or political questions will not be tolerated as subjects of discussion in the work of the Order, and no religious or political tests for membership shall be applied.

5. The minimum fee for membership in a subordinate Grange shall he, for men, $5; for women, $2 for the four degrees; except charter members, who shall pay—men, $3; women, 50 cents. The minimum monthly dues shall he from each momher 10 cents.

5. The officers are as follows: Gentlemen—Master, Overseer, Lecturer, Steward, Assistant Steward, Chaplain, Treasurer, Secretary, and Gate-Keeper. Ladies—Ceres, Pomona, Flora, and Lady Assistant Steward. There is also a Standing Executive Committee of three which has charge of the husiness of the Grange.

WM. H. BAXTER, Deputy, of Napa, Cal., will give further information and organize granges. Blank copies of Constitutions for organizing farming clubs will be sent free on application to this office.

The Sanitarium.

Now that the Sanitary Hotel and Industrial College Association is fairly in working order, as will be seen hy reference to its advertisement iu our columns to-day, it may he well to give a calm, dispassionate survey of the field of its operations and the labor it has before it, as well as the results that may be looked for.

Walter Colton, a Chaplain in the Navy of the United States, published in 1849 a hook on California, iu which occurs language somethiug like the following:

"After being some months a sojourner fn this heantiful Southern Land, where the vine and the olive are at home and the zephyrs are tempered hy the largest of oceans, and where hy the records of the faithful Fathers, this must be one of the most salubrious and peaceful climes on earth," etc., etc.; predicting from his own observation that at no distant day this southern part of California would be the resort for valetudinarians from all the world. However, the rush for the golden treasures of the North has caused the fmportance of our country as a place of permanent residence to be overlookcd and undervalued until the past four years.

By oarefully prepared tahles of thermometrical and hygrometrical records, it is now proven that there is not in the known world a climate more desirable.

The many instances of longevity among the inhahitants about the Old Mission of San Gahriel go to snbstantiate the other evidences of our superior climatic advantages; and there are daily acqnisitions to the ranks of those who fail of relief elsewhere and are recovering here from what are usually termed incurable maladies.

Taking the above, in connection with our advantages of production in the way of fruit, grain, vegctahles, hutter, honey, heef, mutton, and all the staples required for subsisteuce, we give assurance to the sojourner in Los Angeles that no important accessory is wanting.

It might he mentioned here, incidentally, that the modest amount of capital mentioned ($250,000) hardly conveys an adequate idea of the extent of the operations contemplated. Au abundance of fruit at all seaons of the year is a great desideratum for any one, in the promotion of health or the alieviation of disease.

The originator of this Institute has been a worker in the cause of humanity, for many years. No time or pafna have heen spared in the fuliest research to discover in earth, air, water or food, the panacea for the "ills that fl-sh is heir to."

Given the proper altitude, together with the other advantages before enumerated, there is no apparent reason why this enterprise should not succeed. Four of the members of the association are among the oldest and most respected of our citizens, and, together, represent many thousand acres of the cho cest lands in the Gardeu of the Pacific Slope; and all are of rich experience and untarnished reputation. Some of the members of the association, hy reason of long years of travel and honorable service, are preemiuently qualified to fiil any position amoug us; therefore, it would seem that both Los Angeles and the association are fortunate in having such persons to carry out a movement that is destined to benefit all.

To say the least, this looks like a most hopeful augury for our future, when, after a careful and disinterested survey of the whole Coast, this point has been selected for the operation on a scale heretofor unknown of a Worlds Sanitarium, which, by its many advantages, is hound to draw people from all quarters to partake of its benefits.—*Los Angeles Express.*

Thresher's Guide and Farmer's Friend—Just Published.

Written hy D. Hollihan, a practical thresher for over fifteen years.

It contains facts and hints of great valne to both threshers and farmers. A small hook worth many times its cost to those specially interested, who thresh or employ threshers.

CONTENTS.

Beater, care of; Belt Protector, Hollihan's (Illustrated); Belts, Management of; Cracking of Grain; Cylinder, How to balance; Cylinder, Movement of; Cylinder, Motion of; Engineer's Duty; Geared or Belt Machines; Gears, Management of; General Management; Horse Powers; Horse Power, Moving a; Introductory Remarks; Machines; Machines, Management of; Machines, Moving them; Management, General; Rake, Speed of; Shoe, the; Shoe, Improved; Shoe, What it is; Sieve, New Jointed (Illustratsd); Stacking Wheat; Steam Powers.

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CANADA is ordering large numbers of the Blanchard Churn. They appreciate real merit in a farming implement.

Wheat Market Quotations Compared.

1873.	S. F. Liverpool. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Diff. Bet. Mail & Tel	Diff. Bet. S. F. & Tel.
MAR. 8....	1 80	2 85@2 91	.....	4	1.08
" 10....	1 80	2 85@2 91	.....	.....	1.08
" 11....	1 80	2 85@2 91	2 93@3 05	11	1.08
" 12....	1 80	2 85@2 91	.....	.....	1.08
" 13....	1 80	2 85@2 91	.....	.....	1.08
" 14....	1 80	2 89@2 91	2 89@3 01	5	1.10
" 15....	1 80	2 89@2 91	.....	.....	1.10
" 17....	1 80	2 81@2 87	.....	.....	1.04
" 18....	1 80	2 81@2 87	2 87@2 99	9	1.04
" 19....	1 80	2 81@2 87	.....	.....	1.04
" 20....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	2 87@2 99	12	1.01
" 22....	1 80	2 79@2 83	.....	.....	1.01
" 24....	1 80	2 79@2 83	.....	.....	1.01
" 25....	1 80	2 79@2 83	2 83@2 91	6	1.01
" 26....	1 80	2 79@2 83	.....	.....	1.01
" 27....	1 80	2 79@2 83	.....	.....	1.01
" 28....	1 80	2 79@2 83	.....	.....	1.01
" 29....	1 80	2 77@2 81	2 81@2 89	6	99
" 31....	1 80	2 75@2 79	.....	.....	97
APR. 1....	1 80	2 73@2 79	2 75@2 91	8	96
" 2....	1 80	—@—	.....	.....	96
" 3....	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	2 75@2 91	7	93½
" 5....	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 76@2 82	2 79@2 67	10¼	96½
" 9....	1 82½	2 76@2 82	.....	.....	96½
" 10....	1 80	2 76@2 82	.....	.....	99
" 11....	1 80	2 76@2 82	2 97@2 97	9	99
" 12....	1 80	2 76@2 82	.....	.....	99
" 14....	1 80	2 76@2 82	.....	.....	99
" 15....	1 80	2 76@2 82	2 83@2 95½	9	99
" 16....	1 80	2 76@2 82	.....	.....	99
" 17....	1 81¼	2 76@2 82	.....	.....	97¾
" 18....	1 82½	2 76@3 82	2 81@2 93½	9½	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 76@2 82	.....	.....	96½
" 23....	1 82½	2 76@2 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	.....	.....	1.02½
" 26....	1 82½	2 83@2 87	.....	.....	1.02½
" 28....	1 82½	2 83@2 87	.....	.....	1.02½
" 29....	1 82½	2 85@2 89	.....	.....	1.04½
" 30....	1 82½	2 85@2 89	.....	.....	1.04½
MAY 1....	1 82½	2 85@2 89	.....	.....	1.04½
" 2....	1 82½	2 85@2 89	.....	.....	1.04½
" 3....	1 82½	2 83@2 87	.....	.....	1.06½
" 5....	1 82½	2 83@2 87	.....	.....	1.06½
" 6....	1 91½	2 83@2 87	.....	.....	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 00	2 85@2 89	.....	.....	96
" 10....	1 90	2 91@2 —	.....	.....	1.01
" 12....	1 90	2 91@2 —	.....	.....	1.01
" 13....	1 90	2 —@2 —	.....	.....	.....
" 14....	1 90	2 93@2 97	.....	.....	1.05
" 15....	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	.....	.....	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.03½
" 19....	1 90	2 95@2 97	.....	.....	1.06
" 20....	1 90	2 93@2 87	.....	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.05

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. MARKET REPORT.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, May 21, 1873.

The tone of the produce market this week is rather quiet. Very little Wheat or Flour is taken for export, there being a struggle between holders and purchasers as to whether the recent rise in prices should be maintained. Barley and Potatoes have advanced, as also has Bran. Good Spring Wool is in demand.

The most important matter now attracting the attention of producers throughout the land, is the struggle to obtain cheap freights, with which view Grangers of Husbandry are being formed all over the country. At the late convention held at the Astor House in New York, the following amongst other resolutions were passed.

WHEREAS, The existing rates of transportation for the varied products of the Union from one part of the country to another and to foreign countries, as well as the transit cost of commodities required in exchange, are in many instances injurious, and to certain interests absolutely destructive, arising, in part at least from an inefficiency of avenues; and

WHEREAS, The great national want of the nation today is a relief from the present rates of transit upon American products; therefore,

Resolved, That it is the duty of the hour and the mission of this association to obtain from Congress and the different State Legislatures such legislation as may be necessary to control and limit by law, within proper and constitutional and legitimate limits, the rates and charges of existing lines of transportation; to increase where practicable the capacity of our present water ways, and to add such new avenues, both water and rail, as our immensely increased internal commerce demands, so that the producer may be jointly rewarded for honest toil, the consumer have cheap products, and our almost limitless surplus find foreign markets at rates to compete with the world.

Resolved, That the best interests of the different parts of the country also demand the freest possible interchange of the industrial products of the varied climates and the industries of the United States, so that breadstuffs, textile fabrics, coal, lumber, iron, sugar, and the various other products, local in their production, but general in their consumption, may all reach the consumer at the least practicable cost of transportation; and that an arbitrary and unnecessary tax levied by the transporter over and above a fair remuneration for investment is a burden upon the producer and consumer that it is the part of wise statesmen to remove.

Resolved, That certain leading railroad corporations of the country, although chartered to subserve the public welfare and endowed with the right of eminent domain solely for that reason, have proved themselves practically monopolies, and become the tools of avaricious and unscrupulous capitalists, to be used to plunder the public, enrich themselves, and impoverish the country through which they run.

Resolved, That the present system of railway management having failed to meet the just expectations and demands of the long-suffering people, it must be radically reformed and controlled by the strong hand of the law, both State and national, and railway corporations be compelled to perform their proper functions as servants and not masters of the people.

Resolved, That leaving the different sections and interests that desire cheap transportation to work out the problem in such manner as may be deemed best, we earnestly invoke their careful consideration, their energetic action and their resolute will in regulating and controling the rates of transportation, and giving remunerative wages to the producer and cheap products to the consumer, untaxed by unearned charges for their carriage.

Resolved, That we invite the people of the various States to organize subsidiary associations in State, county and town to co-operate with the National Association; that the power to accomplish the purposes desired rests absolutely with the suffering millions. Relief is within their reach and control. United action and the near future will give us as certain as its need, for all time and the good of all, the true solution of the problem of cheap transportation.

The monopoly so long held by the great railroad companies requires to be broken down, and it is only by united and earnest action on the part of the producers and consumers too, that this can be accomplished.

Receipts.

Receipts have been about the average of last, some articles being heavier and some lighter than last week. Receipts of Flour have increased; of Wheat have slightly decreased; those of Barley have been about the same; those of Oats have increased one-half; those of Beans have decreased three-fourths; those of Bran have decreased one-third; those of Middlings have been merely nominal; those of Potatoes have slightly increased; those of Wine have decreased one-sixth; those of Hay have increased slightly; those of Wool have nearly doubled; those of Onions have doubled; while those of Hides have increased one-third.

We summarize receipts of Bay Produce to date, as 9,928 quarter sacks of Flour; 50,844 centals of Wheat; 5,831 do of Barley; 198 do of Oats; 101 do of Beans; 1,216 do of Bran; 77 do of Middlings; 5,917 do of Potatoes; 488 do of Flax; 22,490 gallons of Wine; 5,396 bales of Wool; 717 tons of Hay; 433 centals of Onions; 50 do of Peanuts; and 2,238 Hides.

Receipts of Wheat at Oakland have aggregated 9,000 centals.

Receipts of Coast Produce have been light. They have aggregated 673 centals of Wheat; 4,893 do of Barley; 174 do of Oats; 160 do of Corn; 42 do of Rye; 33 do of Beans; 1,215 do of Potatoes; 230 Hides; 30 centals of Peas; 112 do of Mustard Seed; and 567 bales of Wool.

From Victoria we have received 109 Hides.

From Oregon we have received 10,343 quarter-sacks and 304 half-sacks of Flour; 1,971 centals of Wheat; 4,553 do of Oats; 2,900 cases of Salmon, and 416 Hides.

Barley.

Barley has gone up on account of the anticipation of a small crop next year. Receipts this week—10,744 centals—are slightly in excess of those of last week. The advance in price will probably be the cause of still heavier receipts. We note sales of 2,160 sacks of Brewery and Coast Feed at $1.25; 400 do at $1 27½; 1,500 do at $1.30; 1,600 do at $1.32½; 1,400 do at $1.32½ to $1.35; 2,000 do at $1.35; 1,200 do at $1.37½; 700 do at $1.40, and 2,000 do $1.50.

Flour.

There is but little movement in Flour, but as the mills have ceased production prices remain firm. Exports for the week aggregate 42 barrels, 362 half-sacks, and 400 quarter-sacks to New York, Panama, and Central America, by the "Arizona."

Hay.

The new Hay coming in is chiefly Wheat, but it does not sell well, as there is an impression abroad that it will not keep. New Hay is selling at $10 to $16 per ton, and old at $13 to $21. We note sales of 10 tons of inferior at $11.50 and 11 of common at $12.50.

Hops.

There is no change in local market to report. The latest New York circular says: "There has been a great improvement in Hops for export and they have been ruling pretty firmly. Probably 1,000 bales will be out this week. New are perhaps a little more active, but the demand for them is by no means strong. Prices quite firm."

Oats.

Receipts this week have been heavy, the last importation from Oregon being 4,553 sacks. Prices are nominal and trade is dull. We note sales of 700 sacks of Oregon at $2.10 to $2.20; 100 do Feed at $2.12½; 200 do at $2.15; and 400 do at $2.20.

Potatoes.

Potatoes still advance as the available stock grows smaller. Still receipts are large; those of last week being 7,132 centals. We note sales of 1700 sacks of Bodega at 95 c. to $1.15; 200 do of Humboldt at $1.25; and 200 do of new at $1.25.

Wheat.

This week we have had only 50 per cent. of the receipts that we had last week, the aggregate being 62,488 centals. The market has shaded off a little. The Liverpool price as sent to the Associated Press and the Merchants' Exchange has fallen 3½c., being to-day only $2.95@$2.97. Freights have fallen, being now only $16 per ton. We note sales of 500 sacks of common at $1.70; 1,525 do at $1.90; 30,000 do at $1.91¼; 30,000 do at $1.92½; 200 do at $1.95, and 1,500 do at $2.

Exports have been confined to the "Mattahorn," to Cork, with 41,172 centals, and the "John Tucker," to Cork, with 32,906 centals; making a total of cargoes of 74,078 centals, worth $189,000.

Wool.

The local market is active this week. There is a good demand for exports for all save inferior Wools, which are dull of sale. Stocks of that kind are accumulating. Sales include 836,000 pounds of Spring Wools at regular rates.

GENERAL MERCHANDISE.

Imports this week have been light, including the "Ernst," from Champerico, with 7,875 bags of Coffee; the "Montana," from New York, with the usual cargo; the "Nebraska," from Auckland, and the "Alhambra," from Hongkong, with an assorted cargo, including over 34,000 pounds of Rice.

Exports include the cargoes of two wheat ships, the "Matterhorn," to Mazatlan, with 79,172 pounds of Coffee and 56,803 pounds of Sugar; the "Letitia," to Honolulu, with Lumber; the "Loleta," to Mazatlan, with 3,148 pounds of Coffee, and 5,100 pounds of Sugar; and the "Arizona," to New York, Panama, etc., with the usual cargo, including 11,814 pounds of Wool to Liverpool. The total exports were valued at $254,161, and were carried in seven ships.

Bags are still dull. Coffee has advanced on account of the rise in prices in England, and short crops, and the large exports to Pacific ports and to the East. There is no change worth mentioning in Teas. Whole Pepper is scarce and is advancing. There is a brisk trade doing in Case Gooda. Peas are cheaper and are declining from 25 to 50 cents. Salmon is declining from 10 to 25 cents per dozen. Lumber is nominally at same prices, but retailers have made a reduction of from $3 to $5 per thousand on rough Lumber and from $2.50 to $5 on worked Lumber. There is to be a meeting to-night to try and arrange prices. Broom Corn has advanced on account of one firm having purchased all that there was in the market.

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M.	$20 00	Rough, ₱ M.	$25 00
Rough refuse, ₱ M.	16 00	Flooring and Step, ₱ M	37 50
Rough clear, ₱ M.	32 50	Flooring, narrow, ₱ M.	40 00
Rough clear refuse, M.	22 50	Flooring, 2d quality M.	30 00
Rustic, ₱ M.	35 00	Laths, ₱ M.	4 00
Rustic, refuse, ₱ M.	24 00	Furring, ₱ lineal ft.	1c
Surfaced, ₱ M.	32 50	Rough, ₱ M.	$25 00
Surfaced refuse, ₱ M.	22 50	Rough refuse, ₱ M.	20 00
Flooring, ₱ M.	30 00	**REDWOOD—Retail.**	
Flooring refuse, ₱ M.	20 00	Rough Pickets, ₱ M.	18 00
Beaded flooring, ₱ M.	32 50	Rough Pickets, p'd, M.	20 00
Beaded floor, refuse, M.	22 50	Fancy Pickets, ₱ M.	30 00
Half-inch Siding, M.	22 50	Siding, ₱ M.	27 50
Half-inch siding, ref, M.	16 00	Tongued and Grooved,	
Half-inch, Surfaced, M.	25 00	surfaced, ₱ M.	40 00
Half inch Surf, ref., M.	18 00	Do do refuse, ₱ M.	27 50
Half-inch Battens, M.	22 50	Half-inch surfaced, M.	40 00
Pickets, rough, ₱ M.	14 00	Rustic, ₱ M.	42 50
Pickets, rough, p'ntd.	16 00	Battens, ₱ lineal foot.	1
Pickets, fancy, p'ntd.	22 50	Shingles ₱ M.	3 50
Shingles, ₱ M.	3 00		

GENERAL MERCHANDISE.

BAGS.		**PAINTS.**	
Eng, stand. Wh't	14½@ 15	Atlan. W. Lead.	11½@ 12
Flour Sacks ½s.	13½@ 16	Whitening.	— @ 2
" " ¼s.	8½@ 9½	Chalk.	— @ 1
Sland. Gunnies..	17 @ 17½	Paris White.	— @ 3
" Wool Sacks.	60 @ 62	Ochre.	— @ 3
" Barley do...	16½@ —	Venetian Red.	— @ 3
Hessian 45-in.gds	12 @ —	Red Lead.	— @ 11
do 60	17 @ —	Litharge.	— @ 11
Burlaps, yard.	11 @ —	**RICE.**	
CANNED GOODS.		China No. 1, ₱ lb	7½@ —
Asst'd Pie Fruits		do 2, do.	7¼@ 7¼
in 2½ lb cans.	3 00 @ —	Japan.	7 @ 8
do Table do..	3 75 @ 4 —	Patna.	7 @ 7½
Jams & Jellies	4 — @ —	Hawaiian.	8 @ 9
Pickles ½ gl..	3 25 @ 3 50	**SALT.**	
COAL—Jobbing.		Cal. Bay, per ton.	5 00 @15—
Australian ₱ ton	14 — @15—	Carmen Island.	14 00 @30—
Coose & Bel. Bay.	8 50 @ —	Liverpool fine.	25 00 @26—
Seattle.	11 00 @ —	do coarse	19 00 @20—
Cumberl'd, cks.	26 00 @ —	**SOAP.**	
do bulk	22 50 @23—	Castile ₱ lb.	9½@ 11
Lehigh.	20 00 @ —	Local brands.	5½@ 7
Liverpool.	11 00 @12—	**SPICES.**	
West Hartley.	14 00 @16—	Allspice, per lb..	15½@ 16
Scotch.	12 00 @14—	Cloves.	27½@ 30
Scranton	17 00 @ —	Cassia.	30 @ —
Vancouver's Isl.	12 00 @14—	Nutmeg.	1 00 @ —
Charcoal, ₱ sk.	1 00 @ —	Whole Pepper.	— @ 27½
COFFEE.		Ground Allspice	25 @ 30
Costa Rica per lb	20 @ —	do Cassia.	45 @ 50
Guatemala.	20 @ —	do Cloves.	30 @ 35
Java.	— @ 23	do Mustard	30 @ 32½
Manilla.	19 @ —	do Ginger.	25 @ 30
Ground in cs.	27½@ —	do Pepper.	27½@ 38
Chicory.	8 @ —	do Mace.	1 30 @1 50
FISH.		do Coffee.	— @ —
Pac. Dry Cod, new	— @ —	**SUGAR, ETC.**	
cases.	8 @ 9	Cal. Cube per lb.	12¼@ —
Eastern Cod.	8½@ 9	Circle A crushed	12¼@ —
Salmon in bbls.	8 00 @ —	do granulated	11¾@ 12
do ½ lb cans	— @5 00	Golden C.	10 @ —
do 2½ lb cans	— @3 75	Hawaiian.	20 @ 22½
do 2 lb cans.	— @3 50	Cal. Syrup in bls.	52½@ —
do 1 lb cans.	— @2 —	do in ½ bls.	55 @ —
Pick. Cod, bbls.	— @ —	do in kegs.	60 @ —
do ½ bbls.	— @ —	**TEA.**	
Cal. Smoked.	— @ —	Oolong, Canton, lb	17 @ 25
Herr'g, hox.	50 @ —	do Amoy.	28 @ 50
Mack'l, No. 1, ½ bls	00 @ 9 50	do Formosa	40 @ 80
" Extra.	— @14 00	Imperial, Canton	25 @ 40
" in kits.	2 50 @ —	do Pingsuey	45 @ 80
" mess.	— @4 00	do Moyune.	60 @1 00
" ex. mess.	— @5 00	Gunpo'der, Cant.	30 @ 42½
NAILS.		do Pingsuey	50 @ 90
Assorted size, lb.	5¾@ 9 —	do Moyune.	65 @1 25
OILS.		Y'ng Hy., Canton	28 @ 40
Pacific Glue Co.		do Pingsuey	40 @ 70
Neat F't No. 1.	— @ —	do Moyune.	65 @ 85
Pure.	1 25 @ —	Japan, ½ chests, bulk.	30 @ 75
Castor Oil, No. 1	35 @1 40	Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
do do No. 2	25 @1 30	Japan do, 3 lb bxs	45 @ 90
Cocoa Nut.	10 @ —	do pl'n bx, 4½ lb	35 @ 65
Olive Plagniol.	5 00 @ —	do ¼ & 1 lb paper	30 @ 55
do Possel.	4 75 @ —	**TOBACCO—Jobbing.**	
Palm.	9 @ —	Bright Navys.	52½@ 60
do Bagicalupi.	— @ —	Dark do.	50 @ 55
Linseed.	1 05 @1 10	Dwarf Twist.	60 @ 65
China nut in cs.	75 @ 80	12 inch do.	60 @ 67½
Sperm, crude.	1 25 @ —	Light Pressed.	65 @ 75
do bleached.	1 90 @ —	Hard do.	60 @ 70
Coast Whales.	40 @ 45	Conn. Wrap'r.	40 @ 50
Polar, refined.	55 @ —	Penn. Wrapper.	35 @ 45
Lard.	95 @ —	Ohio do.	20 @ 40
Oleophine.	37½@ 40	Virgi'a Smok'g.	60 @ 95
Devoe's Bril't.	43 @ 45	Fine cut chewing, buc'ts. ₱ lb.	75 @ 90
Long Island.	37½@ 40	Banner fine cut.	9 25 @ —
Eureka.	37½@ 40	Enreka Cala.	8 50 @ —
Downer Kerose'e	50 @ 52½		
Gas Light Oil.	37½@ 40		

DOMESTIC PRODUCE.

At wholesale when not otherwise indicated.

WEDNESDAY M., May 21, 1873.

BEANS.		do Oregon	2 15 @2 25
Beans, sm'l wh. lb	5½@ 6½	Corn, White.	1 25 @1 30
do, butter.	5¾@ 6½	do, Yellow.	1 25 @1 30
do, large, do.	5½@ 6½	Buckwheat.	1 25 @1 50
do, bayo.	3½@ 3½	Rye.	2 25 @2 50
do, pink.	3½@ 4	**HOPS.**	
do, pea.	6½@ 7	California, 1871, lb	— @ —
BROOM CORN.		do 1872.	50 @ —
Per ton.	$62½@150	Eastern, 1872, lb.	62½@ —
DAIRY PRODUCE.		**MISCELLANEOUS.**	
Butter, Cal. fresh, lb	— @ —	Beeswax, per lb.	32 @ 35
do, ordin'y roll	25 @ —	Honey, choice.	10 @ 22½
do, choice.	30 @ 32½	Los Ang. Honey.	12½@ 30
do, new firkin.	— @ —	New Onions.	1¾@ 2
do, pickled	28 @ —	Flaxseed.	3 @ —
do, New York.	28 @ 30	Canary do.	4 @ 5
Cheese, Cal. new	13 @ 15	Mustard do, white	1½@ 2¼
do, Eastern	14 @ —	do, brown.	2 @ 3
Eggs, Cal. fresh	28 @ —	Alfalfa.	35 @ —
do, Oregon.	— @ —	Ky. Blue Grass.	50 @ —
do, Eastern	— @ —	Timothy.	35 @ —
FEED.		Italian Rye.	18 @ —
Bran per ton.	27 50 @ —	Perennial do	35 @ —
Middlings	30 00 @ —	**NUTS.**	
Hay	10 00 @21—	Peanuts per lb.	3 @ 5
Straw.	12 00 @ —	Chile Walnuts.	14 @ 15
Oil cake meal.	30 00 @ —	Pecan nuts.	16 @ 18
Corn Meal.	30 00 @50—	Hickory do.	10 @ —
FLOUR.		Brazil do.	16 @ —
Alviso Mills, bbl.	4 25 @6 00	Coc'anuts, ₱ 100	9 00 @ —
California.	4 25 @6 00	Alm'ds h'd shell	10 @ 12½
City Mills.	4 50 @6 00	do, soft.	20 @ 25
Commer'l Mills.	4 50 @6 00	**POTATOES.**	
Golden Gate.	4 50 @6 00	Sweet, per lb.	— @ —
Golden Age.	4 50 @6 00	Humboldt.	1 50@ —
National Mills.	4 50 @6 00	Monterey.	— @ —
SantaClaraMills	4 50 @6 00	Tomales.	1 12½@1 25
Genesee Mills.	4 50 @6 00	New.	1 75 @2 25
Oregon.	4 50 @6 00	**POULTRY & GAME.**	
Vallejo Star.	4 50 @6 00	Live Turkeys lb.	20 @ 22
Venus, Oakland.	4 50 @6 00	Hens, per dz.	6 00 @8 00
Stockton City.	4 50 @6 00	Roosters.	6 00 @8 00
Lombard. Sac'o.	4 50 @6 00	Broilers.	3 00 @5 50
FRESH MEAT.		Ducks, tame, doz	8 00 @8 50
Beef, fr quality. lb	7 @ —	Geese, per pair.	1 50 @2 00
do, second do.	6 @ —	Hare, per doz.	2 50 @3 00
do, third do.	2¾@ 5	Snipe, Eng., doz	2 50 @3 00
Veal.	6 @ 7	Rabbits.	1 50 @1 75
Mutton	6 @ 6½	Venison, per lb.	— @ —
Pork, undressed.	7 @ 7¾	**PROVISIONS.**	
do, dressed	9½@ 10	Cal. Bacon, per lb	— @ 13
GRAIN, ETC.		Eastern do.	12½@ —
Wh't Cal. o'st. cl.	1 85 @1 90	do sugared.	— @ —
do, shipping	1 87½@1 92½	Cal. Hams	— @ 14
do, milling.	1 90 @1 97½	Eastern do.	10 @ —
do, Oregon.	1 90 @1 92½	Cal. Smoked Beef	11 @ 12
Barley, Dark C'st'l	22½@1 25	**WOOL, ETC.**	
do, Light.	1 25 @1 35	Spring, short, lb.	16 @ 18
do, Brewing.	1 35 @1 50	do choice Nort	22 @ 22½
Oats, Coast.	2 00 @2 15	Burry.	12 @ 16
do, Light.	2 10 @2 25	Hides, dry.	17 @ —
do Omaha.	2 00 @2 05	do wet salted	8½@ 9
		Tallow	6½@ —

FRUIT MARKET.

There are no Apples and but very few Pears in the market. Tahiti Oranges are scarce, and all Oranges have advanced in consequence. Limes and Pineapples are in plentiful supply, and have declined in value. Cherries flood the market. Apricots and Currants are in.

FRUIT MARKET.			
Tahiti, Or. ₱ 1000	40 —@ —	Peaches, ₱ lb.	10 @12½
Cal. do.	— —@60 00	Apricots, ₱ lb.	— @—
Limes, ₱ M.	— —@ 0 00	Plums, ₱ lb.	5 @10
Cal. Lemons, 1000.	40 00@50 —	Pitted, do ₱ lb.	15 @20
Bananas, ₱ bunch	2 50@ 4 00	Raisins, ₱ lb.	8 @12
Pineapples, ₱ dz	4 50@ 9 —	Black Figs, ₱ lb.	20 @15
Apples, cat'g, bx.	— @ —	White, do.	15 @20
Cherries.	10 @ 40	**VEGETABLES.**	
Strawberries.	6 @ 8	Cabbage, ₱ dz.	50 @75
Gooseberries.	6 @ 7	Garlic, ₱ lb.	6 @ 8
Currants.	15 @ —	Green Peas.	3 @ 4
Apricots.	15 @ —	Green Corn ₱ doz.	50 @—
Pears, Eating.	— @ —	Marrowfat Squash per ton.	50@—
Pomegran's, ₱ 100	— @ —	Artichokes, ₱ lb.	2 @—
Grapes, Mission.	— @ —	String Beans, ₱ lb.	6 @ 7
Rose of Peru.	— @ —	Lima Beans.	6 @ 8
Blk Hamburg	— @ —	Peppers dry.	25 @—
DRIED FRUIT.		Okra.	30 @35
Apples, ₱ lb.	8 @ 9	Cucumbers, dz.	1 50 @2 00
Pears, ₱ lb.	6 @ 9		

WE WILL CHANGE THE ADDRESS FREE for any subscriber who notifies us in writing of his new address, with the OLD P. O. address to enable us to find his name among thousands of others.

Leather Market Report.

[Reported for the PRESS by Dollfver & Bro.]

SAN FRANCISCO, Wednesday, May 21, 1873.

The demand for Domestic Skins and Sole Leather continues light at old prices. The same may be said in reference to French Skins, except that they have an upward tendency.

City Tanned Leather, ₱ lb.	26@29
Santa Cruz Leather, ₱ lb.	28@29
Country Leather, ₱ lb.	25@28
Stockton Leather, ₱ lb.	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz.	85 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz.	55 00@ 70 00
Levin, 12 and 13 Kil., per doz.	68 00@ 70 00
Cornellian, 12 to 16 Ko.	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil.	66 00@ 72 00
Beaumerville, 15 Kil.	60 00@ — —
Ogeran Calf, ₱ doz.	54 00@ — —
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz.	65 00@ 67 00
Simon, 24 Kil. ₱ doz.	72 00@ 74 00
Robert Calf, 7 and 9 Kil.	35 00@ 40 00
French Kips, ₱ lb.	1 00@ 1 30
California Kip, ₱ doz.	50 00 to 60 00
French Sheep, all colors, ₱ doz.	8 00@ 15 00
Eastern Calf for Backs, ₱ lb.	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz.	9 00@ 13 00
Sheep Roans for Linings, ₱ doz.	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25@ — —
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00@ — —
Harness Leather, ₱ lb.	30@ 37½
Fair Bridle Leather, ₱ doz.	48 00@ 72 00
Skirting Leather, ₱ lb.	34@ 37½
Welt Leather, ₱ doz.	30 00@ 50 00
Buff Leather, ₱ foot.	21@ 25
Wax Side Leather, ₱ foot.	17@ 19
Eastern Wax Leather	26

San Francisco Metal Market.

WEDNESDAY, May 21, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton.	$60 00	@	— —
White Pig, ₱ ton.	60 00	@	— —
Refined Bar, bad assortment, ₱ lb.	—	@	— 06
Refined Bar, good assortment, ₱ lb.	—	@	— 06¼
Boiler, No. 1 to 4.	—	05½@	— 06
Plate, No. 5 to 9.	—	06¾@	— 07
Sheet, No. 10 to 13.	—	07½@	— —
Sheet, No. 14 to 20.	—	08 @	— 08½
Sheet, No. 24 to 27.	—	08 @	— 09
Horse Shoes, per keg.	9 00	@	
Nail Rod.		11 @	
Norway Iron.		9	
Rolled Iron.		6½	
Other Irons for Blacksmiths, Miners, etc.		6½@	9½
COPPER.—			
Braziers.	—	35 @	— 38
Copper Tin'd.	—	50 @	— —
O. Nie'l's Pat.	—	55 @	— —
Sheathing, ₱ lb.	—	— @	— 29
Sheathing, Yellow.	—	28 @	— 29
Sheathing, Old Yellow.	—	— @	— 12½
Composition Nails.	—	29	— 30
Composition Bolts.	—	29	— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box.	14 50	@	15 —
Plates, I C Charcoal	13 50		14 —
Roofing Plates.	13 00		13 50
Banca Tin, Slabs, ₱ lb.	— 40		— 42½
STEEL.—English Cast, ₱ lb.	— 20		— 25
Drill.	20		— —
Flat Bar.	22		— —
Plough Points.	16		— 17
Russia (for mould boards).	17		18
ZINC.	9¼		10
Zinc, Sheet.	— 9		— 10
NAILS—Assorted sizes.	— 5½	@	— 9

San Francisco Retail Market Rates.

WEDNESDAY NOON, May 21, 1873.

FRUITS, VEGETABLES, ETC.

Apples and Pears are about out. There are a few currants coming in. Cherries will not be very plentiful. There is a good supply now in and of good varieties. Green Corn came in again yesterday in limited quality. Tomatoes are also in. There is a good supply of nearly all fruits and vegetables.

Apples, pr lb.	—	@	12½	Celery, ₱ doz.	75 @ —
Pears, per lb.	—	@	12½	Quonmbers, ea.	12½@ 25
Apricots, lb.	25	@	—	Tomatoes, ₱ lb.	75 @ —
Pine Apples, each	50	@1	00	Green Peas.	5 @ 6
Bananas, ₱ doz.	50	@1	00	String Beans.	10 @ 12½
Canteleups.	—	@	—	Cress, ₱ doz bun	20 @ —
Watermelons.	—	@	—	Dried Herbs, lb.	25 @ 35
C

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reeper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Pateut **double motion**, by which (simply ou moving a lever at the hand of the driver, either a **fast** or **slow speed** may be giveu the knives or sickles in a momeut, and without in the least disturuing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA
Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons,
Freight Wagons, and
Header Wagons.

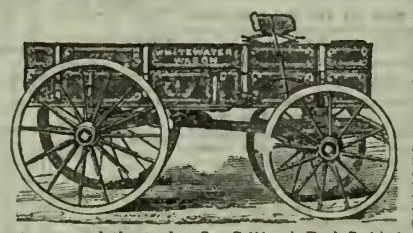
SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,
15v5-3m Sacramento and San Francisco.

THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3⅓ inch, $110; 3½ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This esse of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be **a good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufecturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, WIS.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adepted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep fellows, wide and heavy tires SHRUNK ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO.,** San Francisco, General Agents for the Pacific States. 14v5tf



TUSTIN'S PATENT
FIRST PREMIUM WINDMILLS

ARE THE MOST POPULAR
Of any on the Pacific Coast.

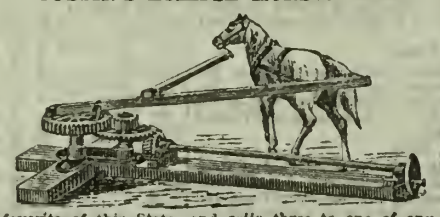
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Eureka.





Economy.

Is now the favorite of this State, and sells three to one of any other make.

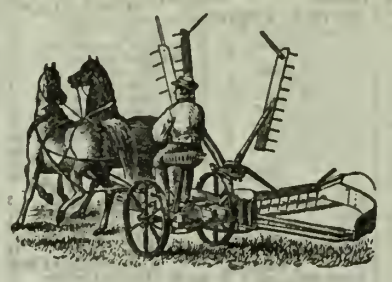
☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the **Golden State Windmill,** which is an infringement on the **Celebrated "Eureka" Windmill,** for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

MANUFACTORY, corner of Market and Beale streets.....SAN FRANCISCO.

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For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,
BUCKEYE REAPER,
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HAINES' GENUINE HEADER,

VIBRATOR SEPARATOR
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Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

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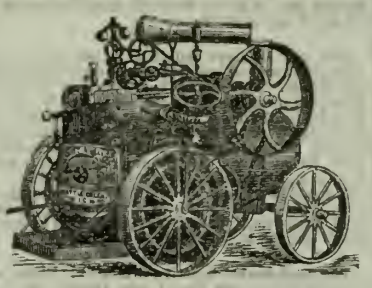
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EXTRA PARTS for repairing Harvesting Machinery.

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AGENTS FOR
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And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

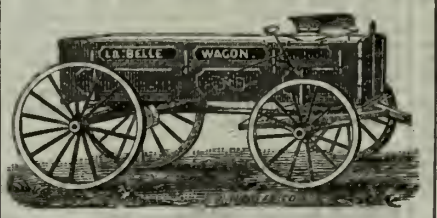
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The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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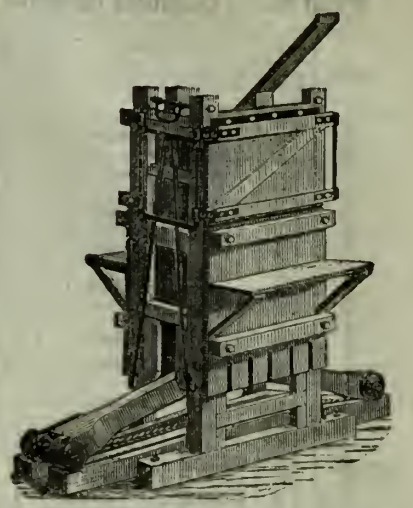
AGENCY FOR THE SALE OF THE
LA BELLE WAGON,



Made by FARNSWORTH BROS. KNAPP & CO., Fond du Lac, Wis. These Wagons are made of the BEST TIMBER, thoroughly seasoned in a dry-house; the Felloes are boiled in oil and rivited. Special care is taken to get up a Wagon well proportioned, strongly ironed, nicely painted, expressly adapted to the climate of California, and one that will give entire satisfaction to the purchaser, and justify him in recommending it to others. We warrant them to stand any fair usage for one year, without expense to the buyer. Orders from the country will receive prompt attention. Wagons delivered free of expense in this city. A liberal discount will be made to Wagon-makers, Merchants and others who buy to sell. Price Lists sent on application.

MEEKER, JAMES & CO.,
S. E. Cor. California and Davis streets, San Francisco.

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable **EAGLE HAY PRESS,** the invention of J. A. McGillivral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of beating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 650 pounds. Reference, Maj. Rob't Beck.

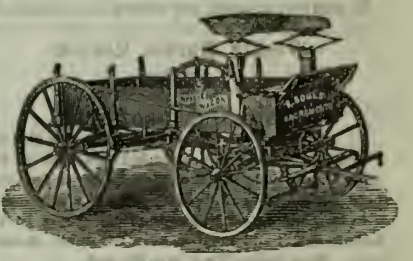
We have added to this Press this season an improvement (patented) which does the stamping, dispensing with men to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

Who are the Proprietors on the Pacific Coast, and will endeavor to have a supply constantly on hand.

12v5-2m3m-2ts



FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E SOULE.
ap22-3m San Quentin, Cal.

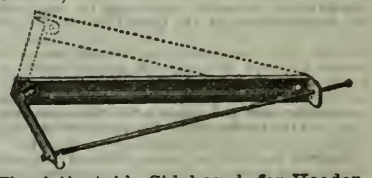
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The Latest and Best in the Country.

HAS A DOUBLE MOTION,
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TREADWELL & CO.,
Sole Agents Pacific States San Francisco.
Old Stand, Market, head of Front Street. f22-3m

Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.

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JAS. T. ISH, Proprietor. 13v5eow tf

$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

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SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

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Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

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The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

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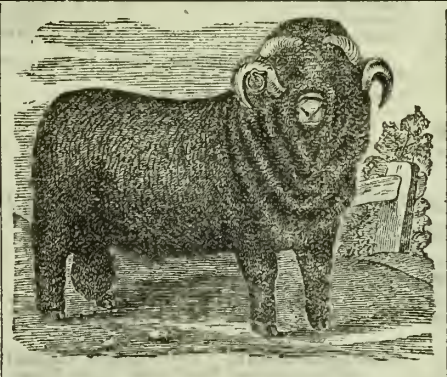
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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, MAY 31, 1873. [Number 22.

The Lovegrove. (*Nemophila insignis.*)

BY RALPH RAMBLER.

We present our readers, with an engraving of one of the earliest of our floral visitors —the familiar Lovegrove.

What daisies, violets, crocuses, anemones, and liverworts are to other countries, the Lovegroves are to the inland valleys of California. They are the first wild flowers on our plains to unfold their beauties to the sun, as the harbingers of smiling Spring. The buttercup alone (*ranunculus*) in our river bottoms precedes them by a few days.

How children love them, and welcome their first appearance! Not many days ago, the writer was driving through our valley, when he overtook a party of five little boys and girls, tripping along the roadside, their faces beaming with health and happiness. "Good morning," children," said we, "which way are you traveling?" "We are looking for flowers," promptly answered one of the smallest of the boys, his bright face the very picture of childish gratification. And so they were. Their dimpled hands were grasping dense bunches of blue flowers, as though they were so many new-found treasures. These treasures were only Lovegroves. No other flowers were blooming, though they were beginning to be abundant. The re-appearance of their bright blue blossoms had filled these innocent hearts with perfect joy. Surely we older ones should admire all such beautiful wild flowers—should, at least, give them a passing thought, if for no other reason than the happiness they bring our children, and the gentleness they naturally instill into their hearts.

The Lovegrove is peculiar to North America. Two species only are found in the Eastern and Southern States. They have small white or blue flowers. All the most beautiful species are natives of California, where we have four kinds, their flowers varying from a half inch to more than an inch in diameter. All have their corollas or flowers divided into five lobes, which are so deeply cleft in some species as to have the appearance of separate petals. These plants vary in hight from a few inches to a foot and more. They continue blooming through spring and the early part of summer. Sometimes they open by the middle of January, sometimes in February, and occasionally, in late springs, like the present, not until the 1st of March. Botanists have named the largest species *Nemophila insignis*, or Showy Lovegrove. Its flowers are a deep sky-blne on the outer edge, the center white and delicately penciled with purple dots. Another is *N. Atomaria*, or Speckled Lovegrove. Its flowers are small, of a bluish white, dotted with chocolate-colored spots. *N. aurita*, or Ear-leaved Lovegrove, has small, purple, bell-shaped flowers. The flowers of *N. Maculata*, or Spotted Lovegrove, are white, with a large violet spot on the outer edge of each of their five lobes. These were first introduced into England as ornamental plants some forty years ago.

The two first mentioned are our common varieties. The first, which is the one figured by our artist, has the largest flowers and a very agreeable odor. It is much the most abundant, and is the most general favorite. Its flowers frequently expand more than an inch, and when fully expanded are quite flat and wheel-shaped, but when partly open they resemble a bell, and hence a name very common for it among California children is is Blue-Bells. Lovegrove is only a literal translation of its systematic name, which is from two Greek words meaning *to love a grove*, and refers to the habit of the plant in the States East of the Rocky mountains, where it is most thrifty in the shade. On our plains, it entirely loses this peculiarity, as it finds no trees to shelter it. So its botanical name is here no longer appropriate. This shows how even plants, like men, can adapt themselves to circumstances. Here they flourish in the greatest profusion on the bare plains.

In speaking of the Lovegrove as one of our first spring flowers, we said it is to the inland valleys of California what violets are to other countries. We might also have said, what one species of violet is to a part of California. For one of the earliest flowers with any pretensions to beauty in the low foothills of the Sierras, along the Merced and the Chowchilla rivers, for instance, is a very handsome yellow violet, with finely divided leaves. In size and shape it is almost a *fac simile* of the comon Heart's-ease. Indeed, its general appearance is so much like the latter, which is a native violet of Great Britain, that we may with propriety call our early spring violet the California heart's-ease. But the inner surface of the five petals is a bright yellow, with a purple spot at the base, while the outer surface of its two upper petals is of a royal purple.

San Joaquin Valley, March, 1873.

—*Illustrated Press.*

Malva Culture.

We have another inquiry from a correspondent about the malva as a forage plant and whether seeds can be procured in San Francisco, and whether the season is too far advanced to plant with a certainty of growth the present summer? He further remarks that: "I have frequently remarked with what avidity animals consume the foliage of the malva, whenever they have access to it; but it never occurred to me to grow this exceedingly hardy, broad-leaved shrub as forage. Cattle will always—to use a common saying—'if they can steal it' —reach over a fence and feed upon almost any description of plant or tree; but turn them into a field of the same trees and they will soon discard them."



THE LOVEGROVE. (*Nemophila insignis.*)

Seed of the malva can be procured of seedsmen in this city, and it is not too late to plant, if the soil is moist enough for the seeds to germinate; but we should prefer to put off the planting till another season and then plant in January or February. We have known instances of animals eating the last leaf upon the malva plant where other feed was short, and from what others say who have tried it, animals continue to be fond of it throughout the year.

We are of the opinion that perhaps something of good to the interest of the California stock grower on a scale not too extensive, may grow out of the introduction of the malva as a forage plant, in some localities and under certain conditions. We can easily suppose a case, where a family, situated perhaps in the vicinity of a city, with a few acres of land, and keeping one or two cows, and the soil so dry and hard that even the natural grasses dry up in early June, and too dry for the culture of alfalfa, or perhaps no one to cut the alfalfa if grown, with which to feed the cow daily, that there, an acre or two of malva might be grown for forage, with convenience and profit.

The roots of the malva penetrate the ground deeply as other trees do, and will grow where ordinary clovers will starve or dry up. The malva is ever green in our climate; its leaves are greedily eaten by animals; its habit of growth is low and spreading, which habit could be increased by cutting back the leading top shoots. A field of the malva planted just close enough that when three or four years old would nicely cover the ground, or present mere paths of open space among them for animals to range in, would be a beautiful sight in itself, and we are not at all certain but it might prove a profitable investment. What the effect of denuding the malva of its leaves at certain or all seasons of the year would be, is a question that experiment would soon solve. Who will try an acre of malva with the view of testing its value as a forage plant?

Bee Keeping.

Why is it that many of the dwellers in our valley towns and mountain villages, are not bee keepers? The best California honey in the comb brings readily twenty-five cents a pound; and in no other country are bees as profitable as regards their increase as in California. It is nothing unusual with proper management to obtain from 3 to 6 hives from one, in a single season, by using the Harbison or Langstroth hive, and in no other country is there such a diversity of excellent food for bees as here.

We have never heard of a single instance of ill success in the keeping of bees in any part of this State or Oregon, where anything like ordinary care was bestowed upon their culture. It is not so difficult to manage them as the uninitiated suppose. Any one with a half hour's explanation, from an experienced apiarist, can obtain all the information necessary to the successful management of bees.

True there is always something to learn, and it is not to be supposed that a person of no practical experience, will, in all that pertains to succesful bee management, be as skillful at first, as one who has made it a study for years; but what we want to impress upon our readers is, that there is nothing really difficult, no mystery connected with the successful management of honey bees and that no farm stock pays larger dividends. Why in all parts of California where bees have been kept in the vicinity of timbered land, where hollow trees are found, not only the trees but the holes and crevices of rocks already abound with wild bees; thus it would seem that without any care at all, from the hand of man, bees can take care of themselves, laying up annually luxurious and abundant stores of honey.

Flour Mills.

The Golden Gate Flouring Mills make 500 barrels of flour per diem. Their capacity is about to be doubled. Warsops's aero-steam system is being introduced, which claims to save twenty per cent. of fuel; also to prevent scaling.

When the Golden Gate turns out 1,000 barrels a day, it may claim to be the largest flour mill in the United States. But Europe beats this manifold. At Pesth, in Hungary, there is a flour-mill that makes 8,000 sacks full every day. Each sack is 280 lbs.—equal to 1,100 barrels. This mill is said to make flour of higher market value than other mills. The wheat is not ground between stones, but between rollers. In this way heating is avoided; more bread is made, and constipated bowels are relieved.

LODGED GRAIN.—A correspondent asks if there is any devise for raising or lifting lodged grain. We would refer the writer to the advertisement of O. Bonney of No. 221 Mission Street, S. F. for a devise said to be excellent for the purpose. If there are others, they are not at present advertised with us. For cutting lodged grain perhaps there is nothing better than Dubois' Mower Attachment, illustrated on our ninth page this week.

CORRESPONDENCE.

Immunity from Frost.

EDITORS RURAL PRESS:—The flattering notice you bestowed upou my letter, regarding Alfalfa, indnces me to test your patience one more, this time I will condense some information I have gathered regarding the culture of vines. I am not a viuiculturist, but as I travel through life, I use hoth eyes and ears, iu acquiring information regarding matters of interest to Californians; of these, noue are of more importance than the

Culture of Vines.

I shall say nothing with regard to the different varieties or ahout methods of planting and cultivation, as it is easy to get information on these subjects, and vines are generally productive, under all systems of culture, provided they escape frosts, and diseases; and shall give you my reasons why I think that I have discovered a method of avoiding all danger from frosts; the same remedy I think will prevent all danger from mildew, but I am not certain of the latter, as we are not troubled with mildew in this part of California.

How to Avoid Risk from Frost.

The frost of the 4th and 5th of last month (April) were said to be the most severe ever felt at that seasou in this part of the State. The thermometer on the morning of the 5th, at Anaheim, was down to 28° Fahrenheit, which is the lowest point it has reached at any time during the past three wiuters, and then ou not more than five or six occasions. Therefore it is safe to couclnde that anything which escaped injury, on this occasion, might be considered safe in the future.

Previous frosts have been partial, affecting only certain vineyards and parts of vineyards, and no facts were developed upon which to base a theory; but this was general, no vineyard escaped, hut some was much more seriously affected than others. A close and earnest investigation developed the following facts:

The vineyards protected by thick hedges of trees were the most severely frosted, aud "per contra" those more open to a free circulation of air, were the least severely frosted, those near buildings or planted among fruit trees, (trimmed up so as not to prevent a free circulation of air) entirely escaped.

The Anaheim vineyards for greater convenience of cultivation are traiued low, rarely raising more than two feet above ground; this I am certain is a mistake, for I have long observed, *that the closer to the ground*, the greater the damage from frost. In proof of this I noticed that vines trained upon trellises, in the open vineyard, to a hight of from four to six feet, entirely escaped, whilst the surrounding vines trained low as usual were all badly frosted; with the exception of the difference in elevation the conditions were exactly the same; there were several instances of this with in all cases the same result.

The frost was mnch less severe on the mesa or table lands, which is owing to the elevation; the low-lying lands are always the worse frosted.

My young tomato plants growing iu boxes raised three feet from the ground, were scarcely touched and not materially injured, proving a wise foresight in raising them up; the volunteer plants growing on the ground were killed.

The Mission priests were probably aware of this fact for they, so far as I have seen, invariably trained their vines from three to four feet high. They were very intelligent observers, and rarely did anything without being able to give a good reason for it.

In one instance a small plot of low-trained vines that were pruned very late escaped without material injury, but late pruning is objectionable on account of bleeding, which weakens the vine, and if a very late frost occurs will do no better than early prnning, besides the wiuds start early and the vineyards must be plowed, which cannot be done until pruned.

The facts I have stated seem to indicate clearly that high training is an effectual security against frosts, let them come early or late, and in this case early pruning seems to he no objection.

I would advise training on trellises to the hight of about six feet; by so doing I am certain that double the ordinary crop of grapes can be raised from the same vines, and the only difference iu cultivation is more hoeing and less plowing. Any regularly planted vineyard can be trellised one way, at an expense of abont $50 per acre, viz.

Insert 2½-inch redwood pickets 7 feet long into the gronnd 12 to 15 inches, in the intervals between the vines in the row, and fasten to these pickets three split, redwood slats, with composition or galvanized iron nails, aud to this train two strong canes from each vine. After the first season all trouble will he at an end. At this place the cost for lumber, etc., would make the expense about fifty dollars per acre, but as it would double the crop of grapes the excess of the first crop would repay the outlay. And during succeeding seasons the current expenses would not be materially increased, whilst if my theory is correct, all danger from frost would be removed. If the observatious and experience of other persons are at variance with mine, I hope they will make them public, as my only object is to elicit truth; a free discnssion is the proper way to get at it; if on the contrary the observations of others confirm mine, then so far as frosts are concerned, by adopting the high traning system, grape growing can be reduced to a mathematical certainty. WM. R. OLDEN.

Anaheim, May 11th, 1873.

P. S. Our vineyards are in full foliage again, hut it will he two or three weeks before the crop can he estimated, as the new shoots are not yet in bloom.

No fruit trees were injnred, nor anything else except some of the early sown rye, which happened to he in bloom, but the rye crop promises to be large; corn is looking well and indications are favorable for a large crop.

Barley is hardly an average, having been injured by the dry north wind preceeeding the frosts, which also injured the grass crop on the hills, but of coursre did not hurt our natural pastnres, nothing cau effect them.

Breeding for Length of Staple.

EDITORS RURAL PRESS:—Yonr correspondent, J. H. F., desires to retain the thickness and increase the length of staple of his grade Merinos, and desires some information and advice on the suhject. I have no experience in the matter, hut from ohservation and reading I shonld judge that he would hest attain his end hy crossing his ewes with a "thoroughbred Leicester," and with nothing but a "thoronghbred." He will find his lambs considerably increased in size, and their wool much longer, and probably as fine as at present. The difficulty is what to cross into the lambs, when they come of a breeding age. A halfbreed Leicester aud Merino would not do, as it is generally conceded that a "grade" will not stamp his qualities, except it he on an animal very inferior to himself. I think the best method would he for him to continue to cross thoronghbred Leicesters for two or three generations, and theu fall hack again on the "thoroughbred Merino," to prevent the wool from becoming too light. I am not an advocate of crossing long and fine wools; I believe there is demand enough for both sorts; to-day long wool is up; to-morrow will he the fine wool's turn. I would therefore advise J. H. F. to keep to the Merinos, or to go on crossing with the long-wool bucks until they are equal to thoroughbreds, and stick by them. The cross with the Shropshire Down I consider injudicious, as this breed, as well as the Oxford and Sonthdown, is neither a long nor a fine-wool sheep, but is classed as a "Middle Wool." Had J. H. F.'s sheep, however, been thoroughbred Merinos, instead of grades, I do not doubt that the cross would have been very apparent, even to snch a "novice," as he claims to be.

As Leicesters, *i. e.* thoroughbreds, are very scarce in this State, I extract the following from the *National Live Stock Journal*, hoping it will save J. H. F. from having a "grade" passed off on him:

"The Leicesters are usually placed at the head of long-wool breeds, as heing the finest in form and fleece, and also bscause it has been largsly used in crossing, for the improvement of the othsr varieties.

The head is hornless and rathsr long and narrow; ears slim, with spots of bluish tings. The long, well-cut sar of the purs Leicester, with its sprightly, backward inclination, is a distinguishing characteristic of the brsed, as is also the full, prominent eye, with quiet and lively expression. The face and forehead must hs bare of wool, though covered with a fins coat of hair—white, with a little inclination to the bluish tint.

"The hody is straight, with ribs well sprung and barrel-shaped, the pelt inclined to bs thin; the wool exceedingly soft, fins, and lustrous, and should bs uniform over the carcass.

The extrsmities—muzzls and legs—are excsedingly fine, hut the quarters are full and wids, with back broad and level. Indeed, the carcass of the trus Leicester sheep is as near perfection in form as can be conceived possible." Yours, MERINO.

A Question for Potato Growers.

ENS. RURAL:—From which of these two fields would it be advisable to obtain seed? one has been planted continuously with potatoes for five years, with occasionally chauge of seed, the other has been cropped for ten years, alternately with potatoes and barley. Both are alluvium bottom lands, and hoth planted this season with seed from Humholdt. If seed from each was transferred to the black hill land, would there be any difference iu the yield? If so what difference and why? An answer would oblige G. W. T. C.

San Gregorio, May 20, 1873.

We give the above a place in our columns, because we like to oblige as far as possihle those who make agricultnral inquiries of us; but in this instance, it will be quite impossible for us, or indeed any one we think, to answer with certainty.

It is a maxim pertaining to vegetable growth, that any particular variety of crop exhausts the soil of properties peculiar to itself, and if long continued on the same soil, that the quality of the crop will deteriorate. In the present instance both fields have produced five crops of potatoes, but under different circumstances as to time; but in either case, if upon strong alluvinm, not long enough to affect materially the quality or quantity of the crop.

We might, perhaps, prefer seed from the field where barley had alternated with potatoes, hnt should not expect any great difference in the resulting yield.

"Juristac" or 'La Brea" Ranch.

EDS. PRESS:—California has often been termed "the garden of the world." That she is well worthy of such high eulogy could he doubted by none who have visited the "La Brea" ranch, situated some six miles heyond Gilroy. It enjoys exemption from the extreme heat often felt in that neighborhood, and its eleven thousand acres teem with mineral and agricultural riches. The ranch belongs to the Sargeant Brothers, who also possess two other ranches in other parts of the State. The "La Brea" is well known to all as the ahode of the hospitable and energetic Jim Sargeant, the fame of whose Angora goats has reached all who take au interest in stock raising. As it will no donht be interesting to the readers of the RURAL PRESS, I forward yon a short account of what I saw during my stay on the ranch.

A large dairy husiness is carried on under the management of Messrs. J. C. Roach and M. Nixon, Mr. Sargeant having one-third of the profits and all the calves. Three hundred cows are at present in milking order, and notwithstanding their 280 calves, give sufficient milk to make 100,000 pounds of cheese during the summer months, and uo inconsiderable amount of butter during the remainder of the year. Each cheese is marked "Brea Dairy," and has no mean reputation in the market. To those interested in cheese making, the patent self presses, invented by Mr. Roach, are well worthy of examination. The cows are highly graded, the bulls being all from the famous herd of Col. Younger, of San José, but in spite of Mr. Sargeant's high opinion of the short horn breed, he has adopted an expedient, to which he owes, no doubt, the large quantity and good quality of the milk he raises, namely, an occasional cross with a pure bred Devon bull.

A look at the handsome Patchen stallion, "Juristac," at once assures the visitor that the horses have been as carefully bred as the other stock. "Juristac" is a handsome hright hay, with black points, eight years old, by G. M. Patchen, Jr., out of a "Glencoe" mare, very quiet and docile. Mr. Sargeant has eighty colts hy him out of "Jack Hawkins'" mares, ruuning at the Stockton ranch, where also is the Patchen stalliou, "Budd Doble," fifty of whose colts I saw at "La Brea," and a better lot of movers it has seldom been my lot to see. There are also about thirty brood mares on the ranch, all well bred and good looking. Among theiu was the noted "Bluedale" who heat "Lex" the same day that "Norfolk" beat "Lodi." The old mare looks well and has thrown some fiue colts.

Angora Goats,

Which under Mr. Sargeants care are rapidly growing into a large flock, are well worthy of inspection. Two uses are made of their fleece, the inner and finer part being devoted to the manufacture of cashmere shawls, the coarser, called "mohair," being employed in the manufacture of stuffs for ladies' dresses. At present there are only two or three manufactories extant for the use of mohair, but its good qualities for taking coloring matter aud flexibility, are becoming gradually known to the public, and it is highly probable that the exportation of the hair of the Angora goat will become one of the important items in Southern California industry, where climate and soil both appear adapted for raising them. Mr. Sargeant has also some very fine pure bred

Spanish Merino Bucks,

and in time will no doubt have a fine flock of graded Merinos, for the pasturage of which his ranch is particularly adapted. Space will not allow me to enter fully into the question of minerals, but will state in conclusion that asphaltum is largely found, as the name "La Brea" signifies in Spanish. A vein of coal is also visible, cropping out on the bank of the creek, no doubt leading to larger deposits, as coal has already heen found in considerahle quantities on the opposite hills on Miller's ranch. There is also a marble lime-rock quarry, from which the lime required for the building of San Juau Mission was taken, and which, for all that is known at present, may prove of great valne. Nature's medieines are also ahundant in the shape of a snlphur and seltzer water spring, although to judge from the climate, such a thing as medicine could hardly be needed. When this State is thickly populated, and the varied wealth of such a ranch be thoronghly understood and appreciated, the public will have cause to thank such meu as James Sargeant, whose present efforts do so much for future prosperity. GEORGE MARTIN.

The Gopher Nuisance.

EDITORS RURAL PRESS:—Is there any one of your readers or correspondents who know of any method to destroy or frighten off that pest of our mountain gardens, "the gopher." If so will they give us the benefit of their knowledge.

It takes about one-third of the "truck" in a kitchen gardeu to feed these undergronnd nuisances, aud if there was some way to get rid of them, it "were a consummatiou devoutly to be wished?" P.

Shingle Springs, May 19th, 1873.

We can poison and to some extent abate the ground squirrel nuisance; but how can we dispose of the gopher? That is what our correspondent wants to kuow. Who will answer first?

M. S. Brittan's Sale.

ENS. PRESS:—On Saturday, the 10th inst., a large stock sale was held at the ranch of M. S. Brittan, in the immediate vicinity of Redwood City. Mr. Brittan is well known as a raiser of trotting stock, his Hambletonian stallion, "Don Juan," having taken several premiums at the Bay District Agricultural Fairs; but perhaps Mr. Brittan is best known as an importer and breeder of Clydesdale horses, in which class his yonng stallion, "Pool," has carried all before him wherever shown. Messrs. Killip & Co., the auctioueers, in company with a large number of horse and cattle buyers, left for the ranch hy the early train from Market street station, reaching their destination shortly after ten o'clock A. M.; after partaking of a hearty lnnch, the husiness of the day commenced by the sale of a few lots of fine dairy cows, which realized an average of $27.50 per head. A good looking roan heifer, of pure short-horn Durham breed, was, after a lively contest knocked down to Judge Ely for $150.

The horses were next offered for sale, but whether from fear of the epizootic or from the lightness of the money market, the bidding was very slow; many of the best animals were honght in, while several, including all the yearlings and the thoronghbred mare "Ida Martin" hy Rifleman, with a colt by "Don Jann" running by her side were withdrawn from the sale. The following are some of the prices quoted at the fall of the hammer—"Ada Morris" a sorrel filly by Whipple's "Hambletonian" dam, "Kate Leslie" and therefore full sister to "Don Juan" and "California Dexter." This highly hred and promising mare was bought by Harris Covey late of the Turf Gallery stables, for $1,025, "KittyWilder," bay filly "Alexander" and of "Lady Peters" $475. The yearling stallion, "Judge Templeton," sired by the Clydesdale stalliou "Emperor," dam Clydesdale mare "Jessie," imported from Australia by H. W. Seale, $425. "Lizzy," bay filly, by Whipples Hambletonian dam "Ida Martin" $600, 'Gipsey" a hay filly by "Emperor" $325; hay colt by "Royal Clyde" $200. "Susie" $245; "Oregon Molly" $250. Many more of the youngsters averaged $250, though few perhaps reached their real value. The old mare "Kate Leslie" by "Grey Messenger," the mother of "Don Juan," "Californiaa Dexter," aud many other good ones was bought in at $400. Those present again enjoyed Mr. Brittan's hospitality before leaving by the special train which awaited them for the city.

We hope this sale of surplus stock has answered Mr. Brittan's expectation; his next sale no donht, the public having once heen let into the secret of the excellence of the stock raised on his ranch, will be still more numerously attended, and Mr. Brittan will reap the reward due to him for his exertion to improve the hreed of trotting and draft horses in this State. G. M.

The Crazy Disease of Horses.

EDITORS PRESS:—In reply to your correspondent of Bear Valley, May 2d, concerning a strange horse disease, I will state, that two years ago last October, I lost a valnable horse, the symptoms of his disease being substantially the same as detailed by your correspondent. In this section of the conntry it is admitted that the disease is brought on by horses eating rattle weed, hence, a horse affected is called rattleweeded. Some horses affected partially recover, bnt never fully; others wander off and eventually die. In some cases the horse recovers sufficiently to perform his usual labor; others becoming insane to such an extent as to he unfit for service, but still live and thrive for a nnmber of years.

People generally let the disease run its own course; but my remedy was to pour cold water on the head, taking good care of the horse, feeding scalded barley with chopped hay and hran all wet up together with plenty of salt, keeping the howels loose with castoroil, and giving occasionally a slice of fat pork. The result was, I cured my horse of rattleweed, and he got as sensible as ever, and became hearty and in a thriving condition, and to all appearances was well; hut in a short time he took the lung fever and died in spite of all I conld do, the disease culminating in hemorrhage of the lungs. Now I am perfectly satisfied that the strange disease of your correspondent's horses was cansed hy rattleweed, and the remedy that I applied proved effectual with my horse. The remedy is worthy of a trial.

OCCASIONAL.

Paradise Valley, May 19th.

Horse Craziness.

EDS. RURAL PRESS:—In your valnable paper of May 17th I see au inquiry from Bear Valley concerning a remedy for the "crazy disease." As bad a case as we ever had in this neighborhood was treated for this same crazy disease, thus: Put sweet oil in the ears and in the socket over the eyes; satnrate a small bit of cotton (what the ear will hold well) with oil also; put the cottou iu each ear; then put a clamp on each ear of commou garter elastic, to keep the animal from shaking the oiled cotton out. I owned the mare thus treated, and know that since her recovery (October, 1867) no symptom of the crazy disease has ever been seen on her, and to-day she is a valuable mare. Try the oil, as it will surely do no harm.

GEO. KAY MILLER.

Vacaville, Solano Co., May 19, 1873.

Poultry Notes.

The Selection of Turkeys for Breeders.

The rule among the great majority of farmers, certainly at the East if not in California, is to breed only from yearling turkeys; the reason for which, as often given is that large hens are apt to break the eggs. If it is shown that the eggs of large turkeys are larger and stronger and likely to fare quite as well as small eggs under a small hen. Some trifling reason is given—anything but the real one, which, in most cases, that the farmer grudges the few extra pounds of poultry that he has to feed through the winter. The difference between a dozen good birds fit for breeding and a dozen of the second litter, is some sixty or seventy pounds—worth twelve dollars or more. If he markets that poultry he is sure of the money. The cost of keeping large birds in good condition is also more. So he tries to believe that the keeping of the refuse of his flock is good policy. This is a very bad practice. Nothing on the farm pays better than poultry, and turkeys stand at the head of the list, if they can have a good range, and not disturb the crops of neighbors. Turkeys do not reach their full size until their third year, and we can get larger and stronger birds from full-grown stock than from yearlings.

A writer in the *American Agriculturist* relates his experience in turkey raising as follows: In the year 1871 we bred from a large Bronze gobbler, a late summer bird of the previous year, weighing 25 lbs., and from yearling hens, with few exceptions. The gobbler was from a very large pair, weighing 62 lbs., and gave us a fine flock. We kept over the gobbler and most of the hens. He had increased his weight to thirty and one-half pounds without extra feed, and some of the hens reached 18 lbs. The result is a much larger flock of turkeys, and they are heavier October 1st than the flock of last year November 1st. This would indicate an average difference of 3 lbs. or more by Christmas in favor of breeding from two-year-old birds. Pairs weiging 40 lbs. at seven months are much moro numerous than pairs weighing 35 lbs. last year of the same age. The turkeys have had the same care, and the difference in growth seems to be owing simply to the fact that the breeders were of largor size, and more mature.

We kept over three goblers—October chicks—hoping they would make large birds the second season. In this we were disappointed. Nearly all the spring birds outstripped them by four or five pounds. The best of the late gobblers only dressed 14 pounds at Thanksgiving, when he was about fourteen months old. Of course seven months' feed and the care were lost. We purpose to keep the same breeders the third year, unless we can find something heavier. With a cock weighing 35 pounds and hens weighing 20, we think we can surpass the very satisfactory results of this year.

We are confident that nothing pays better than large first-class birds to breed from. Reducing this turkey experience to maxims, we would say: 1. Never breed from late turkeys if it is possible to get better. 2. Never breed from yearling turkeys if you can get two-year-olds. 3. If you must use yearlings, get a cock weighing from 22 lbs. to 28 lbs., and the larger the better, if he is well-formed and handsome in plumage. 4. Large two-year-old cocks weigbing 35 lbs. and upwards are cheap at almost any price for which they can be procured. They will leave their mark upon the whole flock, and the influence of such a size will be seen for several generations. No bird yields more readily to skillful breeding than the turkey, and we are glad to recognzie the influence of our Poultry Societies in its improvement.

Generous Hen.—Somebody says the hog is a Peabody amongst animals alongside of the hen. Throw a handful of corn into a ten-acre lot and every hen in the inclosure will get a dab at it. The last hen on the spot may not secure more than two kernels, but nothing in the hen's appearance will indicate that. It will step around with as much precision and gratitude as any in the flock, and wear the most pensive smile you ever saw. A hen will not eat everything it sees, but it will try to, and there isn't one of them on the face of this earth but that can tell you the taste of everything it has seen within the radius of a half mile of its home.

Produce of Fifteen Hens.—An octogenarian writes to the *Western Agriculturist* that his flock of fifteen hens averaged one hundred eggs each from January 1st, 1871, to the 27 of the December following. They were fed regularly twice a day with wheat bran and Indian meal, scalded with hot water or milk, a little pepper occasionally, and the scraps from the table, and a small allowance of wheat and corn in the kernel.

Separation of Stock.—Hens ought never to be kept in the same quarters with fowls of certain other species, as turkey, pea fowl or Guinea hen, because they worry them and drive them about. Ducks also ought to have a separate sitting place, because they get dirty with the droppings if they sit on the ground in the ordinary hen coop; birds of a feather should flock together.—*The Poultry World.*

To Clean Soiled Plumage.—Confine the fowl in a small coop and cover the bottom with dry, clean sand at least six inches deep; the fowl will clean itself.—*Iowa Homestead.*

Management of Geese.

In mating geese, three or four should be put to each gander, and not more than this, if the object is to breed from the eggs. Set them early in the season, for a larger proportion of vigorous young will be obtained from the earliest broods. When the goslings are hatched, shut them up at once with their mother, lest they get at the water and become wet, as in that case many of them are sure to die. Feed them, while in the coop, with fresh tender grass, cut fine, chopped cabbage, and a small quantity of dough made from corn-meal. Supply them with water in a shallow pan.

When they are three weeks old, they may be let out, if the weather is fine, and after this they are to be fed with only a little meal twice a day, for which grain in the kernel may be substituted at the age of six weeks. Grass is as much their natural food as it is that of the cow, and as soon as they are let run, they will take to it. However, the tame Canada goose and the long necked Chinese goose depend less upon grass, finding much of their food in marshes and shallow water. All kinds of fowls eat grass, but none make so much use of it as the goose.

In the winter, the supply of grain must, of course, be greatly increased, but it should be accompanied by some form of green fodder. Apples are useful, one being allowed daily to each bird; the cheaper sorts may be stored in autumn for this purpose. Rowen, cut fine, well soaked during several hours, and sprinkled with meal, is a valuable article. Bulk may be obtained by using whole or ground coarse bran and oats. An important point in deciding upon keeping geese is the advantage of the locality. They must have water for swimming and drinking, but their range upon this should be confined, or they will swim away and forage in your neighbor's mowing lots. Geese are very destructive to grass, eating some and tramping down a great deal more. They should have a pasture to themselves, and can be shut in with a fence, tight near the ground. They will not generally fly more than four or five feet up, and if disposed to go higher than this, their wings may be clipped. Yokes are abominable cruel contrivances.

In the Eastern States, geese may be plucked twice a year, and thrice in the South. If plucked too near freezing weather, they suffer from the cold and do not do well. Geese are hardy, healthy, and pay good returns, and their value is annually increasing, as fewer and fewer relatively are kept. In fact, all feathered farm stock—hens, ducks, geese, turkeys, and Guinea fowl—are more profitable than quadrupeds, provided they can be kept in such a way as not to do mischief, and are managed skillfully, so that tending them shall not involve to much work; that is, the produce of no species of four-footed farm stock will so much exceed the value of food consumed as will poultry.—*Live-Stock Journal.*

How to Treat Your Neighbor's Hens.—If your neighbor's hens are troublesome and steal across the way, don't let your angry passions rise—fix a place for them to lay.

Common Carriers.

The liability of common carriers is one it is important should be understood by every farmer. The Supreme Court has rendered a decision which is of interest. A suit was brought against the Michigan Central Railroad Company by a Mr. Bostwick, who delivered a quantity of wool to the agent of the Company, to be transported to Connecticut, and took a receipt for the same, giving verbal instructions for sending the wool from Detroit to Buffalo by Lake Erie. The wool was carried to Detroit by the Company, and stored for six days in its depot, and while there it was destroyed by an accidental fire. The receipt for the wool contained on its back a notice that "all goods and merchandise are at the risk of the owners while in the warehouses of the Company, unless the loss to them should happen through the negligence of the agents of the Company." Upon this state of facts the Court held, Justice Davis delivering the opinion, "that the liability of the Railroad Company, a common carrier, had not ceased, and that the provision in their charter rendering them liable for goods on deposit referred only to property which had reached its final destination, and there awaited delivery to the owner. That the notice on the back of the receipt was not effectual to limit the liability of the carrier, there being no evidence that the shipper expressly agreed to the condition of said notice. Nothing short of an express stipulation by parol or in writing should be permitted to discharge the carrier from the duties which the law has annexed to his employment."

A Correspondent of the *Scientific American*, points out the mistake made by many housekeepers in using only warm water in washing clothes, under the idea that too great heat sets the dirt. He asserts that half the labor of rubbing may be saved by using a high degree of heat, and for this treatment, a washing machine of some sort is absolutely necessary; and deprecate the use of chemicals as destructive to the fabrics.

Miscellaneous.

Changes in River Beds.

In a report on the subject of a water-supply for the village of Yonkers, New York, published in the January number of the *American Chemist*, Prof. J. S. Newberry furnishes some interesting facts on the geology of river-beds, that will be of general interest. He says: "It is probably known to you that most of the draining streams of all the region between the Mississippi and the Atlantic are now running far above their ancient beds. This fact was first revealed to me by the borings made for oil in the valleys of the tributaries of the Ohio. All these streams were found to be flowing in valleys, once deeply excavated but now partially filled, and in some instances, almost obliterated. Further investigation showed that the same was true of the draining streams of New York and the Atlantic slope. For example, the valley of the Mohawk, for a large part of its course, is filled with sand and gravel, to the depth of over two hundred feet. In the Hudson the water surface stands now probably five hundred feet above its ancient level—the old mouth of the Hudson and the channel which leads to it being distinctly traceable on the bottom nearly eighty miles south and east of New York. The excavation of these deep channels could only have been effected when the continent was much higher than now. Subsequently it was depressed so far that the ocean-waters stood on the Atlantic coast from one hundred to five hundred feet higher than they now do. During this period of submergence the blue clays in the valley of the Hudson—the 'Champlain clays'—were deposited, and the valleys of all the streams were more or less filled."

Aureola, or the Brain Atmosphere. — A new theory is propounded to explain why one happens to think of persons he has not seen for years just before meeting them. A similar phenomenon often happens, when one has impressions of the death of friends, who may be thousands of miles away, and subsequently learn that they died at that particular moment. A writer in the London *Spectator* thinks that there is a brain atmosphere extending through space, more subtle than the air or even the interplanitory ether. [May it not be that the theory is true?] As the undulations of the air occasion sound, and the undulations of the ether give the impressions of light, so the undulations of this brain atmosphere may convey impressions between sympathetic minds.

The theory is a very ingenious one, and there are certainly many facts which it will explain satisfactorially, but these different atmospheres must be curiously constituted, if so many different vibrations moving from so many different directions, do not interfere with one another.

How to Put in Bolts.—If there is a thing which is utterly detestable to look upon, by a strict observer and one who has a general knowledge of what is right, it is to see the heads of bolts driven down below the surface of the wood. The bolt has a certain duty to perform, and where that duty is the securing of a piece of iron to wood, or wood to iron, if the head of the bolt sets firmly upon the wood, and the nut is firm upon the iron, it is all that is required; but when we commence to draw upon the bolt until the head sets below the surface of the wood, that moment we commence destroying the fiber of the wood and aid the premature rotting at that one point, for no matter how nicely painted, or how neatly puttied up, there will soon be a cavity for the retention of a few drops of water. This alone would be enough to condemn the practice to say nothing of the other results it produces.—*Carriage Journal.*

The Mystery of Polished Surfaces.—The polish of which the surfaces of certain bodies, such as steel, the diamond, and other precious stones are susceptible, is an evidence at once of the limited sensibility of our organs and the unlimited divisibility of matter. This polish, is produced, as is well known, by the friction of emery powder or diamond dust, and, consequently, each individual grain of such powder or dust must leave a little trench or trace upon the surface submitted to such friction. It is evident, therefore, that, after this process has been completed, the surface which presents to the senses such brilliant polish, and apparently infinite smoothness, is, in reality, covered with protuberances and indentations, the height and depth of which cannot be less than the diameter of the particles of powder by which the polish has been produced.

Substitute for Quinine.—A French apothecary has discovered an excellent and very cheap substitute for quinine, in powdered laurel-leaf. The leaves of the laurel (*Laurus nobilis*) are slowly dried over the fire in a close vessel, and then powdered. One gramme (15½ grains) is a dose, and is taken in a glass of cold water. The drug so taken produces no bad effects, and soon, it is said, breaks up the most obstinate intermittent fevers.

Prof. Vogt records an instance of what may be called self-cannibalism. He cut in two a male cricket, and immediately the fore part, probably experiencing a sensation of emptiness in the ventral region, turned upon the hinder part and devoured it!

Electric Theory of Boiler Explosions.

An explosion occurred some time ago at one of the most celebrated manufactories in the world, the Hardmanschen works, in Chemitz, Germany. The causes which led to this disaster are very mysterious; the boilers were entirely new, and burst on the second day of their use, with such violence that the whole building was blown to pieces, causing the loss of many lives. The calamity happened, also, immediately after the fires were started, and before there could have been a very high pressure in the boilers.

The phenomena of a thunder storm, which are well understood, may throw some light upon the subject. The warmer the day the greater is the evaporation of water from the earth, and consequently the more violent are the flashes of lightning. If we consider what a mass of water evaporates in a day, in a large boiler, the volume of water while undergoing this change, increases seventeen hundred fold in bulk, we may easily infer that large quantities of electricity are also set free, and the boiler becomes filled with the fluid.

The coating applied to the external surface of the boiler generally consists of oil colors, or else some kind of varnish, and when first applied is very bright, but soon tarnishes from the deposit of carbon or soot from the flames. If the paint or varnish is accidently scraped off, there still remains this carbon deposit, which prevents the electricity from connecting with the earth. As soon, however, as the fireman carelessly removes this loose film, a full electrical connection is made with the earth, which occasions such a rapid production of steam that the exhaust pipes are unable to convey it from the boiler fast enough, and an instantaneous explosion follows, as was seen in the case of the boilers of the Hardmanschen works.

Limit to Expansion of Steam.—At a late meeting of the Manchester, (Eng), Scientific and Literary Society, as reported in *Engineering*, a discussion took place on the practical limit of the expansion of steam and the Society pretty generally agreed upon the proposition offered by Mr. McNaught that it was possible for the expansion of steam to be carried too far. When we have expanded steam to six times its volume we have got all out of it that will be of any benefit. Beyond this point there was no economy, because the back pressure not only lost its value, but operated against any economical result. If more expansion was wanted, the piston should be enlarged, and that would increase the prejudicial operation of the back pressure.

Minerals in Lava Deposits.—It is a remarkable fact that the lavas of Vesuvius contain a greater number of minerals than, perhaps, all others in the world. Hauy mentions that, of three hundred and eighty simple minerals known to him, no less than eigbty-two have been found on Vesuvius; of these several are peculiar to the locality. Sir Charles Lyell expresses the opinion that those have not been thrown up in fragments from some older formations, through which the gaseous explosions have burst, but have been sublimed in the crevices of lava, just as several new earthy and metallic compounds are known to have been produced by *fumeroles* since the eruption of 1822.

Is a Whale a Fish?—Prof. N. S. Shaler furnishes some notes on the habits of the whale, founded partly on information furnished by Captain John Pease, of Edgerton, Mass. In the course of the notes, the Professor says that the Captain is positive that a trace of *hair* is to be found within the skin of the right whale; for if the fresh skin were scraped, the inner section will show such a trace. If this whale, remarks the professor, is the descendant of a *land mammal*, we should expect to find just such a trace. Then, too, a sperm whale's tooth is shown in Nantucket, which has two fangs, and it is stated that the other teeth of the whale to which this belonged, had, also, two fangs. The Professor suspects here a case of reversion.

The Poisonous Action of Metals.—That the metals have a poisonous action in proportion to their "atomic" weights, and, inversely, as their atomic heats, was enunciated as a law by M. Rabuteau, a few years ago. This was verified in a large number of instances. He has recently experimented with calcium and potassium, the atomic weights of which are forty and thirty-nine respectively, and finds, as he expected, that the effects of injection of these substances into the veins of animals are very nearly equal.

The American Ideal.—The American ideal of happiness seems to me to be marriage and home, combined with public activity. To have a wife, house and home, his own piece of land, to take care of these, and to beautify them, at the same time doing good to the State or to the city; this seems to me to be the object of human life with most men; a journey to Europe to see perfected cities, and ruins belonging to them, is a desirable episode.—*Frederika Bremer.*

A Sensitive Plant.—Weltwitsch tells of a plant, an oxalis, growing in Angola, Africa, which is so sensitive that it closes its leaves on hearing (so to speak) a footfall in its neighborhood.

Farmers in Council.

San Jose Farmers' Club.

Club met May 24th, Presideut Casey presiding.

Mr Holloway said he was authorized to invite the club and the representatives of the press to attend the Evergreen School picnic next Tnesday, to be held at Oliver Farnsworth's grove.

Mr. Hobson said the club needed money now, as two months' rent was due. He said if members who were in arrears for dues, would pay them, there would probably be fuuds enough to meet the indebtedness.

Mr. Berglaud wanted to know if the Farmers' Market had been removed yet.

Mr. Garrigus said not, but the ageut proposed to move as soon as he could get a suitable location.

Mr. Holloway wanted to know if hogs and sheep would do well in the same pasture.

Mr. Herring said not, that the sheep would become diseased if allowed to run with hogs.

Mr. Garrigus said his brother had allowed hogs and sheep together, aud no disease resnlted.

Mr. Bergland said that disease would surely result if omniverous animals were allowed to run in the same field with herbivorous animals.

Mr. Holloway said that in the Eastno inconvenience had resulted from pasturing sheep and hogs together.

Mr. Bergland said this was probably on account of the frequent showers experienced there.

Mr. Hobson read a portiou of the decision of the Supreme Court in reference to the taxation of solvent debts.

The question for discussion was, "Resolved that the late decision of the Supreme Court exempting solvent debts from taxation is uujust and iniquitous, and should be resisted."

A motion by Mr. Dubois to modify the word "resisted" was lost.

Mr. Cadwell said there seemed to be a difference of opinion in regard to this tax question. The decision seemed to be opposed to the ideas of right entertained by most persons with whom he had talked. The way he looked upon the matter was, that the persons who make all the improvements and build up the country, are compelled to pay all the taxes. He thought all property, including solvent debts, should be taxed, and that liabilities should be deducted from the assessment of each person. If solvent debts are exempted, it leaves that much property uutaxed, and throws on to others' shoulders the burden of making up the deficiency.

Mr. Bergland said the substance should be taxed and not the shadow. He thought the decision of the Supreme Court was a righteous one. Paper is not money, it is only an agreement. The only way for just taxation is to tax the substance iu whosever hauds it is found.

Mrs. Larken wished to know if the farmers wonld like to have grain sacks mauufactured in San José.

Mr. Ware said that there was one time that the sack committtee were making efforts to get a reduction in the price of sacks but they found that the season was reducing the price fast enough.

Mrs. Larken said she had an engine suitable for running sewing machines, and there was a young man from the East who talked of buying the engine and going into the sack manufacturing business. She wanted to know the cost of making sacks, and about the number reqnired in this county.

Mr. Ware thought the sacks could not be manufactnred as cheap as they could be purchased.

Mr. Peebles said there were more sacks already in the State and in transit than could be used this season. That there were sacks imported already on an estimate of 30 bushels to the acre throughout the State, when in reality it would not average ten bushels. He thought the sacks already made up could not be filled.

Mr. Holloway thought that if sacks could be made in San José as cheaply as they could be pnrchased ready made, they should be made here.

The sack committee will investigate the matter and report.

The discnssion of the regular question being resnmed, Mr. Erksou said that supposing the tax under the Snpreme Court decision did not operate nnequally, he did not see what could be done this season to avoid it, bnt next season we conld make arrangements so as to meet the emergency; we can make and conduct our business in such a manner as to be not affected by the decision hereafter. If we try any legal remedy, it will have to go to the same court and we will have our trouble for our pains.

Mr. Chipman said the decision would depriciate the value of real estate to an extent that would surprise us. When it is discovered that real estate has to stand all the burden of taxation, it will not be very desirable property to hold.

Mr. Garrigus said taxes did not become due until the 1st of January while the Legislature meets in December, so if we elect the right men we will have a full month in which to nndo the work of the Supreme Court.

Mr. Dubois said he favored the decision. Property should be taxed where it could be found. He thought parties who had money would be glad to loan it out, and, in fact, would be exceedingly anxious to do so, and the result would be lower interest.

Mr. Gish wanted to know when money lenders ever paid taxes? He said the only remedy was through the Legislature; this could be done if we could get a Legislatnre that the moneyed men cannot buy.

Mr. Hobson argued that notes and mortgages are property under the Constitntion and therefore must be taxed.

After some fnrther discnssion the club adjourned.—*Mercury.*

Monterey County Farmers' Club.

Pursuaut to published notice, a large number of farmers of Monterey county assembled at the Court House, Salinas City, on Saturday, the 17th inst. The meeting was called to order by Capt. N. L. Allen, who, as one of those making the call, stated in brief the object of the meeting to be for consultation among farmers, as to whether or no, an organization in some form would not be conducive to their mutual interests, and the better enable them to resist the grinding exactions of produce speculators aud middlemen, whose rapacity has, in a measure, sapped the very foundation of our agricultural prosperity.

On motion, C. S. Abbott was elected temporary Chairman, and Samuel Cassiday temporary Secretary.

Upon taking the chair, Mr. Abbott made some pertinent remarks, showing that the grievances complained of by the farmers were real and insufferable, and in his judgment could alone be corrected by unity of action—that through correspoudence and documents furnished him, he believed that Farmers' Clubs, in conjunction with a rapidly increasing organization known as the "Patrons of Husbandry," offered the surest and most speedy remedy for existing evils.

The Secretary then read a letter to C. S. Abbott from O. H. Kelley, Secretary of the National Grauge of Patrons of Husbandry, in which information was given in regard to organization of Granges ou this coast; likewise an address from the National Grange, and the Constitution and By-Laws of that organization. An informal discussion then took place as to what action the meeting should take, participated in by the Chairman, Messrs. Allen, Hebbron, Buell, Leigh and others.

Upon motion it was unanimously resolved to form a Farmers' Club, and the chair appointed Capt. N. L. Allen, J. R. Hebbron and Wm. Quentel a Committee ou Permanent Organization.

The Committee on Organization reported as follows:

This organization shall be known as the Monterey Couuty Farmers' Club. Its officers shall consist of a President, Vice-President, Secretary and Treasurer, to be elected *viva voce.*

Signed: James R. Hebbron, N. L. Allen, Wm. Quentel.

The report of the Committee was adopted, whereupon the following were elected officers of the Club:

C. S. Abbott, President; J. R. Hebbron, Vice-President; Samuel Cassiday, Secretary, and Wm. Quentel, Treasurer.

On motion, a committee of three, consisting of N. S. Allen, J. W. Leigh and J. R. Hebbron, was appointed to report Constitution and By-Laws, to next meeting, for Government of the Club.

The following named gentlemen then came forward and subscribed their names as members of the Club: C. S. Abbott, James R. Hebbron, Wm. Quentel, Samuel Cassiday, N. L. Allen, C. Laird, Ira Tucker, C. F. Lewis, J. Y. Baxter, Henry Whisman, J. H. Campbell, Peter Kelley, J. C. Storm, G. F. Carrick, J. H. Rice, J. W. Leigh, R. T. Buell, J. R. Triplett, D. Coiner, Freeman Johnston, C. J. Weldon, Jacob Snyder, H. N. Hawkins, Judson Parson and T. B. Jamison.

On motion a cordial invitation was extended to the editors of the various county papers to attend the meetings of the Farmers' Club, and report proceediugs of the same.—*Monterey Democrat.*

Farmers' Club of Sacramento.

The club met on Saturday, May 24, Vice President E. F. Aiken presiding.

The several sub-committees on the strawberry festival reported, but the general committee not being ready to report in full, the whole matter was laid over till next meeting, when all committees are requested to report in full in writing.

The Secretary called attention to the fact that there were a large number of the members indebted to the club for back dues, and that he was ready at all times to receive them. A number of those present came forward and paid up, and then instructed the Secretary to notify all the delinquents to pay up within two weeks.

Grange Commiltee.

Mr. Aiken, from the committee to make preparations for the organization of a grange, reported that the committee had performed that duty, and that the grange was duly organized at Pioneer Hall, in this city, on the 17th instant. That the grange was fully organized and ready to receive applications for membership, and that a large nnmber were being handed in. But as they had not yet received the necessary books and papers from the National Grange, no initiations conld be made. However, all applications would be received and acted upon, and would be ready for initiation when the neccssary papers were received.

The report was received and the committee discharged.—*Sac. Record.*

The Farmers' Canal Company.

We the undersigned, W. W. Gray, William P. Fowler, H. J. Ostrander, M. D. Atwater, Norval Douglass, H. B. Jolly, Thomas Upton, Wilson E. Elliott, Stephen Fitzgerald and R. H. Morrison, all residents and citizens of Merced county, State of California, hereby associate ourselves together as a Private Corporation, uuder and by virtue of the laws of the State of California for such purposes made and provided, under the Corporate name of The Farmers' Canal Company.

The objects and purposes for which this Corporation is formed, is for the mutual benefit of its stock-holders in agricultural pursuits, by appropriating one hundred thousand inches of water of the Merced River, flowing through Merced county, State of California, measured uuder a four inch pressure, for the purpose of irrigating the lands of the stockholders of this Corporation, and of others who may wish to pnrchase water of this corporation for irrigating purposes.

Sec. 2. And for the purpose of divertiug said amount of water from said river for the purposes aforesaid, to construct, use and keep in repair, a canal commencing at a point on the left bank of the Merced River, in said Merced County, near the line dividing Township Ranges fourteen and fifteen East of the Monte Diablo base and Meridian, and between a certain dam on said river, known as the Blunt, Geiser and Perrin dam, and a certain oak tree standing on the left bank of said Merced River above said dam; which said oak tree is about thirty inches in diamcter, at this time, and is marked on the westerly side with the letters R. C. C. and B. T. beiug a bearing tree, marking the head of the Robla Canal Company's Canal.

From thence running in a southerly direction to the highest bank attainable on or near the right bank of the San Joaquin River, as shall hereafter be determined aud located by the Engineer of this Corporation; said canal to extend in its course, across Bear Creek, Mariposa Creek and the Chowchilla. Said canal to be of sufficient size to carry the said 100,000 inches of water.

Said Corporation claiming, and to improve and use, for the purpose aforesaid, the chaunels of Bear Creek, Mariposa Creek and the Chowchilla from the points where said Canal crosses said streams or channels to the mouths of said channels, together with all the tributaries thereof below such said crossings, or which may be crossed by said canal, and also all other channels over which said caual shall pass, from the points of crossing the same by said canal to the outlets of such channels.

And also for the construction of such branch canals from the main caual hercinbefore mentioned, as shall be found advisable, feasible and to the best interests of this corporation; said brauch canals to be used for the same purposes as the main Canal.

Also for the further purposes of collecting water rates for the use of water supplied to non-stock-holders for irrigation purposes; also to collect water rates for the use of water supplied to the stock-holders in excess of such stock-holders pro rata share of the water of said canal; also to acquire and sell real estate, or right of way, and to do all and everything necessary to carry out the objects and purposes of said Corporation as above enumerated.

Sec. 3. The principal place of business of said corporatiou shall be along the line of said canal and its branches in the counties of Merced and Fresno, and the principal office of said Corporation shall be at the town of Merced in said Merced county.

Sec. 4. This Corporation shall exist for the period of fifty years from and after the —— day of May. A. D. 1873.—*Merced Tribune.*

Yolo Grange.

A Grange of Patrons of Husbandry was organized at Central Hall, at Woodlaud on Monday the 17th inst. by W. H. Baxter, Grand Deputy. There were twenty-one members constituting the organization, with officers as follows:

W. M. Jackson, Master; Wm. S. Flournoy, Overseer; H. Deaner, Lecturer; D. P. Diggs, Steward; T. J. Dexter, Assistant Steward; S. P. Pond, Chaplain; W. W. Hannaman, Treasurer; D. Schindler, Secretary; E. R. Jackson, Gate-Keeper; Mrs. Kate Jackson, Ceres; Mrs. Cathrine Jackson, Pomona; Mrs. J. E. Diggs, Flora, Mrs. H. W. Dexter, Stewardess.

A committee was appointed to make arrangements for a hall.

Regular meetings the second and fourth Saturdays of each month.

Applications for membership may be made to either of the officers, accompanied by an initiation fee of five dollars for males and two dollars for females. None are eligible to membership unless they are practical farmers, or whose chief pecuniary interest is that of agriculture, and the wives and sons and daughters of such respectively over the ages of 18 and 16 years.

All applications for membership are reported to the grange in session, and are required to lay over till a subsequent meeting, and then balloted upon.—*Yolo Mail.*

Merced Farmers' Club

Immediately after the adjournment of the mass meeting, May 17th, the Farmers' Club went into regular session. President Jolly presiding.

The Club Committee on Irrigation, Mr. Fowler chairman, were not ready to make a report.

After a lengthy discussion on matters pertaining to irrigation, Mr. N. S. Rogers moved that a committee of five be appointed to confer with the Congressional Committee on Irrigation. The motion was carried and the President appointed the following gentlemen on said committee: Messrs. Rogers, Collier, Fowler and Upton.

On motion of Mr. Fitzgerald, the President was added to the committee.

A motion was made by Mr. Fowler to appoint a committee on organization of an Irrigation Company. The motion was carried, and the President appointed Messrs. Fowler, Ostrander, Cray, Atwater, Collier, Gray, Douglass and Fitzgerald on the committee.

On motion the President was added to the committee.

Adjourned to May 24th.

Colusa Farmers' Club.

Editor Sun:—Our Club still exists, and is in a prosperous condition. We have had regular weekly meetings, and I notice an increase of interest at each meeting. The club now nnmbers thirty-two members, and they are, too, the most enterprising farmers of Grand Island. At our meeting on the 3d inst., we were favored with a visit from your fellow-townsman, J. H. Liening, who spoke in favor of the movement and predicted good results if the farmers would only prove true to themselves.

The meetiug on the 10th was held at Grimes' Hall, and was largely attended, and twelve new members were admitted; among them, C. J. Diefendorff, J. J. Hicok and C. Grimes. After the business of the club was concluded, we were favored with a very able and interesting address by Dr. Pollard.

At the last meeting—May 17th—held at Bridgeport, school house, Jacob Myers, J. P. Bainbridge and John A. Allen joined the Clnb. Howell Davis one of the originators of the movement, having recently returned from New Mexico, being called upon, stated that while New Mexico was a very good country for some things, it would in uo way compare with our own beautiful State.

We now contemplate organizing a Grange, and have taken the necessary steps to that end. We were promised a visit, at our last meeting, from the editor of the *Colusa Sun*, but he failed to put in an appearance. We were somewhat disappointed, but hope to see him at onr next. All farmers and others interested in the prosperity of farmers, are iuvited to attend.

J. C. Wilkins, Secretary.

[We had fully intended to be at the meeting of the Club, but the order of the District Court to be and appear before his Honor, Jndge Keyser, at about the hour of meeting, then and there to tell all we knew abont a certain case, prevented our going—will try aud do better next time—Ed. Sun.]

State Agricultural Society.

We have received a pamphlet contaiuing the uames of the officers of the State Board of Agriculture and Agricultural Society, with list of Premiums offered at the twentieth annual Fair of the Society, to be held in Sacramento city commencing on the 15th and ending on the 21st, September, 1873.

Over $20,000 is appropriated for premiums, besides liberal special premiums for all worthy articles exhibited, not mentioned in the general schedule. A gold medal will also be given to the most meritorious exhibition in each of the seven grand departments.

State Board of Agriculture for 1873.

President, R. S. Carey, Sacramento. Directors; Coleman Younger, San José; T. L. Chamberlain, Lincoln, Placer county; Chas. H. Ross, Sacramento; M. D. Boruck, San Francisco; Marion Biggs, Butte; Fred Cox, Sacramento; Chris. Green, Sacramento; Robt. Hamilton, Sacramento; J. J. Green, Sacramento. Officers of the Board; Robert Beck, P. O., Sacramento, Secretary; R. T. Brown, Sacramento, Treasurer.

The board gives notice that the Central Pacific Railroad Company will transport all articles and animals exhibited at the Fair, over their respective routes, free of charge. Freight being paid on them to the Fair will be returned upon reshipment by the same owner, and exhibition of Certificate of Secretary that the same has been exhibited. The same company will issue excursion tickets to all parties going to the Fair and returning, at about half price.

A Lusus Naturæ.—Thomas Polmantier, of Princeton, Cal., writes us that he has a cow that gave birth to a calf having two heads, five fore feet, two hind feet and two tails, with two bodies joined at the shoulders. He refers us to four persons in corroboration of the existence of this strange freak of nature.

Agricultural Notes.

ALAMEDA.

Encinal May 24: The Season.—For the past few days the weather has been delightful; neither too hot or too cold, and with no piercing north winds to curdle the blood. Crops are growing finely, and croakers will have little cause for the further exercise of their peculiar vocation; their chief occupation will be gone, until they make the discovery "that there will not be sufficient tonnage to carry of the superfluous crops," or something equally harrassing to their imaginations. In the meantime let us be thankful for what we have to enjoy, without anticipating evils that may come in the future.

Early Blackberries.—Gideon Auglinbaugh, who resides on the Encinal of Alameda, has for some years been experimenting on the production of the California blackberry, and has succeeded in producing a new and valuable variety. which he calls the Auglinbaugh. It is a California seedling; and the berry is of large size, and handsome. It ripens at least six weeks earlier than the Lawton grown in the same locality and under similar treatment. Last year the berries, which are quite tart, ripened early in May. This year they did not reach the same point until the 20th, owing to the backwardness of the season. Mr. Auglinbaugh has only two hundred plants on his place in Alameda, but at Napa has several thousand younger ones, and next year will have berries for the market.

AMADOR.

Dispatch May 24: Cutting Hay.—Our farmers and ranchers are nearly all busily engaged at present, in cutting and gathering in their hay. Notwithstanding the dry season, it seems to be the general opinion that the yield in this county will be fully as large as it was last year, and many are of the opinion that it will be much larger. The grain crops are also looking fully as well as could be expected under the circumstances.

ALPINE.

Miner May 17: Snow fell here quite lively on the 15th, finally winding up with a nice rain which has done immense good to the farmers and graziers of Alpine.

CONTRA COSTA.

Gazette May 24: Cattle Moving—A thousand head of cattle recently purchased near Los Angeles by Judge S. C. Hastings, were crossed by the Martinez and Benicia Ferry on Tuesday last, en route for the tule ranch of the purchaser, near Main Prairie. It is reported that the cattle were purchased at fifteen dollars per head, delivered at the above mentioned destination; and though a somewhat gaunt looking band, as would be expected from short pasture and water on the long drive, the purchase, at such price, must be considered an advantageous one to the buyer, who has ample range and pasture on which the creatures can feed and grow fat.

Crop Statistics and Conditions.—Besides that of Mr. Fish, for the Martinez district, given in the Farmers' Club proceedings some weeks since, limited returns have been made to the crop reporter for the club, for making up a report to the State Union, Blanks for the returns have been quite freely distributed and more will be furnished on application. We have a return from Mr. James McHarry, for the Rodeo Valley district. May 15th showing 2,775 acres of wheat and 740 acres of barley, as against 1,960 of wheat, 325 of barley last year, the condition and promise of the barley being better and the wheat equally as good as last year.

EL DORADO.

Democrat, May 24: Coloma Fruit Prospects.—Some time ago we gave currency to the report that the crop of grapes, peaches, etc., at Coloma and vicinity had been completely destroyed by the frost, but at the same time we expressed a hope that our neighbors were worse scared than hurt. During a visit to Coloma last Saturday we interviewed John Teuscher and several other horticulturists, who assured us that their fruit crop this season will be fully equal in quantity and judging by appearances, superior in quality to that of last year. They think that the crop of Robert Chalmers, especially grapes and peaches, will fall somewhat short of last year's, but even he has not suffered nearly as severely as was feared and expected. We have met but one orchardist or vineyardist of that vicinity who reports serious damage. We refer to George W. Ramsey, whose place is below Uniontown and who reports that his peach crop, usually one of the finest in that celebrated neighborhood, will hardly amount to a basketful this year.

Republican, May 22: El Dorado county now gives promise of a very abundant fruit crop of all kinds raised here. The apple, pear and peach trees were never more heavily loaded.

The hay and grain crop in this vicinity is yielding much better than was expected three weeks ago.

The dairymen of this section have commenced moving their stock to Lake Valley and vicinity, for summer pasturage.

FRESNO.

Expositor, May 21: Good Barley.—Mr. Leroy Dennis has shown us some samples of splendid looking barley, one head having ninety-six grains, and the heads average 4½ inches in length. The barley was grown on Thomas Hensley's place, on the Fresno.

KERN.

Miner, May 34: Fifteen Tons of Hay Burned.—Mr. Dan. Walser's ranch received its first instalment of grasshoppers a few weeks since. Mr. W., not caring to take any risks, spread fifteen tons of hay over it, which had the effect of marshalling the hopping army. The hay was then fired. Not a grasshopper lives to tell of the great conflagration.

LOS ANGELES.

Transcript, May 14; We have had no rain at all since the 18th of February, and but very few fogs. There will not be as much barley and rye threshed as there was seed planted, and much of the crop will not make hay. Many farmers will have to leave their land, being completely ruined. Others are offering their lands at a sacrifice in order to pay their debts get out of the country. The lucky ones who live near the irrigating ditches, or wno have artesian wells, are plowing under their small grain crops and planting corn, hoping by that means to get even.

Necessity of Irrigation.—Any one intending to come to this portion of California, must expect to have some means of irrigating his land if he desires to raise *anything*. All the theories regarding sub-soiling and high cultivation explode when put in practice. There is some land in this county which will produce corn without irrigation or much cultivation; but it is in swamps or on the borders of lagoons or rivers. When this description of land produces a large crop, the fact is proclaimed throughout the length and breadth of the land, but a hundred families may be suffering for food, because of the failure of their crops, and the matter is kept very quiet.

MERCED.

Tribune, May 24: Cotton in Merced County. The amount of land planted in cotton in this county, this season, will foot up in the neighborhood of twelve hundred acres. Mr. Peck who has one hundred acres of land on the Merced river planted in cotton, informs us that the cotton will now average six inches in hight, is farther advanced and looks a great deal better than it did at this time last season, and thinks the crop will yield more to the acre. J. M. Strong has planted some three hundred acres of cotton; Buckley Bros. 250 acres; C. S. Peck, one hundred acres; S. K. Spears, seventy-five acres; J. B. Cocanour, forty acres; C. Dean, forty acres; besides others who have planted small patches by way of experiment.

MONTEREY.

Democrat, May 24: The Chualar Rancho promises to cut quite a figure this year as a grain producer. The tract leased by the Campbell Bros., 2,000 acres in extent, is in wheat and barley, both giving promise of a good yield; and from about a mile beyond Deep Well Station, northwardly, all the plain country east of the overland road is in cultivation, with the prospect of fair yield.

North of this tract on the same side of the road, come the lands of Laird, Kellog and Carr, and upon them, also, up to the foot-hills grain, is now standing. The whole surface, that is to say, thus brought into production, exclusive of the Campbell tract, is seven and a half miles long by two wide. Beyond the Deep Well, next the foot-hills, Mr. Carpenter of this place, in connection with Mr. Westlake, has a hundred acres in flax, which looks finely.

Argus, May 24: The Crops.—We are informed by a gentleman whose opportunities for knowing are very good, that the crops from New Republic to some distance below Pomeroy's Alisal ranch, are look spendidly.

Farmers' Club.—A Farmers' Club was organized in Salinas City, Saturday last, and the following officers elected: C. S. Abbott, President; J. R. Hebbron, Vice-President; William Quentel, Treasurer; Samuel Cassidy, Secretary. Can't Castroville do something in the same line?

NAPA.

Reporter, May 24: Proof.—As a proof that Napa county is certain of a bountiful harvest, we mention the fact that Messrs. Geo. Linn and Poston, of Yountville, have purchased the crop of Mr. Burket, of that place, which consists of 70 acres of wheat and 10 acres of barley, for $2,100, buying it just as it stands. They have also purchased 20 acres of another party near there, paying him $18 per acre for it. These gentlemen have been in the busines too long to make any foolish bargains, and will, no doubt, make considerable on these two purchases. These crops have not been taken for debts, the cash having been paid in both instances.

PLACER.

Herald, May 24: More Oranges. — From Rev. N. R. Peck, who has a most highly cultivated place at Ophir, excelling in beauty and variety of pumological and ornamental trees and plants to be found in most of the larger and noted places in the State, we learn that he has also an orange tree, of which he planted the seed with his own hands, that came into bearing last season, and is now literally crowded with bloom and young oranges. The fruit of last season from this tree was equal, if not superior, to any raised in Southern California or imported.

We note this as we have the trees of Mr. Andrews in Auburn, and Burkhaus, near Gold Hill, only to say that the people of Placer county, south and west of the American river, live in the garden spot of the world if they only knew it. W. C. Norton and Robt. Gordon, in Auburn, and Messrs. Chamberlain, in western Placer, and many others, have thrifty orange trees ready to come into bearing, and the tests of those that have already borne will lend an impetus to this branch of business in Placer that will make the orange, lemon and lime groves on our hills and valleys, as common in the next ten years as are now the apple, peach, cherry, pear, fig, etc.

There has been no instance, even as high up in the foot-hills as Auburn,, where an orange has not ripened to perfection in the winter, and they bloom here in May after all danger of frsot is over; and from these two demonstrated facts another follows, and that is, that the orange tree grown out of doors here, is more reliable for a crop every year than either the peach or apple.

There are now growing and bearing in these hills and valleys, apple, pear, plum, cherry, apricot, nectarine, almond, fig, English-walnut, persimmons and quince, with all the varieties of berry, and when we add the lime, lemon and orange with the other semi-tropical varieties, why do we not speak correctly when we say we live in what *ought* to be the garden spot of the world?

One other word. Our markets furnish the orange, lemon and lime. These can be purchased, the seed planted and the trees grown out of doors; and why not every man that owns a place plant seeds and raise his own trees at home? At two or three years old they can be grafted with scions from bearing trees, and yield fruit the second year after, so that in five or six years at farthest, each family may raise their own lemons and oranges.

It would not surprise us if the day was not distant when the lemons and oranges from the foot-hills of placer would, as now do our mountain fruit and berries, drive the valley, southern, and imported oranges and lemons from the city markets.

PLUMAS.

National, May 24: Rain.—Our farmers were made glad on Sunday last, by a splendid shower of rain, lasting several hours, and doing an immense service to the growing crops, which at present look better than usual at this season. The rain extended to all parts of the county, and the benefits derived from it are incalculable.

SAN DIEGO.

Union, May 22: Hay.—A good deal of hay is coming in from the country ever day. Nearly all the valley lands have produced good crops of hay.

A Full Grape Crop this Season.—Our old friend, Mr. William E. Flinn, is in town and gives us some interesting information about the grape crop in the vicinity of the Cajon Valley. Mr. Flinn, as is well known, has a very fine vineyard about three miles beyond the Valley. He has about 3,500 vines, of which 2,600 are bearing.

The frosts, which this year have wrought such wide-spread injury to the vineyards of the State, descending as far as Los Angeles and Anaheim, did not reach—so far as we can learn—the vineyards of San Diego County; at least no frosts of sufficient severity to injure our vines have been noted. At Mr. Flinn's place, the grape crop this year will be unusually good, and he anticipates a surplus to manufacture into wine.

Mr. Flinn tells us that the fine little vineyard of Mrs. Ames, in the same section, is also likely to produce a good crop, although some weeks ago it was feared that it would fall short of last year. The late exceedingly fine weather is having a very favorable effect.

Nearer town, in the Sweetwater and Paradise Valleys the grape crop will also be good. In the latter valley—Mr. Louis Meinzer will gather a large crop, and his vines embrace nearly all the fine foreign varieties as well as the best Eastern and the native "Mission" grapes.

We have had no report as yet from the county north and northwest, but there is no reason to doubt that the grape crop will be a good one in all parts of the county.

SANTA BARBARA.

Press, May 23: Our Crops.—Nothing more need be said about the crop prospect in this county, meaning wheat, oats, etc. The question is settled; the prospect is a fulfillment; the reapers are among the sheaves and the haymakers are joyous at their work in the new mown hay, for fond anticipation has become a glad realizotion, and the thrifty, intelligent farmer has a satisfactory reward for his toil and outlay.

In a word, Santa Barbara county crops are more than an average; in some fields there is an enormous yield, fully balancing the want of judgment and industry on the part of the less successul farmers of adjoininiug lands.

No rust has blighted any field of which we have heard, while the vigor of the stalk, the size of the head and the weight of the crops upon the ground, would satisfy the most covetous wheat-grower in the country.

It will astonish people who are accustomed to think that irrigation is practised here as in other parts of the State, to learn that not a single field of wheat, barley or oats has been irrigated in this region, except by the sweat of the farmer's horses and of nis honest brow. In fact, for this part of the country there is no method of irrigation so effective as the sweat of the farmer and his horses.

Santa Barbara Cotton.—Samples of cotton raised twelve miles down the coast from Santa Barbara, in the Carpinteria settlement, by Mr. John P. Walker, have been placed in our hands. Experts from the South, now resident here, declare that this cotton is equal to any they ever saw. The seed was planted June 1st, and the bolls picked December 1st, just six months from the planting. There was no cultivation whatever after planting, neither hoeing nor watering. Those who wish to see these samples are invited to call at Childs & Tuttle's, where we have placed this fine home-grown cotton for inspection.

SAN JOAQUIN.

Argus, May 24: The Grain Crops.—The crop of small grain troughout the valley, notwithstanding the drouth, will amount to about one-half the average per acre of ordinary seasons, or from ten to twelve bushels per acre. Though there has been no fall of rain in the valley since the last days of February, the weather has been uniformly cool, and hence the moisture has been retained much longer near the surface of the ground than would have been the case had the weather been as warm during the spring months as is usually the case, and crops that were pronounced lost beyond redemption three or four weeks ago, are now filling and will yield sufficient grain to pay well for harvesting. There will be a large surplus raised in this valley for export, the acreage planted being largely in excess of that of last year. The harvest season will commence quite early, some of the farmers being now ready to commence heading barley on early-sown and volunteer fields on Monday of next week.

SONOMA COUNTY.

Flag, May 22: From Anderson Valley,—Everything is prospering up this way; crops are looking very fine, and the range for stock is good, although we now need rain. The people are all busy shearing sheep; there will be a large yield of wool from this valley this season.

SUTTER.

Banner, May 24: The Crops.—From all parts of the county we hear the most gratifying reports. During the last week we have made inquiries of at least twenty-five different farmers, and from all of them we heard about the same thing, that the crops were looking splendidly, considering the dry spring, and some were inclined to think that they would turn out much better than many anticipated. On the Tule, and southwest of here, all the summer-fallow and early sown will make a full crop, and over on the Sacramento river, above Knight's landing. many of the fields will yield more to the acre than they did last year. Sutter is far from being gone in yet.

Caterpillars;—These vermin recently attacked Grass Bro's orchard, on Yuba bottom, and eat all the fruit and leaves from about 500 apple trees. Though there were contiguous to their orchard, peach and fig trees, as well as grape vines, the worms did not touch one of them. Apples and willows appear to be the choice of these destructive worms.

SAN LUIS OBISPO.

Tribune, May 24: The Grasshoppers.—These pests, which are making such havoc among crops in other parts of the State, are doing little or no damage in this section. They appeared in great numbers in the earlier part of the season, but they seem to have been visited by some deadly plague, probably the epizooty, and are now dying off very rapidly.

The Weather and Crops.—The weather during the past month has been unusually favorable to the growing crops. The failure of the spring rains, which are so necessary to the late sown grain, has been somewhat atoned for by the nightly visitations of dense fogs. The late sown grain throughout the county will not make more than half a crop. The grass, we are informed, is rather short, but there is sufficient to meet all the requirements of the stock men.

STANISLAUS.

News, May 23: Grain Field Burned.—A grain field belonging to Thomas Gehr, near Grayson, caught fire last Wednesday, and was totally destroyed. A stack of hay was also consumed. The fire extended to an adjoining field and burned the greater part of it.

The Crop Prospect.—Farmers are the most desponding set of mortals we ever knew. They always cry before they are hurt. This season they have been uneasy and fretful for the past two months on account of their crops, when it is far from being a dronghth in our county this year. An old farmer tells us there are many fields of wheat looking as fiue as any he ever saw in the country, while others, of course are inferior, but upon the whole, he thinks nearly, if not quite an average crop will be raised. Fine specimens of wheat and barley are laid upon our table every few days, with perhaps, the remark, " That's good for twenty or twenty-five bushels to the acre," which is a flattering prospect, indeed.

SOLANO.

Tribune, May 24: Crops in Suscol Valley.—The wheat crop in Suscol Valley promises a better yield than last year, the cool weather of the last ten days worked wonders on all the crops of the State, and the indications as gleaned from the tone of our exchanges, now are that fully half a crop will be gathered.

Cattle.—A drove of 1,015 head of cattle and sixty horses from San Diego, belonging to Judge S. C. Hastings, passed through Benicia on Tuesday destined to Maine Prairie.

TULARE.

Delta, May 22: The Crop Prospects.—The last part of the season has been dry, almost beyond precedent. The winter, so favorable every way, chopped off far too short, and we had no rain to speak of for weeks. Crops are thin, without doubt. Much has been cut for

[Continued on Page 348.]

Notes on the Honey-Making Ant of Texas and New Mexico.

(*Myrmecocystus Mexicanus.* — Westwood.)

[By Henry Edwards.—California Academy of Sciences.]

The natural history of this very curious species is so little known, that the preservation of every fact connected with its economy becomes a matter of considerable scientific importance, and the following observations, gleaned from Capt. W. B. Fleeson of this city, who has recently had an opportunity of studying the ants in their native haunts, may, it is hoped, be not without interest.

The community appears to consist of three distinct kinds of ants, probably of two separate genera, whose offices in the general order of the nest would seem to be entirely apart from each other, and who perform the labor allotted to them without the least encroachment upon the duties of their fellows. The larger number of individuals consists of yellow worker ants of two kinds, one of which of a pale golden yellow color, about one-third of an inch in length, acts as nurses and feeders of the honey-making kind, who do not quit the interior of the nest, "their sole purpose being, apparently, to elaborate a kind of honey, which they are said to discharge into prepared receptacles, and which constitutes the food of the entire population. In these honey-secreting workers the abdomen is distended into a large, globose, bladder-like form, about the size of a pea." The third variety of ant is much larger, black in color, and with very formidable mandibles. For the purpose of better understanding the doings of this strange community, we will designate them as follows:

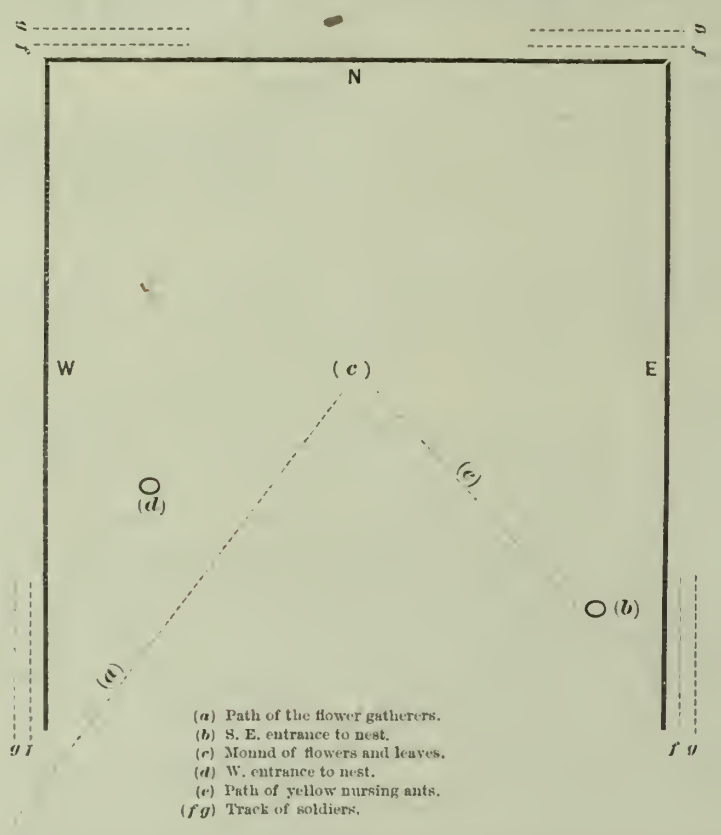
No. 1—Yellow workers; nurse and feeders.
No. 2—Yellow workers; honey makers.
No. 3—Black workers; guards and purveyors.

The site chosen for the nest is usually some sandy soil in the neighborhood of shrubs and flowers, and the space occupied is about from four to five feet square. Unlike the nests of most other ants, however, the surface of the soil is usually undisturbed, and but for the presence of the insects themselves, presents a very different appearance from the ordinary communities, the ground having been subjected to no disturbance, and not pulverized and rendered loose as is the case with the majority of species.

The black workers (No. 3) surround the nest as guard or sentinels, and are always in a state of great activity. They form two lines of defence, moving different ways, their march always being along three sides of a square, one column moving from the southeast to the southwest corners of the fortification, while the other proceeds in the opposite direction. In most of the nests examined by Captain Fleeson, the direction of the nest was usually towards the north; the east, west and northern sides being surrounded by the soldiers, while the southern portion was left open and undefended. In case of any enemy approaching the encampment, a number of the guards leave their station in the line and sally forth to face the intruder, raising themselves upon their hind tarsi, and moving their somewhat formidable mandibles to and fro as if in defence of their foe. Spiders, wasps, beetles and other insects are, if they come too near to the hive, attacked by them in the most merciless manner, and the dead body of the vanquished is speedily removed from the neighborhood of the nest, the conquerers marching back to resume their places in the line of defence, their object in the destruction of other insects being the protection of their encampment, and not the obtaining of food. While one section of the black workers is thus engaged as sentinels, another and still more numerous division will be found busily employed in entering the quadrangle by a diagonal line bearing northeast, and carrying in their mouths flowers and fragments of aromatic leaves which they deposit in the center of the square. A reference to the accompanying sketch will give a more clear understanding of their course; the dotted line (a) representing the path of this latter section, while the mound of flowers and leaves is marked (c). If the line (a) be followed in a southwest direction, it will be found to lead to the trees and shrubs upon which another division of the black workers is settled, engaged in biting off the petals and leaves to be collected and conveyed to the nest by their assistants below. On the west side of the encampment is a hole marked (d), leading down to the interior of the nest, which is probably chiefly intended for the introduction of air, as in case of any individuals carrying their loads into it, they immediately emerge and bear them to the common heap, as if conscious of having been guilty of an error. A smaller hole near to the southeast corner of the square, is the only other means by which the interior can be reached, and down this aperture, marked (b), the flowers gathered by the black workers are carried along the line (e), from the heap in the center of the square, by a number of smaller yellow workers (No. 1), who, with their weaker frames and less developed mouth organs, seem adapted for the gentler offices of nurses for the colony within. It is remarkable that no black ant is ever seen upon the line (e), and no yellow one ever approaches the line (a), each keeping his own separate station and following his given line of duty with a steadfastness which is as wonderful as it is admirable. By removing the soil to a depth of about three feet, and tracing the course of the galleries from the entrance (b) and (d), a small excavation is reached, across which is spread in the form of a spider's web, a net work of squares spun by the insects, the squares being about one-quarter inch across, and the ends of the web fastened firmly to the earth of the sides of the hollow space which forms the bottom of the excavation. In each one of the squares, supported by the web, sits one of the honey-making workers, (No. 2), apparently in the condition of a prisoner, as it does not appear that these creatures ever quit the nest. Indeed it would be difficult for them to do so, as their abdomens are so swollen out by the honey which they contain, as to render locomotion a task of difficulty, if not to make it utterly impossible.

The workers, (No. 1), provide them with a constant supply of flowers and pollen, which, by a process analogous to that of the bee, they convert into honey. The fact that the remainder of the inhabitants feed on the supply thus obtained, though it is surmised, has not been established by actual observation; indeed with reference to many of the habits of these creatures, we are at present left in total ignorance, it being a reasonable supposition that, in insects so remarkable in many of their habits, other interesting facts are yet to be brought to light respecting them. It would be of great value to learn the specific rank of the black workers (No. 3), and to know the sexes of the species forming the community, their season and manner of pairing, and whether the honey-makers are themselves used as food, or if they excrete their saccharine fluid for the benefit of the inhabitants in general, and then proceed to distil more. I regret that at this time I am only able to bring before the notice of the Academy, specimens of the honey-makers (No. 2), the other members of the community, except from Captain Fleeson's description, being quite unknown to me. It is, however, my hope that at a future meeting I may be enabled to exhibit the other varieties, and to give some more extended information upon this very interesting subject. The honey is much sought after by the Mexicans, who not only use it as a delicate article of food, but apply it to bruised and swollen limbs, ascribing to it great healing properties. The species is said to be very abundant in the neighborhood of Santa Fé, New Mexico, in which district the observations of Capt. Fleeson were made.

DIAGRAM OF THE EXTERIOR OF THE NEST OF MYRMECOCYSTUS MEXICANUS.



(a) Path of the flower gatherers.
(b) S. E. entrance to nest.
(c) Mound of flowers and leaves.
(d) W. entrance to nest.
(e) Path of yellow nursing ants.
(f g) Track of soldiers.

Cost of Abusing Milch Cows. — Harris Lewis, the eminent (Herkimer County, New York) dairyman, said lately, in an address to the Board of Agriculture, that he had known a cow which uniformly gave 18 per cent. of cream to her milk to decrease her yield to 6 per cent. in the short space of twelve hours, merely from the excitement caused by the bad treatment of a brutal milker. It was not guess work, because he used graduated glasses to test the matter. This shows pretty conclusively that it does not pay dairymen to allow their cows to be ill-treated. And in ill-treatment is to be included anything that will alarm or excite them—fast driving to and from pastures, worrying by dogs, yelling at them, and threatening demonstrations by boys, etc. Civility and good nature pay when bestowed on cows.

The Virginia and Truckee Railroad Company are putting up telegraph poles on the line of the track, and through all the tunnels between Gold Hill and Virginia, for the new telegraph wire of the Company.

Preserve the Fruit.

Heretofore California has been a very large importer of dried and preserved fruits, and this even when quantities of our own green fruits have been allowed to go to waste under the trees, because the price offered for them in this condition would not pay a profit, after paying expenses of gathering, shipping and commissions for selling. We have seen in this State tons of apples, pears and peaches actually rotting on the ground, which, if in any of the New England or Middle States would have been dried or preserved for the California market, and would thus have been made to pay the producer a very satisfactory profit, after bearing the expense of shipping from the Atlantic to the Pacific. This seems like an extravagant statement, but is nevertheless true, and the very fact that it is true should wake our fruit producers up to a realization that there is something very wrong in the manner in which they have been conducting their business, and cause them to look about for the means of correcting this wrong. We have heretofore depended too much upon the sale and consumption of our fruits in a green state.

In the face of the fact that not one-half of the apples and pears that we have been producing and that ripen in the latter part of summer and the early autumn, have been needed for immediate consumption in a green state, we have persisted in forcing them upon the market; when, too, every shipment made brought us in debt. It is true that the demand for California pears in the Eastern cities has been a partial relief for the past two or three years, but our product of most kinds has been rapidly increasing, and the crop of the present year will be greater in the access of the probable green fruit demand, than in any previous season.

We would say, then, to the fruit growers of the State, do not, as heretofore, push all your fruit into the San Francisco market, to be thrown by the commission merchant into the bay, and then complain that you can make no money in the fruit business. Rather prepare yourselves beforehand for the state of affairs that your past experience teaches you will be realized.

Put up your drying scaffolds or drying houses, and be prepared to dry all your fruit as it ripens, and only sell it in a green state when the prices warrant a good profit over and above expenses; or, if after a careful investigation of the facts in the case, you find that it will pay better to preserve your fruit in cans than to sell it green or to dry it, then prepare yourselves with the necessary cans and other facilities for saving it in this way. But do not, we beseech you, pursue the unreasonable and unprofitable course you have heretofore pursued to your own great loss, and to the great scandal of the State.

Process of Drying in the Sun.

There are many processes of drying fruits, the most common being on scaffolds in the sun. Perhaps no State in the Union has so favorable a climate for drying fruits in this manner as ours, and yet to succeed well by this process so that the fruit will command the highest price, some skill and considerable care is required. It is unnecessary here to describe the process—all are familiar with it—but we will call attention to a fact which none who would make a success of drying fruits in the sun, in this State, should overlook. It is that nine times out of ten, if fruit thus dried be packed away without the necessary precaution of scalding, will be ruined with worms in less than one month after the packing. We would therefore lay it down as a rule always to be followed: When your fruit of whatever kind is sufficiently dry, dip it in boiling water for at least half a minute, after which again expose it to the sun or place it in an oven until the surface water has been evaporated. It is then ready to pack or send to market. Besides insuring against danger from worms, this scalding will greatly improve the quality of all dried fruit however it may be dried.

Artificial Processes.

A process invented and patented a few years ago in Maryland has been used in this State very successfully. The machinery used consists of a tunnel five feet square and fifteen feet long, in which the fruit, after being prepared by peeling, etc., is placed for drying on shelves, one above the other. The air at the bottom of the tunnel is then heated by means of pipes to about 180 degrees—at the top it will be above 120. By means of machinery the shelves are gradually passed down through the tube and when at the bottom having been dried sufficiently by the heated air, are discharged into a receiver ready for packing. This is a simple and quick method of drying, and it is claimed to be superior to the sun process, inasmuch as the fruit is not in the least fermented. All the natural flavor is therefore fully preserved, so that when cooked the fruit has all the freshness of green fruit.

Another process may be described as follows: The fruit is cut up in thin pieces by machinery, and then placed on galvanized wire cloth in a close room that excludes all dust and insects. A heated current of air is then forced through it by a powerful exhaust fan, which completes the drying process in from four to six hours. Fruit dried in this manner was exhibited at our State Fair last fall and commands in the San Francisco market about fifty per cent. more than sun dried fruits of the same varieties. This latter process is very economical and effectual, and we would recommend those who have any quantity of fruit to look to it.

Canning Fruit.

The popular mode of preserving fruit of late years is by canning and excluding the air so as to prevent the tendency to decay. Any means by which the air can be effectually excluded from fruit will preserve it in the same condition as it was in at the time the air is excluded, any length of time—even a thousand years. The most common vessel used for this purpose is the tin can. This is probably the cheapest, but for all fruits that have a considerable acidity glass is much better. Fruit acids act upon the tin and thus the fruit itself acquires a disagreeable tinny taste, and becomes actually injurious instead of beneficial as all fruit should be to health.—*Sacramento Record.*

Farmers, Grind Your Own Grain.

This is the advice the *Live Stock Journal* gives in the following language: "In a large experiment of feeding 6,000 horses, by the London Omnibus Company, it was found to take six pounds of grain less per day when ground than when unground. Every large farmer should have enough power to grind his grain; and for this power he has abundant use in threshing, cutting hay, straw and stalks, sawing wood and many other classes of work. It will take him no longer to grind at home the grain he feeds than to take it to the mill two, three or more miles; and, besides grinding it to suit himself, he can save the toll, which sometimes reduces the quantity more than the value of the grinding. But when the farmer decides to grind his own grain, let him purchase a small burr mill instead of an iron mill, which does not, in fact, grind, but only splits or fractures the grain into small, angular pieces—does not pulverize. There is nothing but a burr mill-stone that will really grind the farmer's grain as economy requires. It costs but a trifle more to purchase a small burr mill, large enough for a common stock, than an iron mill, and the increased value of the feed for one year would more than make up the difference. These mills are now made so simple that any farmer can run them, and the repairs will cost no more than those of iron. Western farmers, who feed thousands of bushels of grain every year would save enough in a single season to pay for power and burr mill to grind it. The toll charged by Western millers is usually much higher than that of Eastern millers, and the distance the farmer is required to travel is greater, so that the economy of grinding his own grain is so much the greater."

Through Freight.—During the month of April nearly 4,000,000 pounds of through freight went East from this State by the Central Pacific Railroad. Among this was 19,000 pounds of quicksilver, 45,020 pounds of borax, and 21,934 pounds of lead bars; ninety per cent. of all this went from this city.

Coal has been found in Lake County, Cal., six miles from Harbin Springs. The vein is said to be two feet wide and can be traced for half a mile.

The Willamette Woolen Factory, Oregon, is running full-handed and finds good sale for the articles manufactured. They buy all the wool they can get.

Useful Information.

Spiritual Photographs.

Photographers are acquainted with several different ways in which secondary images, some times called "spiritual photographs," may be made. If a double picture is desired, take a sensitive glass-plate which has served its turn as a negative—as many paper positives as may be needed having been taken from it—the film of collodion or other prepared surface is removed from it, and it may then be used for a wholly new photograph. But it is found that unless great care be used, some faint traces of the former picture still remain, and these may appear as a sort of ghostly attendant upon the figure forming the second picture.

One photographer in endeavoring to utilize an old plate which had fulfilled its duty as a negative, could not wholly erase the image, wash or rub as he might; there was always a faint ghost of the person accompanying any subsequent photograph taken on the same plate. Dr. Phipson relates that a friend of his received at Brussels a box of glass plates, quite new and highly polished, each wrapped in a piece of newspaper; a lady sat for her photograph, taken on one of these plates, and both the photographer and lady were astonished to see that her likeness was covered with printed characters, easily to be read—the ghost of a political article, in fact. In this case, actinic rays had done their work before the glass was exposed to the camera.

By another mode of manipulation, a photographer may produce a ghost-like effect at pleasure; a sitter is allowed to remain in the focus of the camera only half the time necessary to produce a complete photograph; he slips quickly aside, and the furniture immediately behind him is then exposed to the action of the light; as a consequence, a faint, or imperfectly developed photograph of the man appears, transparent or translucent, for the furniture is visible, apparently through his body or head. With a little tact, a really surprising effect may be produced in this way. As a third variety, one negative may be placed in contact with another, and a particular kind of light allowed to pass through it for a time; there results a double picture on the lower negative.

Curiosities of Water.

There is no material substance whose transformations are more marvelous, and whose relations are more complex and extensive, than those of water. A recent writer says:

"You take in your hand a hailstone, and it rapidly changes into a transparent fluid, which gradually vanishes, only to reappear, during frosty weather, in dew-drops upon your window, were it resumes, in delicate ramifications, its former crystalline solidity. You place another under a bell glass with thrice its weight of lime, and it soon melts and disappears, leaving behind it four parts instead of three of perfectly dry earth.

You subject an opal to chemical analysis, and find it but a combination of flint and water, the latter being to the former as one to nine.

Of the alum, the carbonate of soda and soap which you purchase of your grocer, the first contains forty-five, the second sixty-four, and the third, from seventy to seventy-three and a half parts of solidified water.

The clay field which you plow contains a ton of water to every three tons of soil; nay, the very air you inhale in ordinary weather holds diffused throughout every cubic foot of its bulk fully five grains of rarified water, which no more wets the air than the solidified water wets the lime or the alum in which it is absorbed."

If beefsteak be strongly pressed between two sheets of blotting paper, it will yield nearly four-fifths of its own weight of water, while the experiments of Berzelius and Dalton proves that of the human frame, not excepting the bones, one-fourth only is solid matter, the rest being water.

Dalton found, by experiment on his own person, that five-sixths of the food taken by day to repair the human frame is also water.

Of potatoes, again, no less than 75 per cent. is water, and of turnips, at least 90—a fact which, as has been remarked. "explains the small inclination of turnip-fed cattle and sheep for drink."

Artificial Coral.—This may be employed for various kinds of ornamentation. It is made as follows: To two drachms of vermillion add one ounce of resin, and melt them together. Have ready the branches or twigs peeled and dried, and paint them over with this mixture while hot. The twigs being covered, hold them over a gentle fire; turn them round till they are perfectly smooth. White coral may also be made with white lead, and black, with lampblack mixed with resin.

When fuel is burned in an open fireplace, at least seven-eighths of the actual or potential heat passes up the chimney unused. About one-half is carried off with the smoke, one-fourth with the current which flows in between the mantel-piece and the fire, and the remaining loss is represented by the unburned carbonaceous matter in the smoke.

Removal of the Cerebrum from the Lower Mammalia.—Notwithstanding the fact that any serious injury to the cerebrum (the upper portion of the brain, and that of the reasoning faculties and will) in man is attendant with instant death, if the same portion of the brain of fish, reptiles, birds, even common domestic fowls, and all the lower mammalia, be removed they experience but very little diminution in their powers of movement. Carp and frogs continue to swim as well as before; a pigeon when abandoned in the air flies to the ground, setting lightly on its feet; whilst a rabbit runs away when irritated, performing these movements with no appreciable difficulty, and with only a slight evidence of weakness. The weakness becomes much more noticeable when the operation is performed on a dog, though it is less marked in proportion as the animal is a young one. An adult dog deprived of its cerebral hemispheres is however, no longer capable of maintaining the erect position, though it can still move its legs freely whilst lying down.

A case of this kind attracted much attention at Woodward's Gardens, in this city, a few years since, where a what was callled a "headless rooster" was exhibited for some months, for the gratification of the morbidly curious.

Sciences and their Use.—Where screws are driven into soft wood, subjected to considerable strain, they are very likely to work loose; and many times it is very difficult to make them hold. In such cases we have always found the use of glue profitable. Prepare the glue thick; then immerse the screw, and drive it home as quickly as possible. When there is some article of furniture to be repaired, and no glue is to be had handily, insert the stick, then fill the rest of the cavity with pulverized resin, then heat the screw sufficiently to melt the resin as it is driven in. Chairs, tables; lounges, etc., are continually getting out of order in every house; and the time to repair the break is when first noticed. If neglected, the matter grows still worse, and finally results in the laying by of the article of furnitnre as worthless. Where screws are driven into wood for temporary purposes, they can be removed much easier by dipping in oil before inserting. When buying screws, notice what you are getting; for there are poor as well as good kinds. See that the heads are sound and well cut; that there are no flaws in the body or thread part, and that they have good gimlet points. A screw of one make will drive into oak as easy as others into pine, and endure having twice the force brought against it.—*Ohio Farmer.*

Good Health.

How to Make Fat Folks Lean.

One of the most corpulent persons ever known was Daniel Lambert, of the county of Leicestershire, in England, who weighed five hundred and twenty-eight pounds. Persons whose normal weight is from one hundred and thirty to one hundred and sixty pounds, not unfrequently attain to the weight of two hundred and fifty to three hundred pounds or more. Barnum had a young girl on exhibition some years ago, whose weight exceeded four hundred pounds. But this increase of weight is not growth. Bulk is not necessarily development. Obesity means, simply, an accumulation of fat in the areolar tissue. Fat persons are often spoken of as being "very fleshy." Flesh and fat are very different articles; nor does flesh increase because fat accumulates. On the contrary, all abnormal accumulations of fatty matter are attended with corresponding diminution of flesh. Even the viscera—stomach, liver, heart, lungs, kidneys, etc., are smaller in fat than in lean persons or animals.

The immediate cause of obesity is defective excretion. Sedentary habits and constipating ingesta are the remote causes. Vital temperaments are more liable to accumulate fat than mental or motive ones; for the reason that the viscera of organic life are larger and nutrition more active. For this reason, also, women are are more inclined to obesity than men, other things being equal.

A fat person cannot be a perfectly healthy person, for the reason that the process of fattening is merely the accumulation of effete matter. For this reason, too, very fat animals —which bring the very highest prices in the market, and are preferred by epicures—are much inferior to lean flesh in nutritive value.

Among the articles which predispose to corpulency are broths, soups, sugar, and all starchy preparations; the latter being the principal ones. It is for this reason that carnivorous animals are never fat. Malt liquors are conducive to plethora, and thus indirectly conduce to obesity.

The remedial plan is as simple as are the causes. Drink only water, and that only according to thirst. Drink nothing at meals. Avoid all thirst-provoking condiments. Use no animal food except lean meat; nor fine flour in any form whatever. Bread should be made of unbolted meal, and without any yeast or rising of any kind. Fruits may be partaken of freely. Milk, butter, cheese and sweet-meats should be avoided.

Equally important is abundant exercise; not irregular and fitful, but steady and persevering. Occupation is better than play, for the reason that it is apt to be more systematic and persevering. Plain simple food and exercise will gradually work off the accumulated adipose matter, increase the volume of blood, restore the wasted muscles and viscera, and recover the normal state and size.—*Science of Health.*

Health.

Among our individual acquaintances, how few there are that appear to be in regularly fair health! Inquire of him who boasts that he "never had a sick day in his life;" this paragon, to find whom you must seek through hundreds, confesses to occasional "biliousness," or rheumatism, or corns. My experience, as medical examiner to the Craftman's Life Insurance Company, daily shows to me what a hollow mockery is the six feet, and brawny shoulders, and rosy face, and "round belly with good capon lined." One is shaky with his two or three cigars a day, which he is not man enough to omit; another seems bursting with rosy cheeks and health, which numerous glasses of brandy daily for years has but heightened; and his neighbor is pale and sodden and shaky from his meagre beer, or his sour wine, or his comparatively infrequent whiskey drinks.

This one eats no meat, and that one no vegetables; one works in dark and stifled rooms, and, after years of toil, is healthy and vigorous. The other lives in the sunlight, and draws fresh air from heaven with pain and anguish. And the sturdy, who seems to defy death, falls dead in the street, while the puny lives to boast of his superiority! Vanity of vanity.

But notwithstanding that it is apparent that we know but little in comparison with what may be known, is it not well without any vain assumption, or pluming ourselves upon this little—will it not be well to see what we do know, and, by recognizing the general laws of things, to aim at obtaining some particular rules for our own guidance? Shall not the chemist render useful service by carefully analyzing the objects before him, even if his "ultimate principles" are still lying before, like "new worlds to conquer?" Shall not the optician strive to increase the power of his instruments, even though the increased power of the glass but discovers two stars where but one was noticed before, and far beyond the furthest brilliant point before seen in the distant heavens the doubled lens but shows new worlds still stretching further from man's earth, and yet as near to God's heavens?

May not we, straining our eyes, not with the telescope at distant worlds, but with the microscope at the wondrous formations in our own frames—more wonderful because made in the image of God and containing an indwelling spirit, which the largest race, and, in some respects, the most educated upon earth, consider to be part and parcel of the great Creator of all—may not we, reverently and happily, aim to benefit our race somewhat, by gathering up some of the few recognized laws of our being, and by looking at health, strive to see what it is, and how it can be best obtained?

Remedy for Choking. — A correspondent writing from Mission San Gabriel, in referring to a method which we lately published, for removing an obstruction from a child's nose, by blowing through the mouth, sends the following experience in removing obstructions from the throat: Last fall a child in that neighborhood got a peach-stone into her throat, and was fast choking to death, when her mother took her up by the heels, held her head downwards, and almost instantly the obstruction dropped out upon the floor.

Another Case.—But a few days previous to the date of the above-mentioned note, a lady came rushing into the post-office, at El Monte, with her child in her arms, and choking with a piece of meat in her throat. The wife of the Postmaster, recollecting the case of the peach-stone, immediately caught the child by the heels, gave it a pretty severe shake, when out came the meat, to the great relief of the agonized mother, and the saving of the child's life. Our correspondent very properly thinks such incidents are worthy of are cord in the Health Department of the Press.

The Philosophy of Death.—According to the *Spiritualist*, spirits and mediums, clairvoyants and seers, all agree very closely in the descriptions they give to the natural process called death. The vital forces first quit the feet and lower extremities of the body, and those who have the power of spirit vision see a luminous haze slowly forming above the head, and connecting with it by a shining cord. Gradually, as the vitality of the body diminishes, the cloud above assumes a distinct shape, and the spirit form of the departing individual is seen lying in a state of insensibility above the prostrate body. At last the spirit awakes to consciousness, the silver cord still connecting it with the body is severed, and the newborn spirit quits the house in company with spirit friends and relatives who awaited his arrival. The spirit friends are often seen before life has entirely quitted the body, which is the reason why the dying so often talk of seeing departed friends around the bed.

Domestic Economy.

Strawberries.—The best use to make of this delicious first fruit of the year, is to pick and serve them on the stems, if possible, letting each one hull them for himself as he puts them one by one into his mouth. This is the nearest thing possible to eating them in the field or garden, which, of course, everybody knows enough to do when he gets a chance. These plans will be mostly available only to those who raise their own fruit. Much of this fruit which is brought to market is coarse and sour, and really needs cooking to make it palatable. Still, this cooking should be very slight, as the flavor is evanescent. Remember this in making puding sauces of strawberry juice.

Whether for cooking or not, they should never be washed, if it can be avoided. When it must be done, pour them, a few at a time, into a bowl of water, stir carefully with the fingers until as clean as necessary, skim out and lay on a sieve to drain, being careful not to muss them. They will hardly do to serve *au naturel* now. If for "sauce," hull them, putting them at once into the dish in which they are to be served, and sprinkling sugar upon them as you proceed. Handle them as little as possible, and that little as near to the time of serving them as may be. They are better picked before the sun is hot in the morning; but after that they should stand, with out being disturbed, until time to put them into sugar. The time they will need to stand in sugar depends on their sourness. The best kinds need little, if any, sugar, and that put on *after they have been dished out*—each one serving and suiting himself.—*Science of Health.*

What we Drink.—The Hollanders are credited with being the largest consumers of coffee in the world, and, next to them, the Belgians; but we can furnish statistics to show that neither of them compare at all with California in this particular. The annual consumption of coffee, per head, in the various countries named below is thus given by Dr. Schlosser, a Holland statistician: England, 1¼ pounds to each person; France, 2¼; Germany, 4; Denmark, 5½; Switzerland, 6; Belgium, 8½; Holland, 10½; United States, 7 pounds to each person. In 1868, we consumed in California 8,300,000 pounds of coffee. Estimating our population then at 500,000 it gives 16 3-5 pounds to each individual. But we have more than 100,000 Chinese and Indians who do not drink coffee; this leaves 400,000 consumers, with an allowance of 20¼ pounds to each person; or nearly twice the quantity, per head, consumed in Holland, and nearly three times as much as in other portions of the United States. The English are notoriously a tea-drinking people, preferring it to coffee. So far, this year, England has imported from China no less than 140,000,000 pounds of tea. Besides, the extent to which coffee is adulterated in England is almost unreliable. The daily allowance of coffee per capita to each person in the United States is about half an ounce, and in California one and a half onces.

The Bread of Life.—The London *Dietetic Reformer* shows, by scientific data, that wheat meal, which is cheaper than bolted meal (fine flour), contains one-third more nutriment than flour does from which the bran has been sifted. The adoption, therefore, of wheat meal instead of fine flour, as bread-making material, would be an immense saving, amounting to hundreds of millions of dollars annually. But this is an insignifiant matter when compared with the sanitary aspect of the question. Fine flour is not food at all, in the proper sense of the term. The elements of the grain which are separated in the process of bolting, are essential to perfect nutrition; hence, those who use fine flour are obliged to subsist mainly on other things, or lose their health; so that nearly all they expend for a fictitious "staff of life" is worse than thrown away. No one who makes baker's bread a principal article of diet can long maintain health, while all who use wheat-meal bread (unless it is fermented or adulterated in some way) can always maintain health with a very little addition of other foods, either fruits or vegetables. As we said, therefore, in our last issue, the laboring population will become independent whenever they learn to "eat to live."

A Cherry Pudding can be made by boiling one-half pint of rice half an hour in five times as much water, and then pouring it boiling hot into one pint of wheat-meal. Mix thoroughly, and place it in small spoonfuls in a nappy, interlaying it with one pint of cherries (or more, if not very juicy), and then steaming half or three-quarters of an hour. Serve warm in the nappy, trimming it with melted sugar, or sweetened cherry juice, or some other sweet sauce. This recipe can be used for other such small fruits in their season, as will bear cooking enough to do the wheat-meal. Half an hour is the least that will answer for that purpose; three-quarters of an hour is better.

White Wax.—To convert yellow wax into white wax, the former is boiled in water, spread out into thin layers, and exposed to the light and air. This is repeated until all the color is gone, and the wax remains pure and white.

Ink from Floors.—Ink spots on floors can be extracted by scouring with sand wet in oil of vitrol and water. When the ink is removed rinse with strong pearlash water,

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SAN FRANCISCO:

Saturday, May 31, 1873.

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SALT FOR WHEAT.—John Johnston applied a barrel of salt, 280 pounds, to fourteen acres of wheat, sowing it broadcast in the drills before the wheat was sown; the salted wheat was much plumper than that in the same field not salted; the straw was heavier, brighter, stiffer, and the heads larger and ripe five days earlier than the unsalted ten acres in the same field. Mr. Mechi, the celebrated English farmer, who has grown sixty bushels of wheat to the acre, top-dresses his wheat every spring with salt and guano and hoes it in between the drills.

Mr. Johnston afterwards put a barrel of salt to the acre of wheat with much better results than before with a barrel to fourteen acres; but Joseph Harris says salt has no effect on poor land that needs ammonia and phosphoric acid.

HOP MARKET.—The hop market is reported dull and quiet. Stocks in New York are very much reduced. From the interior of the State we learn that planting is going on to some extent and many old yards are being turned under. It is believed that the general acreage under hops is not likely to be materially increased, owing to the high price and scarcity of roots. One of the interior trade-circulars says that hops have wintered well as a rule throughout New York State; that while the old yards show many dead hills, as might be expected, the new yards coming into bearing will more than compensate for them, but will hardly be sufficient to make up the deficiency in the acreage of the country. It is the opinion among those who take pains to keep posted that the yards under cultivation cannot produce enough for the wants of the country, though they may yield a few thousand bales more than last season.—*N. Y. World.*

American Pomological Society's Fair.

We call attention to the circular of the above named Society, which we publish in this column. We trust that our local and State agricultural societies will see to it that our fruit has a representation at this fair this fall. Two years ago, when the fair of this society was held at Richmond, Virginia, through the exertions of the then Corresponding Secretary of the State Agricultural Society, we made a very creditable display of pears, apples, plums and grapes, and the California collection constituted the greatest attraction of the whole fair. It was very hard to bring those who looked upon our matchless bunches of White Muscat and Flame Tokay grapes, to believe that they were grown in the open air. Scarcely a paper of any note in the Atlantic States but copied full description of this exhibition from the Richmond papers, and through this exhibition California fruit obtained a world-wide reputation, and California itself gained many a valuable acquisition to its population.

In a private letter to our associate editor the president, M. P. Wilder says "we wish to get the circular in the papers as soon as possible. Will you do us the favor to have it appear in the RURAL PRESS which I read with a great deal of pleasure. It is one of the most able and useful agricultural papers that I take. We shall have a grand meeting and I hope you will as before, see that your society and State are well represented by your noble men and your noble fruits. Will you not be with us and act officially in the future? Our programme and premium list are in preparation and will be with you early in June.

AMERICAN POMOLOGICAL SOCIETY.

Fourteenth Session and Quarter Centennial Celebration.

WHEREAS, the American Pomological Society, at its last session, accepted the invitation of the Massachusetts Horticultural Society to hold its quarter centenuial celebration and bieunial session in the city of Boston, in 1873:

Therefore, in conformity with said acceptance, the undersigned give notice that the fourteenth sessiou of this National Association will be held in the hall of the Massachusetts Horticultural Society, Trement street, in Bostou, commencing Wednesday, September 10, 1873, at 10 o'clock, A. M., and continue for three days.

All Horticultural, Pomological, Agricultural, and other kindred associations in the United States and British Provinces are invited to send delegations, as large as they deem expedient, and all persons interested in the cultivatiou of fruits are invited to be present and take seats in the Convention.

The coming session will be especially interesting, commemorating, as it will, the termination of the first quarter of a century of the existence of the society, and it is believed will be one of the most important and useful that the society has ever held. On this occasion there will be brought together the best cultivators and fruits of our widely extended country, when may be examined and compared the fruits, not only of the climes of the North, but of the South, the West and the Pacific slope. It is therefore very desirable that every State, Territory and Province of America should be fully and ably represented in this Convention, thereby promoting the advancement of one of the great resources of our national wealth—the extension and perpetuation of the amicable and social relations which have heretofore existed among the members of the society—and the diffusion throughout the land of our deliberations, for the benefit of our constantly expanding territory.

It is therefore hoped that there will be a full attendance of deligates from all quarters of our country, thereby stimulating more extensive cultivation by the concentrated information and experience of cultivators, and aiding the Society in perfecting its catalogue of fruits. This is one of the prominent subjects which will come before the society, and we therefore respectfully urge the various State and local committees which have not already responded to the circulars of P. Barry, Chairman of the General Fruit Committee, Rochester, New York, to do so, with such infomation and lists of fruits as may aid in determiniug what varieties are best adapted to their several localities.

At this session the society will appoint the place for its next meeting and also decide what action it will take on the invitation to participate in the exhibition at the centennial celebration of 1876, in Philadelphia, and it is respectfully requested that members come prepared to express their opinions in regard to this subject.

Arrangements will be made with hotels, and as far as possible with the various railroad companies, terminating in Boston, for a reduction of fare, and of which notice will be given in a future circular. Similar arrangements can undoubtedly be made by the various delegations with roads in their localities.

Members and delegates are requested to contribute specimens of the fruits of their respective districts, and to communicate in regard to them whatever may aid in promoting the object of the society and the science of American pomology. Each contributor is requested to prepare a complete list of his collection, and to present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as early as practicable

The Massachusetts Society for Promoting Agriculture have kindly appropriated $500, and liberal sums have been promised by other generous patrons. See premium list.

An increased interest will be given to the occasion by the grand exhibitiou of plants and flowers by the Massachusetts Horticultural Society, which will occur at the same time.

Packages of fruits, with the name of the contributor, may be addressed as follows: "American Pomological Society, care of E W. Buswell, Massachusetts Horticultural Society, Boston."

All persons desirous of becoming members can remit the fee to Thomas P. James, Esq., Treasurer, Cambridge, Massachusetts. Life membership, $20; biennial, $4.

MARSHALL P. WILDER, President,
Boston, Massachusetts.
F. R. ELLIOTT, Secretary, Cleveland, Ohio.

Important to Farmer's Clubs.

We would call the attention of the officers of Farmer's Clubs, to the conditions upon which their clubs will be entitled to a distribution from the Department of Agriculture of its annual and monthly reports, seeds &c.

The following is an extract from the Commissioner's latest report of the list of Farmer's Clubs &c., in the United States:

"To aid in securing the beneficial results, which are anticipated from the earnest and efficient operation of these local societies and clubs, the Department furnishes to each one of them, with which it retains a correspondence, a limited number of its annual and monthly reports, and also an adequate supply of such seeds as it may have for distribution.

To entitle the club to the distribution of reports and seeds, the Commissioner states further, that it is necessary for the club to furnish to him for entry on his books, a statement (among other things) of its name and location; of the name and the Post Office address of the President and Secretary; of the number of its members, and its stated meetings; whether it has a library, &c.

Any club failing to send such information, will not be entitled to a place on the books of the Department, nor of course, to a share in the distribution of books and seeds. Attention to these regulations is the more important, because after the abolition of the franking privilege of members of Congress, on July 1st of this year; the Farmers' Clubs will have to depend on the Commissioner of Agriculture for books and seeds, much more than before.

Sheep and Wool Circular.

J. Bell & Son, breeders and dealers in pure Spanish Merino Sheep, in Brighton, Ill., have issued the followiug circular for 1873:

TO THE FLOCK MASTERS OF AMERICA:—The dark days are past and the clouds are gone. Sheepmen are no longer the butt of ridicule. The history of the past has been repeated; good judgment and perseverance has won. Sheep and wool find a buoyant market, and we feel the living light which two years ago our faith only dared say would come sometime.

We congratulate you all to-day, and especially our fine wool, brethren, to whom the outlook has been particularly gloomy, even the fashions forsook us, and with a large stock of fine wool and fine wool fabrics on hand, the demand was for coarse wool clothing goods, until our ruin seemed certain. Millions of sheep were sacrificed. Disgust seized us and a general rush out of the business followed—we stampeded.

The fine wool flocks especially have been depleted, not only in this country but in the great wool-growing regions of the world. Our flocks and fortunes followed our hopes, till the recollection of them is painful. A better prospect is before us to-day. There is a more intelligent inquiry upon the question of sheep and wools. Better sheep, better wool, and better prices warrant the increase and improvement of our flocks.

America is now going to take the lead in wool growing. Our pasture regions are immense and inexhaustible, and with such grasses, climate and wonderful adaptation, combined with the security of life and property our government affords, we shall raise more wool, better wool, cheaper wool than all the world besides. J. BELL & SON.

Brighton, Macoupin County, Ill.

If J. Bell & Son are right in their conjectures, there is a better time coming for the growers of fine wools in California, for we can successfully compete with the world in their production.

AUCTION SALE OF AGRICULTURAL MACHINERY.—We would call the attention of farmers and others to the extensive sale of agricultural tools and machinery in our advertising columns by J. C. Merrill & Co., the well known commission merchants of this city.

ON FILE.—Farm House Chat; Plan of a Financial Reformation; The Frostless District.

Subterraneous Irrigation.

EDITORS RURAL PRESS:—I notice that some of the farmers' clubs are discussing subterraneous irrigation, and as I think that this is a step in the right direction, I will give you some information that I have collected upon this subject:

Some three years ago, I had a wooden pipe, made of redwood boards, to carry water from my pump to a trough in my corral; this pipe was buried under ground about one foot, and as the water had to rise about 30 inches at the far end, to flow in the horse trough, there was considerable pressure on it; and when first made it leaked considerably. This was my first experience in subterraneous irrigation; I noticed that where the leaks occurred, that the ground was moistened not only vertically, but laterally, for some distance each side of the pipe; this was in a hard, tramped and constantly used path; I also noticed that the effect of this *rising moisture* was not only to wet the ground but it also made it loose and mellow, and that weeds and grasses near those leaks started up and grew up with great vigor.

It is well known that surface irrigation also causes a vigorous growth, but the difference consists in this, that whilst water rising in the ground has a tendency to loosen the soil, water sinking in the soil has exactly the opposite tendency of settling, and compacting the soil; it is well known that if land is not stirred after surface irrigation, it will dry out with great rapidity, whilst on the contrary, by the other, it will remain loose and mellow even after it becomes dry.

I saw at once that I had discovered the true secret of irrigation, and I devised the following plan for putting it in practice: Take of redwood boards, the first 3 inches, second 4 inches and the third 5 inches wide; nail the three and four inch boards together in the form of a V, using composition or galvanized iron nails; upon the top edges of this trough every ten or twelve inches, cut notches half an inch deep; and on top of the V place the 5 inch board, tacking it lightly to the others; in placing the trough in the ground, the V, which must be water tight, should be laid in a trench in the ground about two feet below the surface with the 5 inch board upwards.

It will be seen that water cannot escape from this trough, except as it overflows at the top edges; consequently it can be laid level, or with a slight inclination, and water will flow from one end to the other, without escaping. The object of the top board is to keep out the dirt, and by reason of its own weight and the pressure of the superincumbent earth, to permit the water to be turned into the trough from a tank of considerable elevation. The greater the pressure the greater the force with which the water will rush out of the notches on each side, and the wider the strip or belt of land it will irrigate. The proper length of these troughs, as well as the size, should be regulated by experience, as also the distance from each other at which they should be laid. I think that each one will wet sufficiently a strip of ten or fifteen feet in width, differing according to the nature of the soil in which it is laid. It is also my opinion that in this way the water would be very evenly distributed the whole length of the trough.

I find on our naturally moist land, that with deep plowing and subsoiling, nature supplies the subterraneous irrigation, and consequently there has been no necessity for me to try it here. On dry lands I consider it worthy of a trial; of course the ends of the pipe must be closed; the water can be conveyed into it through a pipe of either wood or metal; I think one tenth of the water usually required for surface irrigations would be quite as effectual, with the advantage that the quantity can be regulated exactly, which cannot be done by the usual plan. There will be little or no loss by evaporation, and if made of sound redwood they will last many years.

It is probably too expensive for general cultivation, but for lawns, shrubbery, nursery and market gardens, it is just what is wanted; and although the first cost is considerable, there is no labor required, except to turn on and shut off the water; this and the saving in cultivation, would soon repay it.

WM. R. OLDEN.

Anaheim, May 20, 1873.

Death Among the Calves.

A correspondent asks, Can any of your numerous readers tell me a remedy to prevent my calves from dying of congestion of the lungs. They are first taken purging a day or two then they begin to cough and gradually lose their appetite and after a week or so die. I have lost all that have taken the disease this year which is about one-half of all I have had (20 out of 40 head died). I learn the same disease is common all over the State, but not found East, I have had some die which run with their mothers all the time but most of them were fed by hand. I have had some of my cows effected with a weakness in the back and gave bad milk which I find fat pork to be a remedy for.

Shall we hear from others in relation to this disease, and naming a remedy.

RIPE CURRANTS.—This delicious fruit is becoming plentiful and cheap. Ten cents a pound secures the finest quality in the market. Their first appearance for the season we made a note of; it was on Wednesday, the 21st.

Dubois' Mower Attachment.

The accompanying cut represents Dubois' Mower Attachment. This is the device for lodged grain or grass—the one used for standing grain or grass being much smaller. This for lodged grain or grass consists of a small cast iron shoe fitted to the under side of the cutter bar, and in most respects like any other shoe, with the exception that it is just on a level with the top of the cutter bar. This patern has to be slightly varied to suit the different kind of mahine upon which it is placed.

The balance is alike on all machines, and consists of a ½-inch bar of iron bolted upon the under shoe at the point and also at the end of the cutter bar.

This iron projects forward three feet and a half; then is turned back and rises at an angle of about fifty degrees, and turns toward the body of the machine. A knife is placed upon this point near the ground, and rises with the same angle, and is about two feet long. The bar of iron first mentioned also projects behind the cutter bar two feet or more, curving all the way toward the body of the machine, and then runs directly to the cutter bar, where it is fastened by a bolt. The whole is housed with light galvanized iron.

The effect is this: The knife in front cuts through all obstructions in the line of the shoe, the curved iron in front turns it toward the body of the machine, and the hinder part completes the separation. The wire is attached to the curved iron in front, and attached to a standard on the body of the machine with a spiral spring wire. This is sometimes used and sometimes not, according to the character of the mowing. For standing grain or grass we use the wooden sweep, mounted on standards on the body of the machine, and the smaller device above mentioned.

The effect in standing grain or grass is that the heads of the grain or grass are turned toward the body of the machine before it is cut, and when cut drops nearly straight with the cutter bar, and that part behind the cutter bar moves it away from the standing grain or grass. When the mower has passed the sneath will be found to lie even and straight as if cut with a grain cradle, with the butts all toward the standing grain, and separated from it about one foot. From the many flattering notices that we have seen from the press, as well as from what we have seen, we regard it as a most valuable invention, and will no doubt do away entirely with all those devices heretofore used for the same purpose, and which have proved so entirely inadequate to the purpose for which they were intended.

The California *Agriculturist* for Sept., 1872, says of Dubois' Attachment to Mowers, that we have examined the working of these devices, both in standing and in lodged grain, no other grass being in season to cut on Mr. Dubois' farm at this time. In tall grain the sweep attachment laid the cut grain with the heads away from the standing grain *against a strong wind*, saving the labor of forking it away. We regard this invention as a very valuable one. It is just the thing desired.

The other device is a knife and mould-board attachment to be used in lodged grain or grass. It worked admirably, separating the swarth from the uncut grain as nicely as the best swarther can do in good standing grain or grass. We only wonder somebody had not thought of it before. Both inventions are simple but excellent, and seem to perfectly supply a want long and seriously felt.

We are pleased to notice this highly favorable opinion of a practical working test of one of our California inventions. Mr. D.'s patent was obtained through this office, and we hope he will reap a rich reward from his engenuity and enterprise.

A further trial will soon be made at Fruit Vale, Oakland, under the auspices of the Farmers' Club, timely notice of which will be given through the PRESS.

NURSERY INQUIRY.—H. D. Hester, of Galesburg, Ill., writes to us under date of May 17th, as follows: "Inclosed find P. O. order for five dollars, for which send RURAL PRESS, on terms as advertised last January."

"I am a practical nurseryman of fifteen years standing; am intending to locate in California next fall. If any of your readers have any inducements to offer, in the way of suitable land at moderate price, I would be glad to correspond with such, with a view to locating and carrying on my business."

Our correspondent will find the advertisements of those who are determined to sell their lands, in our columns.

MILLS SEMINARY.—We have received the Programme of the Annual Examination Exercises of this institution, held on Tuesday and Wednesday, May 27th and 28th, and Commencement Exercies on Thursday, May 29th. An unusual press of important business has prevented our attendance.

HORTICULTURE.

Orchids.

In our notice of the nurseries of Messrs. Miller and Sievers we observed that one of their houses was devoted to the cultivation of the orchids (*Orchidaceæ*). This with the Woodward Gardens' collection, is rather a new introduction into California on anything like a large scale of a very interesting tribe of plants. These are perennial herbaceous plants or shrubs, in temperate countries assuming a terrestrial habit, in warmer latitudes growing on trees *(epiphytes)*, or fixing themselves to stones. Their roots are fibrous or fleshy. Their stems are sometimes annual, sometimes perennial and woody; their leaves are flat generally sheathing and their flowers are irregular, extremely variable in form and often most gratefully fragrant.

The *Caleana Nigrita* is so cunningly formed as to capture insects. When the flower opens the labellum turns round within the column, and falls back, so that the flower being inverted it stands fairly over the latter. The moment a small insect touches its point, the labellum



DUBOIS' MOWER ATTACHMENT.

makes a sudden revolution, and thus makes prisoner any insect which the box will hold.

Orchids are found in almost all parts of the world, except upon the verge of the frozen zone, and in climates of excessive dryness; and with us the tropical kinds must be under glass, or in greenhouses. In Europe, Asia and North America they grow everywhere, in groves, marshes and meadows; but in the hot and damp parts of the West and East Indies, and other tropical climes they flourish in the greatest variety and profusion, clinging to the trunks and limbs of trees, to stones and bare rocks, where they vegetate amongst ferns and other shade-loving plants in countless thousands.

The *Orchidaceæ* are divided into 7 tribes. They make a deep impression on our minds. Their unaccustomed forms, their singular imitations of the flight of insects, of butterflies, of birds of another world, their brilliancy of colors and new perfumes.

Under the difficulties of our hot houses with their dry air, burning with the sun, the culture of Orchids for a long while was slow, but their fortunes for awhile doubtful, soon made a rapid advance, and injudicious imitation of the processes of nature, and at Woodward's Gardens and Miller and Sievers' conservatories, has served as a base here for a rational culture, which experience progressively tends to make perfect. Meanwhile, to understand Orchids well, and to appreciate properly the value of the processes of culture, which are recommended, and to apply them judiciously or to modify them according to circumstances, it is necessary to represent as well as possible the privileged countries in which they grow. Horticulture is no longer a routine, we cannot proceed at hazard and grope along; it is a science, whose laws are those of nature itself, and the study of nature is an essential condition of success in it.

In either Asia or America, it is the regions sufficiently elevated to enjoy a temperate climate, which are by far the richest in genera and species; at the same time there are many races of Orchids, of powerful vegetation and splendid appearance, which inhabit extremely warm, but extremely moist forests in Hindostan, Java, Sumatra, Borneo, New Guinea, etc.

Flowers.

In viewing the splendid and beautiful display of plants and flowers at our late Exhibition, the mind is naturally led to the subject of their cultivation. We are especially pleased with the plan of the managers of the Horticultural Society, in bestowing on children flowering plants, for them to take home and cherish; and the gifts awarded to them for their care and attention in cultivating their pets. In no better manner can children be trained and educated to loving flowers and the other beautics of nature.

How natural and beneficial to the human heart is this affection for flowers. Indeed, all love them—the young and old, the rich and the poor. In this way not even to the humblest need be denied the great enjoyment of having a few plants to cultivate; for they thrive as well in the cracked cup on the window-sil of the poorest, as in the porcelain vases of the wealthy. Even the most humble can scrape together a little earth, a few seeds, and brighten their lots or rooms with the pretty things, or they can go to the hills and fields and bring home the wild ones (which are so plentiful in California), with care and tenderness; they will soon repay them, and hold up their lovely heads with the proudest and rarest flowers in the land.

Farmers and fruit-raisers, let your paths and walks around your dwellings be bordered with appropriate flowers and plants; the latter are preferable — their beautiful and variegated foliage making a very pretty show. Seek rather to have a few of those that bloom freely and grow vigorously, than to have a great variety, for by this very little satisfaction can be obtained, as many of them possess no distinctive character or color, however pretty and curious they may be to the botanist.

Every housewife should have a few flowers to cherish and love—besides her children, and, also, for the sake of her children. It lightens her hard labor and duties, and soothes her cares—to give them a look, a thought, a drink of water. Her attention to the flowers has a soothing, calming influence.

> "Bless God for flowers;
> For the bright, gentle, holy thoughts they bre .the
> From out their odorous beauty, like a wreath
> Of sunshine to life's hours."

Give the children a little garden, and cultivate in them a love for flowers; it will influence them to be kind and gentle, and lead their thoughts to higher and purer aims.

> "God might have made the earth bring forth
> Enough for great and small—
> The oak-tree and the cedar-tree,
> Without a flower at all.
> He might have made enough, enough
> For every want of ours,
> For luxury, medicine, and toil,
> And yet have made no flowers.
>
> Our outward life requires them not;
> Then, wherefor had they birth?
> To minister delight to man—
> To beautify the earth:
> To whisper hope, to comfort man,
> When'er his faith is dim;
> For whoso careth for the flowers
> Will care much more for Him."

Oakland Farming, Horticultural and Industrial Club.

The meeting on Friday evening of last week, was an unusually interesting one. The attendance was good, President Carr occupied the chair. After the reading of the minutes of the last meeting, and the transaction of other preliminary business, President Carr called the attention of the meeting to a specimen obtained in a ravine near Livermore, being fragmentary portions of the jaw of the mastadon, one portion of which was in an excellent state of preservation. The Professor said that this fossil is found in the tertiary in this locality quite frequently, and explained how the jaw of the fossil mastadon differs from that of the fossil elephant, horse, camel, etc. The tooth of the mastadon is covered with enamel, while that of the fossil elephant, and like herbiverous animals, has a rough surface, like the grinders of all animals feeding on vegetables. The curious fossil was examined with interest by a number present.

The Secretary stated that Mr. Orrin Dubois, of San José, had invented a guard to be applied to mowing and reaping machines, and had, through Mr. Webster, invited the club to witness a trial of its operation at Fruit Vale, soon. On motion, Messrs. J. V. Webster, Sherman Day, and Begge were appointed a Committee to witness the operation and report to the club.

The matter of organizing a county Grange for Alameda county was next considered. A brief description of the organization and workings of the Napa Grange—its objects and principles—was read by Secretary Dewey, and, on motion a committee was appointed to consult with the farmers and others of Alameda county, relative to the forming of a local grange, with power to act in the matter of taking preliminary steps to that end. Following is the Committee: President E. S. Carr, C. Begge, C. H. Dwinelle, Sherman Day and A. T. Dewey.

The currency question was resumed and ably discussed by Sherman Day, Dr. A. S. Hudson, Mr. Dwinelle, Mr. Horner, Secretary Dewey and others. The views expressed by the several gentlemen were synonymous, with the exception of Sherman Day, who denied the proposition that money brought into California loses fifteen per cent. as soon as it touches California soil. It don't lose anything. A man leaving New York with $20,000, by bringing it into this State, instead of selling it in New York City, actually gains about one per cent. in the transaction. The United States money bears upon its face a lie. A dollar in paper is not a dollar. The paper dollar is a false denomination. The gold coin is the standard for a dollar. He opposed the introduction of currency into the State.

Dr. Hudson favored such introduction principally on the ground of bulk and convenience, as well as uniformity.

Mr. Day wanted to know why paper money, even with the goverment's "promise to pay" on it, was not worth as much as a gold dollar? No definite reply was given to this question.

President Carr then delivered his address. It was the same one delivered at the opening of the Horticultural exhibition in San Francisco, on the subject of "Gardens"—a most interesting and instructive lecture.

A resolution was passed inviting W. B. Ewer, editor of the PACIFIC RURAL PRESS, to address the club at its next meeting, which will be held on the evening of the 13th of June. —*Oakland Daily Torchlight.*

King County, Washington Territory.

EDITORS PRESS:—A resident of King county, and a farmer, I wish to say a few words of the advantages of this part of the world. I reside on the celebrated Lake Washington, which is a magnificent sheet of water, with an island in the center of four or five thousand acres. The lake is about thirty miles long by seven wide, bordering at the nearest point, two miles from Seattle, with an outlet of navigable water that runs through thirty miles of good farming land.

Farming is not carried on very extensively here yet, but the people are very enterprising, and are getting some fine farms open. We want capital here more than anything, and good hard working men and women—for if they come here they will have to work, for it is a new country and heavily timbered. Farming land is worth fifty to a hundred dollars per acre; wild land from two and a half to ten dollars per acre. It is plentiful yet at Government prices, by going back twenty miles. It produces well of hay—three to four tons per acre; potatoes from two hundred and fifty to three hundred bushels per acre. Wheat and oats do well, and most kinds of vegetables.

We have a good market at the coal mines and logging camps, and at Seattle. The country abounds with coal. There is one mine about five miles from here yielding from one hundred to one hundred and fifty tons per day. We have a very mild climate and a healthy one, and altogether, not a bad one for emigrants to come to. C. A. L.

Black River, May 7, 1873.

WILD BLACKBERRIES.—Ripe and luscious blackberries from the banks of the Sacramento river, were selling in this city on Thursday, May 22, at 20 cents a pound; and beautiful ripe tomatoes grown in the open air, at 25 cents a pound. Eastern Exchanges please copy.



The Bees.

The industrious bee gathering honey,
Peacefully tending his business calm,
Is an example for man, the tool of money,
Who in labor at times might find a balm.

The swarm, like some grand army,
But with intents different in meaning,
Come forth on the spring day soft and balmy,
A home seeking, to store the wealth of their gleaning.

Bnzzing around with quick motion,
Like some collector of unpaid debts,
He seeks in fleetness of motion
To find his store in flowers of gaudiest jets.

Going around in their endless flight
Among flowers in the green covered field,
Coming home loaded at night
With stores the stars of earth to them yield.

T. M. W.

Marthas and Marys.

Women are saving or producing. If they are ordinary women, their work is good merely for saving; if they have the flicker of the divine fire they can produce; but even if they are of the latter, they ought to be also of the former kind.

A man without practical faculty is a poor daft body that one looks at with mingled wonder and impatience; but a women without faculty is altogether wanting in one of her final causes of existence, No ordinary woman is worth much who cannot use her hands and her eyes; and the large proportion of people have only a very imperfect use of these organs. With a great deal of folly and rubbish intermingled, the Kindergarten system of education is so far valuable in that it teaches quickness and accuracy of vision, and dexterity of handling. We are too apt to think that things usually come by the grace of Nature, when they come only as the result of training. Eyes and hands, and indeed all our senses and faculties which seem to be instinctive, have to be educated into efficiency. We have them in the beginning only potentially: in a very small extent indeed absolutely ; and they never came to their full use unless carefully trained. Not one person in a thousand sees in the fullest sense of the word. Look at a servant "laying a table," scan a woman's embroidery, measure the pictures on the wall, or put your finger on slabs and ledges of even a well kept house, and then see how many servants there are who place the things square, how much embroidery there is that is even, where the pictures hang absolutely square, and how many times have both mistress and maid glanced at the same slab or ledge on turning into the room, and not seen the dust lying on it.

Now, all Marthas should be clear-sighted and deft-fingered. A handy womau is a priceless blessing in a house, and one who has both eyes and hands keeps her home up to a standard of order that is worth more than loose-running, artistic beauty. A Martha who is not handy and not intrinsically orderly—a mere grubbing bit of untidy clumsiness—is an awful mistake, and offends in all directions—in poverty of soul and in grossness of sense—in want of ideal homeliness and practical beauty at one and the same time. Thoroughly useful women, with well-educated organs are priestesses in their own way and according to their own degree; and earnest-minded, aspiring women, Marys sitting with folded hands but with open souls, are priestesses of a higher order if of a less evident service. But to be neither—to be a mass of unproductive clay; too poor for wheat, too heavy for flowers, is to be a failure. And failures are faults.

With the immense amount of work on various sorts waiting for hands to do, there are useful tasks for everyone who chooses to seek the fitting kind. If clumsey hands will fumble wildly at making watch-springs, or delicate hands grasp the pavior's rammer, there must, of course, be bad work—cables for hair springs, and pebbles tapped faintly, instead of square blocks rammed solidly home. If Martha neglects her brooms and brushes and takes up with the æsthetics, and if Mary insists on cooking the family dinner, there will be confusion in the household, and all the work ill-done. And yet how often we see this—how often we see good honest housewives among women who disdain the simple homeliness into which they were born, to aim at all sorts of fine fashionable graces or more subtle intellectual airs?

Again, sometimes, but more rarely, we see slender, unhandy Marys playing at doing homely work—pretending to nurse a baby which they do not know how to hold; making-believe to be administering angels at a sick-bedside, and not knowing calomel from rhubarb; but just getting everything into a tangle aud a coil, till Martha sweeps down npon them and brushes them and the sun-flies away together. But where there is harmony between the labor and the laborers, then, and then only, is completeness. While Martha rules the kitchen, the household is well managed; when Mary reigns in the parlor the family is one of grace and sweetness.

The Wing Power of Birds.

The Duke of Argyll says, in a paper on the "Flight of Birds:"

There is a greater concentration of muscular power in the organism of birds than in most other animal frames, because it is an essential part of the problem to be solved in flight that the engine which works the wings should be very strong, very compact, of a special form and that, though heavier than the air, it should not have an excessive weight. These conditions are all met in the power, in the outline, and the bulk of the pectorial muscles which move the wing of the birds. Few persons have any idea of the force expended in the action of ordinary flight. The pulsations of the wings in most birds are so rapid that they cannot be countcd. Even the heron seldom flaps its wings at a rate of less than from 120 to 150 strokes to the minute. This is counting only the downward strokes, preparatory to each one of which there must be an upward stroke also, so that there are from 240 to 300 separate movements per minute. Yet the heron is remarkable for its slow and heavy flight, and it is difficult to believe, until one has timed the pulsations with a watch that they have a rapidity approaching to two in a second. But this difficulty is an index to the enormous comparative rapidity of the faster flying birds. Let any one try to count the pulsations of the wing in ordinary flight of the pigeon, or of a black cock, or of a partridge, or still more of any of the diving sea-fowl. He will find that though in the case of most of these birds the quickness of sight enables them to see the strokes separate from each other, it is utterly impossible to count them; whilst in some birds, especially the divers, as well as in the pheasant and partridge tribe, the velocity is so great that the eye cannot follow it at all, and the vibration of the wings leave only a blurred impression on the eye.

The body of a bird does not require to be much lifted by each stroke of the wing. It only requires to be sustained; and when more than this is needed—as when a bird first rises from the ground, or from the sea, or when it ascends rapidly in the air in many cases very violent exertion is required. And then it is to be remembered that lon gwings economize the vital force in another way. When a strong current of air strikes against the wings of a bird, the same sustaining effect is produced as when the wing strikes against the air. Consequently birds with very long wings have this great advantage, that with pre-acquired momentum, they can often for a long time fly without flaping their wings at all. The albatross, when rising from the sea, is described as "stretching out his neck, and, with great exertion of his wings, running along the top of the water for 70 or 80 yards, until at last having got sufficient impetus, he tucks up his legs and is once more fairly launched into the air." The contrast here described between the violent exertion required in the first rising and the perfect ease of flight after the first momentum has been acquired, is a striking illustration of the true mechanical principles of flight.

Love.—What a wonderful thing love is to a woman? How it helps her to know that some one is always fond of her, and rejoice when she rejoices, and sorrows when she grieves; to be sure that her faults are loved, and her face is fairer to one, at least, than faces that are more beautiful—that one great heart holds her sacred to its innermost recesses above all other women! She can doing anything, thus upheld. She grows prettier under the sweet influences, brighter, kinder, stronger, and life seems but a taste of heaven, and all her dreams are golden.

Don't Borrow Trouble.—When Cæsar was advised by his friends to be more cautious of the security of his person, and not to walk among the people without arms or any one to defend him, he always replied to these admonitions. "He that lives in fear of death, every moment feels its tortures; I will die but once."

Mistaken Kindness.

Our children are nursed too much in childhood. Bridget carries them when they should walk, helps them when they should help themselves, provides amusement when they should be left to seek it. Fortunate if the evil goes not deeper. If a father has attained eminence in business or a profession by earnest effort and unremitting toil, how apt is he to shield his son from a similar life and curse him with the gift of unearned gold! Rather let him bestow on his son his rich legacy of experience and inspire him with the highest motives of life.

A mother who has been trained to industry, whose mind has been disciplined in the best schools, exclaims, "My child shall not toil as I have labored." "I'll do this work for my children," said a mother, "for they may not always have a mother." That was the best reason for teaching them the tasks. If these were the utterances of mothers whose ideas rose no higher than the tucks and ruffles on their daughters' wardrobe, no surprise would be occasioned, for the fashion books afford a sufficient field of literature for such, and the education of the whole being is not often discussed in these works; but parents who know the valne of thorough mental culture, complemented with a practical application of it in every-day life, fail to bring their children up to a level with their attainments. They shrink from leading their children as they were led. The hill of science is less rugged for this generation than it was for the last; still it is an up-hill path to-day to all real knowledge. The short road to education is not the latest scientific discovery, nor are lessons in practical life duties gained by intuition.

The Gloom of Age.—A good woman never grows old. Years may pass over her head, but if benevolence and virtue dwell in her heart, she is as cheerful as when the spring of life first opened to her view. When we look upon a good woman, we never think of her age; she looks as charming as when the rose of youth first bloomed upon her cheek. That rose has not faded yet; it will never fade. In her neighborhood she is the friend and benefactor. In the church, the devout worshipper and exemplary Christian. Who does not respect and love the woman who has passed her days in kindness and mercy—who has been the friend of God and man—whose whole life has been a scene of kindness and love, a devotion of truth and religion? We repeat, such a woman cannot get old. She will always be fresh and buoyant in spirits, and active in humble deeds of mercy and benevolence. If a young lady desires to retain the bloom and beauty of youth, let her not yield to the sway of fashion and folly; let her love truth and virtue; and to the close of life she will retain those feelings which now make life appear like a garden of sweets—ever fresh and ever new.

Be Kind to All.—Many a little barefoot boy has wept all the joy from his heart, because no loving playmate said a kind word, no indulgent parent supplied his *great* want. Many a little girl has seen the glowing face of her Doll-baby crushed by an untimely fall, and wept herself sick, and no mother fathomed the cause. Many a man has passed through this world mourning, because no friendly smile greeted him, no trusting heart spoke words of cheer. Many a loving mother has watched the dying embers on the hearth, pining her life away, because *that being* who had pledged faithfulness and protection sought other joys, and only returned to make the place that of all *should be most dear*, joyless, comfortless and undesirable. Many a true man has mourned the light and giddy way of the one chosen in manhoods blushing rosy morn as partner of his joys, and marked with sorrows the preference given to those who can never share her love. Many a family has been torn asunder for want of true and upright dealing one with the other and single and alone thrust out upon a cold and unfriendly world to struggle, suffer and die.

Artificial Wants.—Bulwer says that poverty is only an idea, in nine cases out of ten. Some men with ten thousand dollars a year suffer more want of means than others with three hundred. The reason is, the richer man has artificial wants. His income is ten thousand, and he suffers enough from being dunned for unpaid debts to kill a sensitive man. A man who earns a dollar a day, and does not run into debt is the happier of the two. Very few poeple who have never been rich, will believe this, but it is as true as God's Word. There are thousands and thousand with princely incomes who never know a moment's peace because they live above their means. There is really more happiness in the world among working people than among those who are called rich.

A Crusty old Bachelor recently gave the following toast: "Woman—the morning star of infancy, the day star of manhood, and the evening star of age. Bless our stars, and may they always be kept at telescopic distances."

Young Folks' Column.

A Thorn in the Pillow.

A little girl went to visit her grandmother, who lived at some distance from her mother's and father's home. She seemed happy all day, for she had everything to make her happy. But when grandmother went to look at her after she was asleep, she saw tear-drops on her eye-lashes.

"Ah," said the old lady the next morning, "You were a little homesick last night, my dear."

"Oh no, grandmother," Mabel replied, "I could never be homesick here."

It was just so the next night, and the next. At length grandmother thought, as the child seemed troubled, that she would sit in the next room until she went to sleep. Presently, although Mabel was tncked up she began to rustle her quilt, and shake her pillow, and her grandmother heard a little sob; so she went to her and said:

"Mabel, my child, you have a thorn in your pillow; what is it?"

Then the little girl hid her face, and began to cry aloud. Her grandmother was very much troubled. At length Mabel answered:

"O grandmother, when I am alone here, I cannot forget how I said 'I won't mother,' and I cannot unsay it: and mother is good, and loves me so much, and—I was so naughty!"

And the tears streamed afresh down the child's cheeks. Here, then, was the thorn in her pillow, and she could not withdraw it. And so it will be by and by, with the little boy who is selfish and unkind at home. When he is away among strangers, he will think of the home of his childhood; and the recollection of his childhood; and the recollection of some unkind word or action will be a thorn in his pillow when he retires at night. And the little girl who does not care to help her mother now will find a thorn in her pillow when that mother sleeps in the grave.

A Grateful Cat.

A cat in a Swiss cottage had taken poison, and came, in a pitiful state of pain, to seek its mistress' help. The fever and heat was so great that it dipped its own paws into a pan of water—an almost unheard-of proceeding in a water-hating cat. She wrapped it in wet linen, fed it with gruel, nursed and doctored it all the next day and night after. It recovered, and conld not find ways enough to show its gratitude. One evening she had gone up stairs to bed, when a mew at the window roused her; she got up and opened it and found the cat, which had climbed a pear-tree nailed against the house, with a mouse in its mouth. This it laid at its mistress' feet and went away. For above a year it continued to bring these tributes to her.

Even when it had kittens they were not allowed to touch this reserved share, and if they attempted to eat it the mother gave them a little tap, "that is not for thee." After awhile, however, the mistress accepted the gift, thanked the giver with a pleased look, and restored the mouse, when the cat permitted her children to take the prey which had served its purpose in her eyes. Here was a refined feeling of gratitude remembered for months after, quite disinterested, and place above the natural instincts (always strong in a cat), toward her own offspring.—*Good Words.*

A Working Boy.—A boy, only 15 years old, in Blackhawk county, Iowa, whose father died three years ago, leaving his widow and son an eighty-acre farm burdened with a $1,000 mortgage, has taken whole and sole charge of the farm, hiring help only in seed-time, harvest and threshing, paid off the mortgage, purchased a harvester, a sulky plough, a wagon and a set of harness, besides an $80 sewing machine for his mother, and is now out of debt. He is a member of the Cedar Valley Agricultural Society, and attends school three months each winter.

Ribbons.—Of course all the little girls wear ribbons, but I wonder if they all know how to smooth them when rumpled. My plan is as follows. Take a modcrately hot-iron, sit it on the ironing board; then place the ribbon on the left side of the iron, and pull it carefully through underneath the iron. If the ribbon is not pulled too fast, and the iron is the right warmth, this will be found to be a much better way than simply rubbing the iron over the ribbon.

Tell Your Fault Yourself.—"I'll tell your mother of you," said one little girl to another. "Tell her," answered Maggie; "you cannot tell her anything naughty of me that I don't tell myself." That is right. Let every boy and girl tell mother when they do wrong, and I am sure they will keep from doing it.

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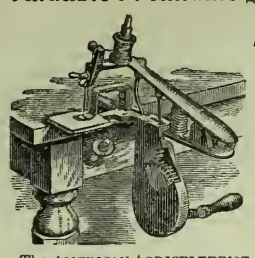
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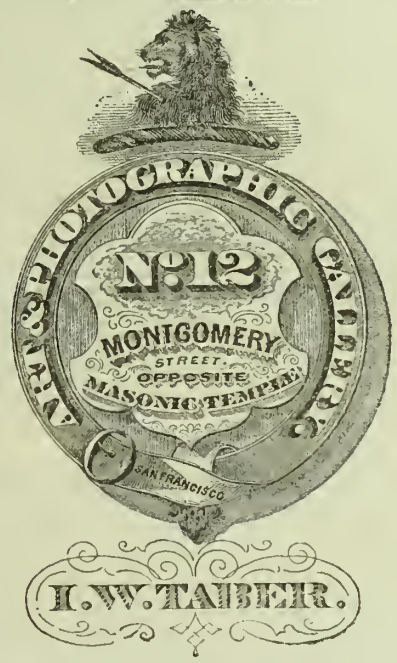
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[Continued from Page 341.]

hay, that should have made grain. And yet we cannot say there is a failure. It is partial, but uot complete. We see some good fields; and are satisfied that even in such seasons as this, thorough culture will secure a good result. Our farmers, however, cannot pay too much attention to the matter of thoroughly watering their grain fields. It should not be forgotten that a thorough flooding once in the season will secure a crop. If the requisite moisture be put in the ground, the sun will draw it up through the roots of the grain and make it grow.

YOLO.

Mail, May 22: HARVEST.—As has been the case with almost everythiug, the harvest this year will begiu one or two weeks earlier than common. Some of our farmers will commence heading barley next week, and the summer-fallowed wheat will be ready to harvest within ten days in many instances. This crop will yield a full return, while the early sown will not be quite so good. It is thought, however, that most of it will turn off half as much as the last year's crop, which will be much better than was expected one week ago.

One gentleman, who has about 500 acres of early sown grain informs us that one month ago he intended turning his stock into pasture. Some friends told him not to do so, it might rain. He let it stand, and now he says he will take fifteen to tweuty bushels to the acre. This is the case with nearly all the early sown. The summer-fallow will yield an average crop, while the late sown will be cut for hay, as that is all it is fit for.

Mr. Blowers, who irrigated, says that he will have a good crop. He also says that there is a vast difference in the growth and maturity of the kinds of wheat sown. The Chili Club is short and not good, while the Club wheat will invariably make a good crop, providing the moisture has been sufficieut to make it fill well. Farmers will note this fact.

Yolo has astonished the farmers, and many who thought best to cut for hay but kept waiting in hopes that more rain would come, will realize from ten to fifteen bushels to the acre, where they did not expect anything. Altogether, the prospects are very fine, and the gloom of two weeks ago has turned to smiles.

OREGON.

Oregonian, may 24: FINE GRASS.— Mr. C. W. Bryant, who resides on a farm uear Oswego Lake, laid on our table last week a bnnch of "red top" grass cut from one of his fields. This grass is over three and a half feet long, the stalks and heads being large and well matured. For this season of the year, this grass has attained a size and degree of maturity rather remarkable. Mr. Bryant cut from his farm a few deys ago, red clover, which had attained a growth of more than two feet in hight.

The Benton county farmers are building a warehouse at Spring Hill, on the river, three miles below Albany. It will have a storage capacity of about 14,000 bushels.

Transportation Difficulties.

Under this head we extract from the monthly report of the Department of Agriculture, Washington, the foregoing:

The excitement relative to high and discriminating rates for railway transportation is intense throughout the West, and the subject claims the attention of correspondents of nearly every State. The watering of stock, the fictitious increase of capital by numerons dishonest expedieuts, and the assumed necessity of paying dividends on this spurious capital, meet the severest denunciations of farmers who deem themselves plundered by an iuterest that could not exist without the products of agricultural industry, and which was itself built up through the aid of the Government, and for the development of national resources.

The feeling is generally one of indignation at manifest injustice, and calm determination to use legal and legislative methods to remedy the abuse, with occasional outbursts of threatened violence as a dernier resort. The demand is nniversal, both for legislation to secure justice in the case, and national laws to prevent undue and prohibitory discriminations between rates of local and through freights. Double-track freight-railroads to the sea-board, either owned or directly controlled by the Government, are demanded by many, to be run in the interests of the people, and not for excessive profit and extortion. Water routes for cheap transportation are also desired.

The farmers appear to be thoroughly aroused, and they have the power, rightly used, of enforcing their demands. It is important for their own good and the welfare of the country that they stand firmly for all that is right and submit to nothing that is wrong.

The following extracts, a few selected from hundreds, embody most of the various suggestions presented on the subject:

WYTHE, VA.—On accouut of what is called a discrimination betweeu way and through freights, it costs as much to market cattle, sheep, hogs, or grain, from here to Baltimore as it does from Memphis, which is three times as far.

FREDERIC, VA.—It costs as much to send a bushel of wheat, corn, etc., to market as it does a farmer who lives five hnndred miles west of us.

FREESTONE, TEX.—Cheap freights would almost entirely revolntionize farming in this state, as it now costs nearly as much expense to ship all kinds of esculents, grain, etc., as it does to produce them, thns depriving planters of a ready market.

LAKE, IND.—Co-operation or combination of farmers, if managed judiciously, may, to some extent, influence legislation in regard to rates of freights for trausportation, bnt the thing of most immediate importance is more railroads, and double tracks, betwcen Chicago and the eastern sea-board. The whole West has been for years filling up with railroads and producers to an almost limitless extent, while for the last twelve or fifteeu years hardly one single facility for transportation has been added between Chicago aud the East. More facilities and competition is what is most wanted.

RICHLAND, ILL.—I would suggest asa remedy, a full execution of the laws of the State. The State has made wholesome laws in regard to common carriers, and appointed three commissioners to attend to overcharges on freight. When a complaint is made to any one or all of these commissioners, the reply usually received is a copy of the law in regard to railroads, and the matter euds there, unless the shipper enters a suit against the railroad company, when he is taken through a full course of law, and, although he beats the railroad company in the suit, his loss by attorney's fees, of time, etc., amounts to more than what he gains: the result deters many from a suit, and the railroad company keeps charging as high rates as ever. As an illustration: D. Scott & Co., of Oluey, are large shippers of eggs to New York City. The freight on a barrel of eggs to Vincennes, thirty-one miles from Olney, is as much as from Vincennes to New York City, nine hundred and thirty-six miles. At Vincennes there are two roads leading east, one via Indianopolis, one via Cincinnatti, D. Scott & Co. have been at law with the Ohio and Mississippi Railroad for the past fifteen months, and the prospects is that it wont be settled in the next fifteen months. If the farmers would combine and raise a fund to oppose the railroad companies, it might do some good, provided the suits did not drag too slowly through the courts, or the railroad-trains quit stopping at our stations, as they have done at places on this railroad.

MOWER, MINN.—The farmer has no chance, for as soon as there is an advauce of any importance in the eastern markets the railroads raise their freights to correspond with the advance.

KANKAKEE, ILL.—The cost of sending a bushel of corn to Chicago, a distance of but fifty-six miles, is 10 cents. Price paid for the same here (Kankakee) is 22 cents. Unless some power controls these monopolies the people will assert their rights by other means than by legislation. They are creating a magazine by their exactions and persistency that must explode some day when they least look for it. The people of the State, not farmers alone, are now orgauizing to protect themselves, and they will do it.

CARVER, MINN.—There are many of the railroads in this State that refuse to ship the produce of farmers, in order to give speculators a chance to make money in combination with the officers of the railroads.

HENRY, ILL.—If the Agricultural Department would aid in urging Congress to lend its aid in constructing a double track railroad from the Mississippi River to the sea-board, say New York, with a charter compelling said railroad to carry freight at a uniform and reasonable rate, this would of itself compel other railroads to carry at nearly the same rates.

IROQUOIS, ILL.—The principle cause of discouragement is the combination of railroad companies to collect from one-half to three-fourths of the proceeds of our crop to carry the remainder to the consumer. The General Goverument must encourage manufacturing interests in the west, by this means bringing the consumer to where our corn, beef and pork are raised, and regulate the charges of carriers either by competing lines or statutory restrictions in charges.

MAHASKA, IOWA.—It costs to-day four bnshels of corn to carry one bushel to New York, whereas, if the railroad business was *honestly* managed, it would require only one bushel to take another there. There is no remedy for this trouble this side of the halls of Congress at Washington.

GRUNDY, IOWA.—Railroad tariffs are almost double what they were when most of us came here to settle. We must abandon raising wheat in this great graiu-field of the Northwest, and the world must look elsewhere for food.

Approaching Grand Sale of Stock.

[Reported for the PACIFIC RURAL PRESS.]

The sale of stock, advertised in the RURAL to take place on the 11th of June next, on account of the serious illness of Stephen B. Whippie, Esq., promises to be one of vast importance to the interests of horse and cattle breeders in California, such an array of thoroughbred and Hambletonian trotting stock never before having been offered to the public, while the short-horn and highly graded cattle are noted as some of the best milk producers in the State. Such stock, spread far and near by the coming sale, cannot fail eventually to prove of great benefit to the interests of California.

On arriving at the farm I was taken in hand by Messrs. Evans & Farrell, who at once proceeded to present to my admiring gaze the various and manifold attractions of stable and cowhouse, and to both these gentlemen my thanks are due for their courtesy on that occasion. The cowhouse was first visited, and the grand short horn bull, Billy Deans, inspected. Billy is a red and white, bred by Mr. Whipple, calved May 15, 1869, and is by Young Harrold, 13,171, out of Effie Deans, by Prince of Waica, 5,097. He is a very useful bull, as his calves will prove, one in particular on the ranch is as fine a hull calf as one often sees. Billy is now in his prime; he took the first premium at the "Bay District" Agricultural Fair, two years ago, and has not been shown since. Jemmy Deans is also a red and white bull, bred by Mr. Whipple, own brother to Billy Deans, a very useful animal, but hardly, perhaps, equalling his brother, allowance being made for the difference in age, he being calved June 10th, 1870. Several other hulls, two-year-old and yearlings, were next inspected. They are nearly all bred by the foregoing hulls, and all promise well, especially two of the yearlings, which deserve especial attention and will, no doubt, be heard of at future agricultural fairs. Stroling through the yard to the pasture beyond, about twenty-five milch cows were found calmly chewing their cud, and, perhaps, ruminating as to their future destiny when the fall of the auctioneer's hammer shall have entirely changed the course of their hithorto uneventful life. Effie Deans, third, was at once conspicuous by her well-bred head and curious horns, which, growing in toward the head, have to be sawn off at the points about every two years. Effie is a fine old cow, calved, 1862, and is by Resolution, out of Effie Deans, by Prince of Wales, 5,097. The herd is conspicuous for a number of her fine progeny. Effie Deans, fourth, fifth, sixth, seventh and eighth, are all fine animals and pure short horn Durhams, noted for the quality and quantity of their milk, and particularly worthy of the attention of those wishing to purchase good milkers. The remainder of the herd, pure bred and graded, are all good, and as far as could be ascertained, not an inferior animal among them. In an adjoining field I found a fine level lot of calves, very healthy and in good condition.

The Horses

Are so numerous that more than a casual glimpse at the best known of them would be impossible. First and foremost on the list is the grand chesnut stallion Whipple's Hambletonian, 13 years old, well known to all horse breeders in California. Hambletonian was by Guy Miller, he by Rysdyk's Hambletonian, dam Martha Washington, by Burr's Washington, her dam by Abdallah. This noted stallion has a record of 2:39 when five years old, and has sired the following famous trotters: Lady Blanchard, Ajax and Westfield, besides numbers of good ones dispersed all over the State. He was limited to thirty mares this season, and has his full number. Next on the list is Speculation, a bay stallion, 10 years old, by Rysdick's Hambletonian; dam, Martha Washington. He has never been trained, but has taken a considerable number of premiums, both at the Bay District and at the State Fair, and is a very favorite stud with the majority of farmers and horse raisers, and will have been visited by more than forty mares this season. Katie Mills, Oakland Maid and Lady Washington testify to the high qualities of his progeny. Hambletonian, Jr., a very handsome mahogany brown, is seven years old, and fast rising in favor as a sire. He is by Whipple's Hambletonian, out of Ashcat, she by Rysdick's Hambletonian, g. d. by American Star, g. g. d. by Abdallah; having thus a combination of Abdallah blood, which makes him very valuable as a stock horse. A number of very promising two-year-old and yearling colts belonging to him are at present on the ranch, several of which will be mentioned in their turn. Ajax, the well-known trotter, who placed to his credit a record of 2:29 in his match with Judge Ely's Alexander (a champion of the G. M. Patchen breed), is a very handsome, compact horse, dark bay, with black points, rising nine years old. He is own brother to Hambletonian, Jr. Ajax is at present a batchelor, but it is to be hoped that next year some good mares will be put to him. Tribulation, Speculation, Jr., and a sorrel stallion are all three-year-olds by Speculation, and much credit do they do him, promising to grow into fine, handsome studs, all three having taken a premium at the Bay District Association Fair. Tribulation and the sorrel stalllon are entered to trot in the Petaluma Colt-Stake.

The thoroughbred mares were next visited, and the handsome mare Keystone, with colt by her side, by Hambletonian, Jr., was led out for inspection. She is a fine, roomy mare, well adapted for breeding purposes, her foal being literally a beauty. She has a first-class pedigree, being by Imp. Lapidist (he by Touchstone out of Io by Taurus), dam, Blue Ribbon, by Revenue. Revere, a chestnut mare with colt, by Hambletonian, may be fairly praised. Revere is by imported Glencoe dam, by Harkforward. Belladonna, a handsome, racing-looking bay mare, 10 years old, is by imported Lapadist, out of Madonna, by Imported Yorkshire. Gilda, an eleven-year-old chestnut mare, by imported Mango, out of Juliet, by imported Sovereign. This mare has many fine points for speed and endurance, which she transmits to her progeny, as will be seen by the several fine colts bred from her, now on the ranch.

The thoroughbred colts and fillies followed, headed by a three-year-old bay stallion by Lodi, out of Revere—a clear case of multum in parvo, with a very handsome head and eye—a perfect horse in small compass. A brown mare, four years old, by Trovatore (he by Monarch, out of Madonna), out of Gilda, a very handsome filly. Bay filly by Lodi, out of Belladonna, a promising three-year-old. A handsome bay filly, three years old, out of Keystone, by Lodi.

After spending some time admiring these young flyers, attention was turned to the trotting brood-mares. Here a lover of horseflesh would indeed find himself *embarras des riches*, for Mr. Whipple, thoroughly understanding the first principle of breeding—"that more depends on the mare than the horse"—has been particularly careful in his selection. In fact, so good were all the animals, that it would be invidious to draw comparisons, the few named being selected for the high qualities of their offspring. Martha Washington, by Burr's Washington (he by Napoleon), dam by Abdallah; this mare is perhaps as noted as any in California, she being the mother of Whipple's Hambletonian, Speculation and many other noted horses. Ashcut, a very well made, useful bay mare, by Rysdyk's Hambletonian, dam by American Star, g. d. Abdallah, is the mother of Ajax and Hambletonian, Jr. Fly, a compact bay mare, the mother of Countess, Count and Miss Dighion. Emma Dubois, a very handsome chestnut mare, by a son of the Eaton Horse, from the State of Maine, dam by Abdallah. She is the mother of the handsome Lady Babcock and Lady Emma, perhaps two of the most promising mares in California. Lady Livingstone, a large grey mare with many good points, with promising stallion colt by her side, by Whipple's Hambletonian. She is by Gen. Taylor, out of the Lu Mills mare, and the mother of the noted Lady Blanchard, and many other good ones. Katy Mills, the matron of the ranch, is twenty-five years old, and the mother of a numerous and well-known progeny, it is said that all her colts have turned out trotters of a high stamp.

Among the trotting mares and geldings were many so well-known as to need little or no description. Harvest Queen stands first in the catalogue. She is a handsome bay mare nine years old, by Rysdyk's Hambletonian out of the Dubois mare. In 1871, she won two purses of $5,000 apiece—one at San Francisco, the other over the Alameda course, obtaining a record of 2:29¾. Star Queen has never been trained, but is fast and gentle. She is eight years old, a fine chestnut, and is by Whipple's Hambletonian out of the Dubois mare. Sarah Howe, a splendid bay seven year old, sired by Whipple's Hambletonian dam, the Livingstone mare. She is full sister to Lady Blanchard, who has a record of 2:26¾. The Count, Pat Gallager and Sorrel Tom are three very useful six year old cheatnut geldings by Whipple's Hambletonian. Lady Babcock is perhaps the flower of the flock, and has a record of 2:57 as a three year old. She is a very handsome chestnut mare six years old, by Whipple's Hambletonian out of Emma Dubois. Great things may be expected of this mare. G. L. Marshall, is a fine, handsome, chestnut gelding six years old, by Whippie's Hambletonian dam, young Diana. He has not been trained since he was three years old, but can show 2:30 gait. The five year-oids were as fine a lot as it is often one's luck to see, one of the neatest made and best looking being Crook nose, so-called from the bend in the lower part of the nasal bones. She is a good bay in color, by Speculation out of Young Diana. Miss Dighton, by Speculation dam, Fly, is also well worthy of notice. Pet, another Speculation filly of a high order, is fine grown and powerful. Kittie Mills, also by Speculation dam, Katy Mills, is a very free mover and very promising. The four year olds contain many good ones, among which a chestnut colt, by Speculation out of Mamie, a chestnut filly also by Speculation, and a chestnut colt, by Whipple's Hambletonian out of Mary Ann, will hold their own. Among the three year olds, a bay filly, by Speculation, dam, Lady Josselyn, and a chestnut filly by the same sire out of Lady Josephine, are well worthy of notice; but all the youngsters are of a very fine order. The two year olds and yearlings are so numerous and so good, that an attempt to pick out any particular favorite would be very hazardous: but we cannot help mentioning a chestnut colt, by Hambletonian, Junior, dam, Emma Dubois, a chestnut filly by the same sire, out of Keystone and a bay colt out of Gelda, also accredited to Hambletonian, Junior, they extremely promising. A bay yearling colt, by Speculation dam, Lady Josselyn, another Speculation colt out of Joseph Mare and a hay colt by Hambletonian, Junior. dam, Revere, are also well worthy of notice.

The Sale.

The sale, as before noticed, will take place on the 11th of June next, under the auspices of Messrs. Killip & Co., whose endeavors to meet the requirements of the public will, it is to be hoped, meet with success. A special train will convey would-be purchasers to the ranch and bring them home at the conclusion of the sale. Full particulars as to time, etc., will be published in the morning papers. The terms of sale will be cash under $500; above that sum, sixty days on approved city acceptances. GEORGE MARTIN.

The Army Worm---Its Origin and Mode of Destruction.

The army worm is making its appearauce in many parts of the State in large nnmbers, and threatens to become quite numerous and destructive.

A few words on its origin and the different modes of destruction will not be out of place. This worm passes the winter season in a pupa or larva state in the ground, and as the warm weather of spring approaches it works its way to the snrface, goes through the natural transformation incident to all this class of insects, and hatches or bursts its covering and comes forth a miller or moth about the size of a silk worm moth, or a little larger than the common house moth. This moth by instinct lays its eggs npon new and tender vegetation, where the young worm will find food adapted to its wants.

The facts above stated will indicate to every thiuking mind one of the most effectual modes of destrnction, and one that is recommended by entomologists.

It is this, to plow ground late in the fall, in cold climates, and thus expose the larvæ to the cold and kill them by wholesale while in that state in which there are fewest of them in number. While this mode of treatment will not be as effectual in this State as in colder climates, still it is believed to be one of the most effectual modes of destrnction even here that can be adopted, and we would recommend its practice wherever practicable, especially where the worms have been numerous the preceding season.

Another mode of destruction recommended and practiced by many is to roll the grounnd with a heavy roller. This may be made pretty effectual, and will not result in injury to growing vegetation upon meadow and pastnre lands, or upon the grain when small. In the Eastern States, they sometimes do great injnry to early sown wheat in the fall, and then the roller can be used to graat advantage, bnt here these worms have disappeared before we sow our winter wheat and do not appear again in the spring nntil after the wheat is so large that it cannot be rolled without injury.

Hence, to protect our crops here from destruction we have resorted in many instances with sncccss to the practice of running a ditch around them when threatened. This ditch shonld be dug so that the worm will fall into it easily from the side towards which the drove of worms is approaching, but on the opposite side, or towards the field to be protected, it should he abrupt, or better, the side shonld he made to project over the ditch so as to prevent the worm from crawling out when once in.

It is also recommended that every rod or so there be dug in the ditch holes in which those that attempt to travel along the ditch may fall. When the worms have already made an entrance into vineyards, especially when on warm, sandy land, it is recommended that the soil be plowed np freshly and that then each vine be jarred so as to precipitate the worm onto the grounnd in the heat of the day.

The heat of the snn and that of the sand will destroy large nnmbers before they can reach the shade or any vegetation for protection. It has been noticed that alfalfa fields are great harborers of these worms. This results from the fact that this grass presents to the moth the most favorable condition—a plenty of good tender food for the yonng worm—rather than any other reason.

Turkeys vs. Army Worms.

The Sacramento Beet Sngar Company have adopted a novel mode of getting rid of the army worms among their heets, and at the same time turning the worms themselves to account. They have already put three hnndred turkeys gobbling np the worms, and intend to turn from two to three hnndred more in the field in a few days. They have been compelled to pnrchase the tnrkeys this season, but iutend to enlarge or extend their business in the fnture by raising their own turkeys. The company are of the opinion that a diversity of *crops* is advisable, at least for the present emergency, and are in hopes that by the introduction of the turkeys their sngar crop will be considerably increased, and at the same time that they may realize some profit from the tnrkeys themselves.—*Daily Record.*

Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Diff. Bet. Mail & Tel	Diff. Bet. S. F. & Tel.
MAR 15....	1 80	2 89@2 91	.....	.....	1.10
" 17....	1 80	2 81@2 87	.....	.....	1.04
" 18....	1 80	2 81@2 87	2 87@2 99	9	1.04
" 19 ..	1 80	2 81@2 87	.....	.....	1.04
" 20....	1 80	2 79@2 83	.....	.....	1.01
" 21....	1 80	2 79@2 83	2 87@2 99	12	1.01
" 22....	1 80	2 79@2 83	.....	.....	1.01
" 24....	1 80	2 79@2 83	.....	.....	1.01
" 25....	1 80	2 79@2 83	2 83@2 91	6	1.01
" 28....	1 80	2 79@2 83	.....	.....	1 01
" 27....	1 80	2 79@2 83	.....	.....	1.01
" 28....	1 80	2 79@2 83	.....	.....	1.01
" 29....	1 80	2 77@2 81	2 81@2 89	6	99
" 31....	1 80	2 75@2 79	.....	.....	97
APR. 1....	1 80	2 73@2 79	2 75@2 91	8	96
" 2....	1 80	- -@- -	.....	.....	96
" 3....	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	2 75@2 91	7	93½
" 5....	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 76@2 82	2 79@2 67	10¼	96½
" 9....	1 82½	2 76@2 82	.....	.....	96½
" 10....	1 80	2 76@2 82	.....	.....	99
" 11....	1 80	2 76@2 82	2 97@2 97	9	99
" 12....	1 80	2 76@2 82	.....	.....	99
" 14....	1 80	2 76@2 82	.....	.....	99
" 15....	1 80	2 76@2 82	2 83@2 95½	9	99
" 16....	1 80	2 76@2 82	.....	.....	99
" 17....	1 81¼	2 76@2 82	.....	.....	97¾
" 18....	1 82½	2 76@3 82	2 81@2 93½	8½	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 76@2 82	2 85@2 98	13½	96½
" 23....	1 82½	2 76@2 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	2 89@3 02	10½	1.02½
" 26....	1 82½	2 83@2 87	.....	.....	1.02½
" 28....	1 82½	2 83@2 87	.....	.....	1.02½
" 29....	1 82½	2 85@2 89	.....	.....	1.04½
" 30....	1 82½	2 85@2 89	.....	.....	1.04½
MAY 1....	1 82½	2 85@2 89	.....	.....	1.04½
" 2....	1 82½	2 85@2 89	.....	.....	1.04½
" 3....	1 82½	2 83@2 87	.....	.....	1.06½
" 5....	1 82½	2 83@2 87	.....	.....	1.06½
" 6....	1 91½	2 83@2 87	.....	.....	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 90	2 85@2 89	.....	.....	95
" 10....	1 90	2 91@- -	.....	.....	1.01
" 12....	1 90	2 91@- -	.....	.....	1.01
" 13....	1 90	- -@- -	.....	.....	.....
" 14....	1 90	2 93@2 97	.....	.....	1.05
" 15....	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	.....	.....	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.03½
" 19....	1 90	2 95@2 97	.....	.....	1.06
" 20....	1 90	2 93@2 87	.....	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.07
" 22....	1 90	2 93@2 87	.....	.....	1.08
" 23....	1 82½	2 91@2 95	.....	.....	1.10½
" 24....	1 82½	2 91@2 95	.....	.....	1.10½
" 26....	1 80	2 91@2 95	.....	.....	1.13
" 27....	1 80	2 91@2 95	.....	.....	1.13
" 28....	1 80	2 91@2 95	.....	.....	1.13

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express," In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, May 28, 1873.

The fine weather that we have had lately though making the roads good for trade, has been bad for our hopes of a large crop. It was correctly estimated that our yield this year would equal 22,000,000 ceutals, now, however, it is estimated as low as 5,000,000 and 6,000,000 centals. This, however, is taking an extreme view of the case. Though doubtless the yield, in some places will be very considerably diminished, there is no reason for estimating it so low. It can, we think, be fairly set down at about the same figures as last year, 15,000,000 centals, with the same surplus for export—that is one of about 10,500,000 centals. The supply of tonnage will probably be about equivalent to that of last year, unless indeed that reports of a very small crop reduce it uuduly. There is however no reason to suppose that it will at any time exceed £4.10 or $21.87 per ton.

At this as an extreme, there would be at least 25 cents more per cental to go into the pockets of our farmers. This would make up for a good deal of the loss tn falling off of crop. The harvest in England is looking bad aud higher prices than those of last year may be anticipated in Liverpool so that, between probable lower freights and higher prices, the profits of last year may in the coming one be doubled. This will of course react favorably on every interest of the state, and the dull times, the heiritage of two or three bad years will at last pass away. A new system that of shipping freight to England for individuals has been inaugurated and will no doubt prove satisfactory. The "Blue Jacket," is the first vessel that sails under this arrangement aud during the coming season farmers who desire to ship grain to Liverpool on their own account will be able to do so. This is eminently satisfactory and should be takeu advantage of by associations of farmers. Here is work for Farmers' Cluhs and Granges of Husbandry.

The tone of the produce market during the week has not been favorable, save tn a few articles. This is caused by the near approach of the harvest, buyers preferring to remain till they see what developments will then take place. The first wheat is expected here in three weeks from date.

Receipts.

Receipts of Bay Produce have been lu uearly all cases save in that of Wheat, larger than those of last week, holders being anxious to get rid of last season's residum. Receipts of Flour have been slightly in excess of those of last week; those of Wheat about four-fifths of those of last week; those of Barley nearly double; those of Oats insignificant; those of Potatoes nearly double; those of Onions slightly increased; those of Beaus nearly three times those of last week; and those of Bran nearly as much in excess. Receipts of Middlings also increased, while those of Wool decreased one-half; those of Hides, one-third; those of Hay more than doubled; aud those of Wine slightly increased.

Receipts of Bay Produce to date aggregate 1 0,81b quarter sacks of Flour; 40,687 centals of Wheat; 9,774 do of Barley; 85 do of Oats; 8 do of Rye; 9,429 do of Potatoes; 545 do of Onlons; 3,184 do of Bran; 235 do of Middltngs; 2,667 bales of Wool; 685 Hides; 1,936 tons of Hay; 24,730 gallons of Wine; 40 do of Brandy; 1 cental of Mustard Seed; 57 do of Corn; and 280 do of Beans.

Receipts of Wheat at Oakland Wharf were small, aggregating only 4,200 centals, or 210 car loads.

Receipts of Coast produce aggregated 8,009 centals of Barley, 637 do of Oats, 1,618 do of Corn, 3,502 do of Potatoes, 13 do of Flax seed, 24 Hides, 432 bales of Wool, and 9 pipes of Wine.

From Portland, per "Oriflamme" we received amongst other articles of Domestic Produce 191 Hides, 30 bales of Wool, 3,683 quarter and 830 half sacks of Flour, and 434 centals of Wheat; and from Seattle we received 22 Hides.

Barley.

Receipts this week mount up to 17,783 ceutals—nearly double those of last week—aud the market is much weaker, having receded during the week. We note sales of 1,200 sacks of Coast Feed at $1.20; 800 do at $1.25; 100 do of Bay Feed at $1.27½; 2,100 do of Brewing at $1.35; 2,000 do at $1.37½; 600 do at $1.42½; and 800 do at $1.50.

Flour.

Prices remain the same. There wore no exports last week, if we except that of 30,000 quarter-sacks to Chiua, per "Altona."

Hay.

There is considerable Hay comiug in uow, and tt is chiefly Wheat of pretty good quality. We note the following sales: 12 tons of inferior old at $11; 35 do of choice new at $19,75; a cargo of new clover at $12.50; 100 bales of common new at $11.50; 180 bales of Barley at $12.50; two small cargoes of common new at $12.75 and $13; 100 hales of ordinary old at $19; two tons of uow at $17 and $17.50; a cargo of fair at $17.50; and 100 bales of choice old at $22.

Hops.

No change in local market. Latest advises from New York report as follows: There is little business stirriug in new Hops. Brewers offers seldom reach holders views. Old Hops are still being exported principally on holders account. The English markets have been somewhat relieved of old American by sales aud thus afford opening for more. The dullness in the market is attributed largely to the backward season. Brewers claim to have sold only one-fourth the beer so far this season that they did last year. At the same time the quantity of beer ou hand is believed to be light, and when trade in it fairly opeus, there will probably be a good demand in Hops.

Oats.

Oats are very dull, and have falleu a good deal in prices. We note the following sales; 150 sacks of California at $1.85, 100 do of choice California at $2.00, 150 do at $2.07½, 550 do Oregon at $2.12½

Potatoes.

The new crop is comingland receipts, 9—12,391 centals are nearly double those of last week. At the same time pricos have gone up to a figuro nearly double those that prevailed a couple of weeks ago. The last of the Humboldt crop carried by the Coquelle. We note sales of 450 sacks of Humholdt at $1.40 to $1.70 and 100 do of Bodega at $1.80.

Wheat.

Very little of last season's crop now remains, the receipts last week being only two-thirds of those of the previous week. Prices have receded a great deal. Prices in Liverpool, as reported by the Associated Press and the Merchants Exchange, have receded 4 cents during the week, being now $2.91 to $2.95. Freights are about the same as those of last week. We note sales of 780 sacks of Fair, at railroad depot, at $1.80; 1,200 do of good shipping at $1.82½; 11,000 do of Club and Shipping at $1.85; and 500 do of choice milling at $1.95.

There are several vessels loaded for export, but only one sailed last week, the "Remingtou," with a cargo of 29,275 centals, worth $58,000.

Wool.

The Spring clip is now nearly all in. Prices rule one cent lower. The receipts have been nearly 1,000 bales larger than those of last year, though t iferior to those of 1871, the figures being to May 24th for this year 32,555 bales, for 1872—31,100 bales, and for 1871—37,400 bales. New York reports, state that California wool meets with a good demand, and fall buys from 17c. to 22½c. Boston reports state that the new clip of California coming to that market comprise a better article and that sales were made at from 25c. to 30c. Sales for the week include 55 bales of choice Nouthern; 69,000 lbs of good shipping and 349,000 lhs of mixed,

GENERAL MERCHANDISE.

There ts very little to report this week. Coffee aud Spices are firm. Plg Iron nominally keeps the same rates, but the only sales are small lots of frou 5 to 10 tons. Australian Coal has receded $1 per ton; Scranton, $2 per ton; and Charcoal 25 cents per sack.

Imports from foreign ports have been considerable, lucluding the "Green Jacket," "Lord of the Isle" aud "Iphigeuia," from Hong Kong, with Tea, Sugar and Rice; the "A. Fuller" aud the "Palawan," from Liverpool, with the usual cargoes; the "Margaret Crockard," from Tahlti, with Oranges, etc.; the "Emily," from Hamburg, with an assorted cargo; and the "D. C. Murray," from Honolulu, with Sugar, Wool, Hides, etc.

Exports have been very small, includiug ouly the cargoes of the "Wellington," to Nanalmo; the "Remington," to Liverpool, and the "Altona," to Hong Kong, with Flour, etc.

Leather Market Report.

[Reported for the PRESS by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, May 28, 1873.

The demand for Domestic Skins and Sole Leather continues light at old prices. The same may be said in reference to French Skins, except that they have an upward tendency.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Conntry Leathsr, ₱ lb	25@28
Stockton Leathsr, ₱ lb	28@29

Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	66 00@ 72 00
Beaumerville, 15 Kil	60 00@ - -
Ogeran Calf, ₱ doz	54 00@ - -
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Shsep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Shesp Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25@ - -
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00@ - -
Harness Lsather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Lsather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	21@ 25
Wax Side Leather, ₱ foot	17@ 19
Eastern Wax Leather	26

GENERAL MERCHANDISE.

BAGS.

Eng, stand, Wh't	14½@ 15
Flour Sacks ½s.	13½@ 16
" " ¼s	8½@ 9½
Stand. Gunnies..	17 @ 17½
" Wool Sacks.	60 @ 62
" Barley do...	16½@ -
Hessian 15-in.gds	12 @ -
do 60	17 @ -
Burlaps, yard....	11 @ -

CANNED GOODS.

Asst'dPis Fruits in 2½ lb cans.	3 00 @ -
do Tabls do..	3 75 @ 4 -
Jams & Jellies	4 - @ -
Pickles ½ gl..	3 25 @ 3 50

COAL—Jobbing.

Australian, ₱ton	13 —@14 —
Coose& Bel. Bay.	8 50 @ -
Seattle	11 00 @ -
Cumberl'd, cks.	26 00 @ -
do bulk	22 50 @23—
Lehigh	20 00 @ -
Liverpool	11 00 @12—
West Hartlsy	14 00 @16—
Scotch	12 00 @14—
Scranton	15 00 @ -
Vancouver's Isl.	12 00 @14—
Charcoal, ₱ sk	75 @ -

COFFEE.

Costa Rica per lb	20 @ -
Guatemala	20 @ -
Java	@ 23
Manilla	19 @ -
Ground in cs	27½@ -
Chicory	8 @ -

FISH.

Pac.Dry Cod,new cases	— @ -
Eastern Cod	8 @ 9
Salmon in bbls.	8½@ 9
do ½ bbls	8 00 @ -
do 2½ lb cans	4 50 @5 00
do 2lb cans..	— @3 75
do 1lb cans	— @3 50
Pick. Cod, bbls..	— @2 —
do ½ bbls.	— @ -
Cal. Smoked	— @ -
Herr'g, box	50 @ -
Mack'l, No.1, ½bls	00 @ 9 50
" Extra	— @14 00
" in kits.	2 50 @ -
" misss.	— @4 00
" ex. mess..	— @5 00

NAILS.

Assortsd sizs, lb.	5¾@ 9 -

OILS.

Pacifio Glue Co. Neat F't No. 1	— @ -
Pure	1 25 @ -
Castor Oil, No. 1	1 35 @1 40
do do No. 2	1 25 @1 30
Cocoa Nut	60 @ -
Olive Plagniol	5 00 @ -
do Possel	4 75 @ -
Palm	9 @ -
do Bagicalupi.	— @ -
Linseed	1 05 @1 10
China nut in cs.	75 @ 80
Sperm, crude	1 25 @ -
do bleached	1 90 @ -
Coast Whales	40 @ 45
Polar, refined	55 @ -
Lard	95 @ -
Coal, refined Pet	37½@ 40
Oleophine	37½@ 40
Devoe's Bril't	43 @ 45
Long Island	37½@ 40
Eureka	37½@ 40
Downer Ksrose'e	50 @ 52½
Gas Light Oil	37½@ 40

PAINTS.

Atlan. W. Lead.	11½@ 12
Whitening	— @ 2
Chalk	— @ 1
Paris White	— @ 3
Ochre	— @ 3
Venetian Red	— @ 3
Red Lead	— @ 11
Lithargs	— @ 11

RICE.

China No. 1, ₱ lb	7½@ -
do 2, do.	7¼@ 7½
Japan	7 @ 8
Patna	7 @ 7½
Hawaiian	8 @ 9

SALT.

Cal. Bay, per ton.	5 00 @15—
Carmen Island	18 00 @20—
Liverpool fins	25 00 @26—
do coarse	19 00 @20—

SOAP.

Castile ₱ lb	9½@ 11
Local brands	5½@ 7

SPICES.

Allspics, per lb	15½@ 16
Cloves	27½@ 30
Cassia	30 @ -
Nutmeg	1 00 @ -
Whols Pepper	— @ 27½
Ground Allspice	25 @ 30
do Cassia	45 @ 50
do Clovss	30 @ 35
do Mustard	30 @ 32½
do Ginger	25 @ 30
do Pepper	27½@ 28
do Mace	1 30 @1 50
do Coffee	— @ -

SUGAR, ETC.

Cal. Cube per lb	1 ½@ -
Circle A crushed	11½@ -
do granulatsd	11 @ 11¼
Golden C	10 @ -
Hawaiian	20 @ 22½
Cal. Syrup in bls.	52½@ -
do in ½ bls.	55 @ -
do in kegs.	60 @ -

TEA.

Oolong, Canton, lb	17 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant.	30 @ 42½
do Pingsuey	50 @ 90
do Moyune.	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune..	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TOBACCO—Jobbing.

Bright Navys	52½@ 60
Dark do	50 @ 55
Dwarf Twist	60 @ 65
12 inch do	60 @ 67½
Light Pressed	65 @ 75
Hard do	60 @ 70
Conn. Wrap'r	40 @ 50
Penn. Wrapper	35 @ 45
Ohio do	30 @ 40
Virgi'a Smok'g	60 @ 95
Fine ct che'g, gr.	8 50 @9 25
Fine cut chewing, buc'ts. ₱ lb	75 @ 90
Banner fine cut	9 25 @ -
Enreka Cala	8 50 @ -

DOMESTIC PRODUCE.

At wholesale when not otherwise indicated.

WEDNESDAY M., May 28, 1873.

BEANS.

Beans sm'l wh. lb	5½@ -
do, butter	5 @ -
do, large, do	5¼@ -
do, bayo	3 @ 3¼
uo, pink	3½@ -
do, pea	6 @ 6¼

BROOM CORN.

Per ton	$60@150

DAIRY PRODUCE.

Butter, Cal. frsh, lb	@ -
do, ordin'y roll	25 @ -
do, choice	30 @ 32½
do, new firkin.	@ -
do, pickled	28 @ -
do, New York.	28 @ 30
Cheese, Cal new	13 @ 15
do, Eastsrn	14 @ -
Eggs, Cal. fresh	28 @ -
do, Oregon	@ -
do, Eastern	@ -

FEED.

Bran per ton	27 50 @ -
Middlngs	30 00 @ -
Hay	13 00 @21 -
Straw	12 00 @ -
Oil cake meal	30 00 @ -
Corn Meal	35 00 @50—

FLOUR

Alviso Mills, bbl.	4 25 @6 00
California	4 25 @6 00
City Mills	4 50 @6 00
Commer'l Mills	4 50 @6 00
Golden Gats	4 50 @6 00
Golden Age	4 50 @6 00
National Mills	4 50 @6 00
SantaClaraMills	4 50 @6 00
Genss.e Mills	4 50 @6 00
Oregon	4 50 @6 00
Vallsjo Star	4 50 @6 00
Venus, Oakland	4 50 @6 00
Stockton City	4 50 @6 00
Lombard. Sac	4 50 @6 00

FRESH MEAT.

Besf, fr quality	7 @ -
do, sscond do	6 @ -
do, third do	3½@ 5
Veal	6 @ 7
Mutton	6 @ 6½
Pork, undressed	7 @ 7¼
do, dressed	9½@ 10

GRAIN, ETC.

Wh't Cal. c'st.	1 70 @1 75
do, shipping	1 7 @1 82½
do, milling	1 85 @1 90
do, Oregon	1 75 @1 82½
Barley, Dark C'st	1 20 @1 22½
do, Light	1 25 @1 27½
do, Brswing	1 35 @1 45
Oats, Coast	— @1 90
do, Light	2 00 @2 12½
do Omaha	1 90 @1 95
do Oregon	2 00 @2 12½
Corn, White	1 27½@1 30
do, Yellow	1 27½@1 30
Buckwheat	1 25 @ -
Rye	2 00 @2 25

HOPS.

California, 1871, lb	— @ -
do 1872	50 @ -
Eastern, 1872, lb	62½@ -

MISCELLANEOUS.

Beeswax, per lb	32 @ 35
Honey, choice	10 @ 22½
Los Ang. Honey	1½@ 30
New Onions	1½@ 2
Flaxseed	3 @ -
Canary do	4 @ 5
Mustard do, white	1½@ 2½
do, brown	2 @ 3
Alfalfa	35 @ -
Ky. Blue Grass	50 @ -
Timothy	35 @ -
Italian Rye	18 @ -
Perennial do	35 @ -

NUTS.

Peanuts per lb	3 @ -
Chils Walnuts	11 @ 15
Pecan nuts	16 @ 18
Hickory do	10 @ -
Brazil do	16 @ -
Coc'anuts, ₱100	9 00 @ -
Alm'ds h'd shs	10 @ 12½
do, soft	20 @ 25

POTATOES.

Sweet, per lb	— @ -
Humboldt	1 50@2 00
Monterey	—@ -
Tomales	1 50@1 80
New	1 75 @2 25

POULTRY & GAME.

Live Turkeys lb.	21 @ 22
Hens, per dz	8 50 @9 25
Roosters	6 00 @6 50
Broilers	3 00 @6 00
Ducks, tame	9 00 @10 00
Geese, per pair	1 75 @2 25
Hare, per doz	2 50 @3 50
Snipe, Eng., doz	2 50 @3 00
Rabbits	1 50 @1 75
Venison, per lb	— @ -

PROVISIONS.

Cal. Bacon, per lb	— @ 13
Eastern do	12½@ -
do sugared	— @ -
Cal. Hams	— @ 14
Eastern do	10 @ -
Cal. Smoked Beef	11 @ 12

WOOL, ETC.

Spring, short, lb	16 @ 18
do choice Nort	22 @ 22½
Burry	12 @ 16
Hides, dry	17 @ -
do wet salted	8½@ 9
Tallow	6½@ -

For the very Best Photographs go to BRADLEY & RULOFSON'S GALLERY, with au "Elevator,' 429 Montgomery street, San Francisco. 26v4--eowbp3m

FRUIT MARKET.

FRUIT MARKET.

Tahati, Or.	1000 40 —@45 —
Cal. do	— —@— —
Limes, ₱ M	— —@20 00
Cal. Lemons,	1000. 40 00@50 —
Bananas, ₱ bnch	4 —@ 5 —
Pineapples, ₱ dz	7 50@ 9 —
Apples, eat'g, bx.	— @ —
Cherries	10 @ 40
Strawberries	6 @ 8
Gooseberries	6 @ 7
Currants	15 @ —
Apricots	15 @ —
Pears, Eating	— @ —
Pomegran's, ₱100	— @ —
Grapes, Mission.	— @ —
Rose of Peru,.	— @ —
Blk Hamburg	— @ —

DRIED FRUIT.

Apples, ₱ lb	8 @ 9
Pears, ₱ lb	6 @ 9
Peaches, ₱ lb	10 @12½
Apricots, ₱ lb	— @—
Plums, ₱ lb	5 @10
Pitted, do ₱ lb	15 @20
Raisins, ₱ lb	8 @12
Black Figs, ₱ lb	20 @15
White, do	15 @20

VEGETABLES.

Cabbage, ₱ dz	.50 @75
Garlic, ₱ lb	— @—
Green Peas	2½@ 3
Green Corn ₱ doz	.25 @35
Marrowfat Squash per ton	7 50@—
Artichokes, ₱ lb	2 @ -
String Beans, ₱ lb	7 @10
Lima Beans	6 @ 8
Peppers dry	25 @ -
Okra	30 @35
Cucumbers. dz	1 50 @2 00

LUMBER MARKET.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$20 00
Rough refuse, ₱ M	16 00
Rough clear, ₱ M	32 50
Rough clear refuse, M	22 50
Rustic, ₱ M	35 00
Rustic. refuse, ₱ M	24 00
Surfaced, ₱ M	32 50
Surfaced refuse, ₱ M	22 50
Flooring, ₱ M	30 00
Flooring. refuss, ₱ M	20 00
Beaded flooring, ₱ M	32 50
Beaded floor, refuse, M	22 50
Half-inch Siding, M	22 50
Half-inch siding, ref. M	16 00
Half-inch, Surtaced, M	25 00
Half-inch Surf. ret., M	18 00
Half-inch Battens, M	22 50
Picksts, rough, ₱ M	14 00
Picksts, rough, p'ntd	16 00
Pickets, fancy, p'ntd	22 50
Shingles, ₱ M	3 00

PUGET SOUND PINE —Retail Price.

Rough, ₱ M	$25 00
Flooring and Step, ₱ M	37 50
Flooring, narrow, ₱ M	40 00
Flooring, 2d quality. M	30 00
Laths, ₱ M	4 00
Furring, ₱ lineal ft	1c
Rough, ₱ M	$25 00
Rough rsfuss, ₱ M	20 00

REDWOOD—Retail.

Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	27 50
Tongued and Grooved, surfaced, ₱ M	40 00
Half-inch Battens, M	27 50
Half-inch surfaced, M	40 00
Rustic, ₱ M	42 50
Battens, ₱ lineal foot	1
Shingles ₱ M	3 50

San Francisco Retail Market Rates.

WEDNESDAY NOON, May 28, 1873

FRUITS, VEGETABLES, ETC.

Apples and Pears aro out of the market. Cherries, Gooseberries, Blackberries and all the small fruits are coming in plentiful. First crop of Strawberries is out, aud the new crop is coming in. The supply of vegetables in season is very large.

Apples, pr lb	— @ —
Pears, per lb	— @ —
Apricots, lb	10 @ 15
PineApples, each	50 @1 00
Bananas, ₱ doz	75 @ —
Canteleups	— @ —
Blackberries	25 @ —
Cal. Walnnts, lb	— @ 20
Cranberriss, ₱ g	— @1 00
Strawberries, lb	8 @ 20
Raspberries, lb	50 @ —
Gooseberries	8 @ 15
Currants	20 @ 25
Cherries, ₱ lb	15 @ 50
Oranges, ₱ doz	50 @ 75
Limes, per doz	25 @ —
Figs, dried Cal.	12½@ 25
Figs, Smyrna, lb	25 @ 35
Asparagus, lb	8 @ 10
Artichokes, doz	25 @ 50
Beets, ₱ doz	20 @ 25
Potatoes, New ₱ lb	3 @ 5
Potatoes, sweet,	3 @ 5
Broccoli, ₱ pc	10 @ 15
Cauliflowsr, ₱	10 @ 15
Cabbage, ₱ doz	75 @1 00
Carrots, ₱ doz	20 @ 25
Celery, ₱ doz	75 @ —
Cucumbers, ea	10 @ 25
Tomatoes, ₱ lb	35 @ —
Green Psas	6 @ 8
String Beans	8 @ 12½
Cress, ₱ doz bun	20 @ —
Dried Herbs, lb	25 @ 35
Garlic ₱ lb	— @ 10
Green Corn, doz	50 @ —
Lsttuce, ₱ doz	20 @ 35
Mushrooms, ₱ lb	50 @ —
Horseradish, ₱ lb	— @ 25
Okra, dried, ₱ lb	50 @ —
do frssh, ₱ lb	— @1 00
Pumpkins, ₱ lb	2 @ 3
Parsnips, doz	20 @ —
Parsley	15 @ —
Pickles, ₱ gal	50 @ 75
Radishes, doz	— @ 25
Summer Squash	8 @ —
Marrowfat, do	3 @ 5
Hubbard, do	3 @ 5
Dry Lima, shl	— @ 10
Spinage, ₱ bskt	25 @ 50
Salsify, ₱ bunch	— @ —
Turnips, ₱ doz	20 @ 25
Rhuharb	6 @ 8

POULTRY, GAME, FISH, MEATS, ETC

Poultry is still plentiful, though not so much so as last week. There is a little more demand. Rabbits are scarce; so also are Hares, but thcre is only a small demand. Snipe are scarce. Salmon plentiful, but nearly all other fish are scarce. Salmon Trout are 62½c to $1.25, aud young Salmou 50c each.

Chickens, apiece	75 @ —
Turkeys, ₱ lb	28 @ —
Mal&CanvBk, pr	— @ —
Tame, do	2 50 @ —
Teal, ₱ doz	— @ —
Geese, wild, pair	— @ —
Tame, ₱ pair	4 00 @ —
Snipe, ₱ doz	3 00 @ —
Pigeons, dom. do	— @9 00
Wild, do	@2 50
Hares, each	37½@ —
Rabbits, tame	25 @ —
Wild, do, ₱ doz	3 00 @ —
Besf, tend, ₱ lb

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

MATTESON & WILLIAMSON'S

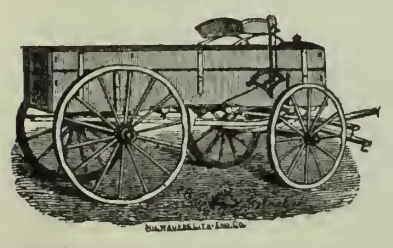
American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

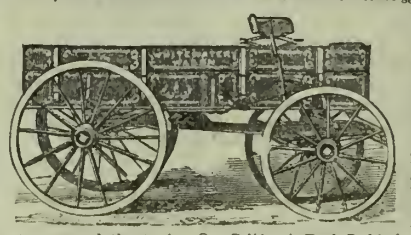
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THE WHITEWATER WAGON.

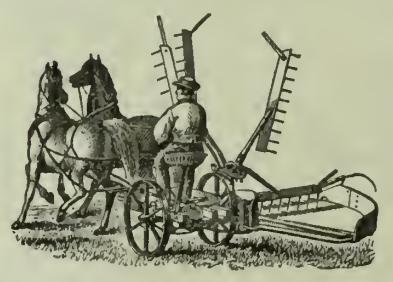
PRICES.—**Thimble Skein,** 3 inch, $100; 3¼ inch, $105; 3⅓ inch, $110; 3½ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



For the Harvest of 1873.

The Leading Machines.



BUCKEYE MOWER,
BUCKEYE REAPER,
BUCKEYE SELF-RAKE REAPERS,
HAINES' GENUINE HEADER,

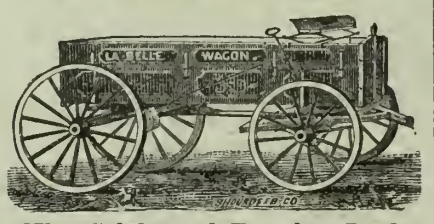
VIBRATOR SEPARATOR
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MOUNTED HORSE-POWERS,
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With a full stock of Agricultural Implements and Hardware.

MARCUS C. HAWLEY & CO.,
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$117, $122, $127 COMPLETE.



The Celebrated Regular Grade

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Are now being offered at the following VERY LOW PRICES, for gold coin, until further notice:

3-inch Thimble Skein Gears.....$87
3¼-inch Thimble Skein Gears.....$92
3⅓-inch Thimble Skein Gears.....$97
4-inch Thimble Skein Gears.....$113 and $120

Including Single and Double Trees, Neck Yokes, Stay Chains, and Wrench. Eastern Bed and Seat, $20; Stake, Rack, Bed and Seat, $30; Roller Brake, $10; Truss Braces $5. Wagons fully warranted and shipped to any point on the coast. Now is your time to buy the Best Wagon on the Pacific Coast for the least money.

E. R. FERRIS & CO.,
Corner Ninth and K streets, Sacramento.
May 10, 1873. 20v5-2t-eow

BAKER & HAMILTON,

SACRAMENTO AND SAN FRANCISCO,
Importers of
HARDWARE,

Agricultural Implements, Harvesting Machinery, etc.

Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

Haines' Genuine Headers, Bain's Header Wagons, Bain's Farm Wagons.

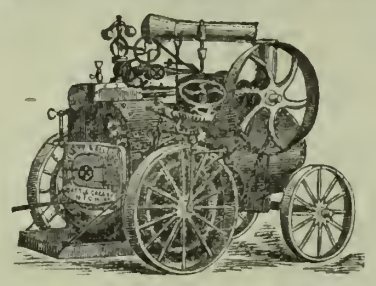
The celebrated PITTS IMPROVED THRASHERS and Horse Powers.
Portable Steam Thrashing Engines.
Hand and Horse Power Hay Presses.
Lock Levers; Hollingsworth and Whitcomb's Wheeled Hay Rakes.
Wood's Revolving Horse Rakes.
Hand Rakes, Scythes, Snaths, Forks, Shovels, Baling and Fencing Wire, Rope, Nails, Belting, Machine Oils, etc. A full stock of SHELF HARDWARE.
EXTRA PARTS for repairing Harvesting Machinery.
Orders by Mail or Express will receive prompt attention. Send for Circular. Address

BAKER & HAMILTON,
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KELLER & CO.,

43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.
AGENTS FOR

CLAPP'S BRASS-BEARING WAGONS.



And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

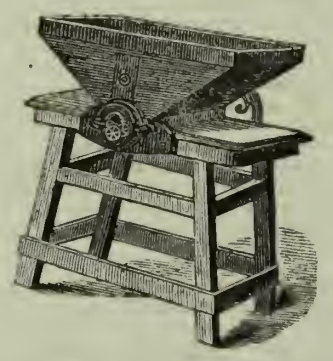
The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞Please call and examine. 17v4-1y

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THE CELEBRATED

CHALLENGE FEED MILL



For Farm use and Custom work. The only Practica Farm Feed Mill ever invented. Can be used with from one to eight-horse power, and grinds from 250 lbs. to one ton of harley per hour. Price of Mills from $75 to $100, according to size. Adapted to Wind, Water, Steam, or Horse Power. The grinding surface is adjustable, and can be replaced in fifteen minutes at an expense of one dollar to one dollar and a quarter. Over 3,000 now in use. Every Mill warranted to give satisfaction. For sale by all leading agricultural firms on the coast. For further particulars send for circular.

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With Hawley & Co., cor. California and Battery sts.,
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FIRST PREMIUM AWARDED at the State Fair of 1871; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

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$5 to $20 per day! Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments or all the time than at anything else. Particulars free. Address G. Stinson & Co., Portland, Maine.

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ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

HAS A DOUBLE MOTION,
Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

TREADWELL & CO.,
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At Low Price to Close Accounts.

ONE MARSH HARVESTER AND REAPER,
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ONE 10-HORSE IRON KING-POWER.

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Carpets, Oil Cloths, Etc.

THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

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A Day and Boarding School for both sexes; the only one on the Pacific Coast where a thorough Academic and business education can be obtained.

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MRS. A. M. GATES, or
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WARNER & SILSBY

Manufacture all sizes of

Bed and Sofa Springs,



Which they offer to the trade at reduced prices; also the celebrated **Obermann Self-Fastening Bed Spring.**

Any man can make his own Spring Bed with them by attaching them to the slats of any bedstead.

No. 147 New Montgomery Street, corner of Natoma, San Francisco. 12v5-3m

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Strawberry Baskets—The Best Yet Out.

A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of basket. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into paper bags. SWAN & CO. are ready to make 20,000 per day.

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Sacks! Sacks! Sacks!

All farmers wishing to secure cheap and durable Grain Sacks will find it to their interest to call on us before going elsewhere.

KOHLER, McDOUGALL & CO.,
Bag Makers, 221 Davis st., one door south of Clay,
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FANCY POULTRY,

OF ALL CHOICE BREEDS.

Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
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PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

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GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The undersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,
STOCK AUCTIONEERS.
209 Sutter street, San Francisco. m15-tf

TO DAIRYMEN, OWNERS OF HORSES, AND STOCK DEALERS

We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent.; and the report further says that if the "Farmers would note the differences in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and same at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

The Meal can be had of the HAY AND GRAIN DEALERS of the city, and all orders will receive prompt attention.

☞ Pure raw and boiled Linseed and Castor Oil constantly on hand; also, a very superior article of Metalic Paint—the best and cheapest in market. Address

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15v5—3m

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WOOL COMMISSION MERCHANTS,

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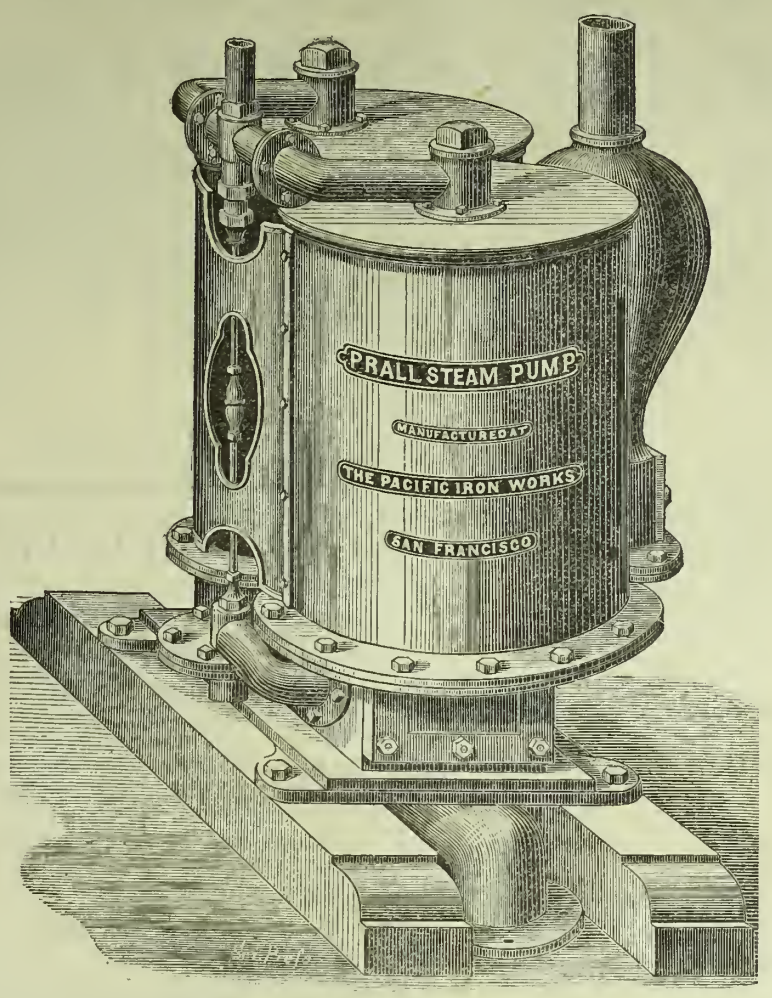


Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
10v3-3m

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The Cheapest, Most Reliable, Most Durable and Most Economical Pump in Use.



This remarkable Pump, though having been used extensively in the Western States for the past year, is now for the first time offered to the trade of the Pacific Coast.

It is adapted to the raising of water or other liquids, under all possible conditions where steam can be obtained, operating absolutely without machinery with more economy and less liability to derangement than any Pump in use. As a MINING PUMP its advantages are most obvious.

The steam is condensed instead of being exhausted into the shaft or tunnel. It is not effected by mud, sand or grit, having no working parts to wear or cut out.

It is economical of steam, because all friction is avoided, and the steam is made to do double duty, that of direct pressure and then by condensation, utilizing the atmospheric pressure to lift the water to the Pump.

It requires no lubrication nor any attention whatever.

For IRRIGATION and raising water for stock purposes, the Prall Pump is vastly superior to anything ever before invented.

It requires less steam to elevate water from 20 to 30 feet than would be necessary to move any other style of Pump doing no work.

It is so simple that any one of ordinary intelligence, however unaccustomed to machinery, can operate it.

They are constructed of seven different sizes, with capacities ranging from two to fifty thousand gallons per hour.

Boilers furnished with the Pumps when desired.

Manufacturing Agents, **Pacific Iron Works,**

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CHEAP WATER PIPE.

The undersigned has for sale about 8,000 feet of 4, 3, and 2-inch ASPHALTUM PIPE, smooth as glass on the inside, and which

Never Corrodes or Rusts.

JUST THE THING FOR CONVEYING WATER ON FARMS

For STOCK or DOMESTIC Purposes, or for Drainage.

The PRICE will be made LOW for the whole or any large part. Address

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Farmers, Teamsters and Livery Men,

You have all been notified through the columns of this paper, that this dreaded scourge to your stock is spreading on our coast; and we now advise you to be prepared with a remedy to meet it. On the first appearance, commence by rubbing the throat daily with the celebrated H. H. H. Horse Medicine, and give half a table spoonful in half a pint of water three times a day as a drench. When the disease begins to yield, decrease the dose to a teaspoonful and feed a bran mash often, which will cool the fever and act beneficially in arresting the debilitating effects of the disease. Be careful and not work them too soon.

WILLIAMS & MOORE, Proprietors,
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For sale everywhere. 12v5-3m

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HARDWARE.

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Agents for the best CHOPPING AX, POST AUGER, AND WRINGING MACHINE ever made. For sale cheap. Call and see.
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Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

N. GILMORE,

Importer and Breeder of

Angora or Cashmere GOATS

—OF—

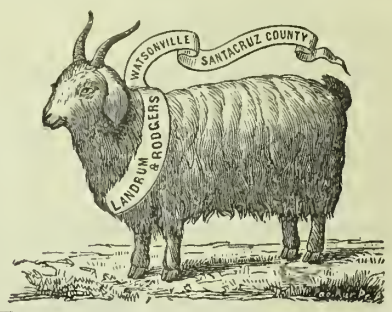
PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
5v3-eow-tf California.



We have 145 Pure Breed Angoras and 2,000 grades of 12 years' breeding to select from. Those wanting Bucks will find it to their interest to send for pamphlet on Breeding, and to examine our stock of Angora Goats and Cotswold Sheep. LANDRUM & RODGERS,
20v5tf Watsonville, Santa Cruz County, Cal.

THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down



SHEEP.



—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
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Jersey Cattle.

I have now for sale, and will be in regular receipt of,

Imported and Thoroughbred Jersey Cattle,

WITH AUTHENTIC PEDIGREES.

Their reputation for Butter stands unequalled.

R. G. SNEATH,
15v5-2m Menlo Park, Cal.

40 Thoroughbred Angora Goats for Sale!
Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

LOOK HERE!

A Fine Thoroughbred Berkshire Boar,
Two years old, FOR SALE VERY LOW by R. S. THOMPSON, Importer and Breeder of Improved Berkshire Swine, Napa, Cal. 20v5-2m

The Trotting Stallion NAUBUC,



BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderhilt in three straight heats in 2.25½, 2.25¾, 2.24¼. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25½, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Naubuc Farm, San Lorenzo, Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,
12v5-9t 637 California street, San Francisco.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

[From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents]

By Special Dispatch, Dated Washington, D. C., May 27th, 1873.

For Week Ending May 13th, 1873.*

Clothes-Line Reel.—John Brizce, Alvarado, Cal.

Hoisting-Whims.—Joseph C. Marshall, S. F.

Work-Box.—Elander Heath, S. F.

Feathering Paddle-Wheels.—Alexander Lefebore, S. F.

Hay and Cotton Press.—Wm. H. McBurney, Sacramento, Cal.

Railroad Switch.—John R. Adams, Saeramento, Cal.

Operating Steam or Air-Brakes.—Samuel F. Clouser, Salt Lake City, Utah.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the dats of issue.

Note.—Copiss of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.



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Original and Choice Engravings.
Editorials on Home Industries.
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THE NEW U. S. MINING LAWS.

The new Laws of 1872, governing the location and purchase of Placer and Quartz Mines and Agricultural Lands in Mining Districts of the U. S., printed in circular sheet, for sale at this office. Single copies, 25 cts Usual disconnt to the trade.

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The undersigned are prepared to extend every facility to Farmers who desire to ship their produce abroad.

We will advance liberally on any shipments, only charging interest at the rate of 5 per cent. per annum. Freight at the chartered price paid the ship, insurance and other charges at the lowest rates obtainable, thus netting the shipper the full value of his crops, while paying at the lowest interest for his funds. Any further information desired will be promptly furnished.

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It Costs No More to Keep Good Fowls than Poor Ones!

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Importer and Breeder of Blooded Fowls, and agent for the Poultry World, a monthly magazine devoted entirely to Poultry—tells how to keep Fowls for pleasure and PROFIT. Subscription only $1.25 per year. Address

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THURSDAY.

THURSDAY, - - - June 5, 1873.

AT 11 O'CLOCK, A. M.,

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SPECIAL SALE

—OF—

DODGE & STEVENSON'S

Celebrated Self-Raking

REAPERS

—AND—

MOWERS.

We will Sell, to Cover Advances, an Invoice

COMPRISING:

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These machines will be sold singly or with a privilege, thus affording to farmers a rare opportunity to provide themselves with one or more of these standard Machines at a bargain, in time for the incoming harvest.

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Mangel Wurtzel,	Long Orange,
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For Violin or Flute and Piano.

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For 2 Violins, or 2 Flutes or Violin and Flute.

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Easy Quartets for Violin or Flute, Cornet or Clarionet, and 2d Violin or Violincello.

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Choice Bred Fowls, and Eggs for Hatching.

I will spare a few EGGS from my Imported Stock of Poultry, consisting of

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SPANGLED GOLDEN AND SILVER HAMBURGS,
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—ALSO—

Chester County White Pigs, China Pigs.

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Seventh and Oak streets, OAKLAND.
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Incorporated Under the Laws of the State of California.

CAPITAL STOCK.....$150,000.00
Divided into 2,500 shares, of $100 each.

The subscription books of this Association will be open on the 24th of this month (May, 1873), at the present office of the Association, No. 10, Temple Block, Los Angeles, California, where copies of the By-Laws and Articles of Incorporation can be had.

President.....J. R. TOBERMAN.
Treasurer.....F. P. F. TEMPLE.
Secretary.....GEO. C. GIBBS.

Directors—George Stoneman, Thos. A. Garey, and Wm. Moore.

General Superintendent, F. M. Shaw.

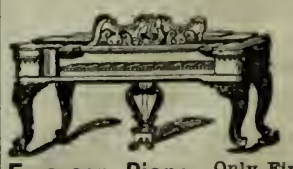
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From Fifty to One Hundred will be sold at very reasonable rates if sold in lots.

Purchasers are invited to call and see them at the ranch of J. J. FELT,
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Farmers, everywhere, write for your paper.

PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JUNE 7, 1873. [Number 23.

The Ætna Self-Rake Reaper.

The accompanying illustration shows the "Ætna" Self-Rake Reaper at work. The machine, introduced to the Pacific States this season, by the house of Treadwell & Co., is made up from the "Ætna" Mower (illustrated May 24), with the addition of the improved Self-Rake attachment. The machine possesses all the improvements of the new "Ætna" Mower, and is manufactured expressly for the Pacific Coast. Concerning this machine the manufacturer says:

"Much effort has been expended and costly experiments made in developing the excellencies of this class of machines. In California, above all other States, not only a good self-rake is required, but the very best machine in the conntry. It will not answer to alone do good work, but the greatest possible simplicity, lightness, and ease of operation must be secured, to answer the demands of the times. Our farmers want a self-rake that is strong and durable and under the control of the driver.

The "Ætna" self-rak accomplishes these results with less complication, with less power and less friction, and weighs 50 lbs. less than any self-rake attachment that has ever been successfully applied to a two-wheeled machine. It is constructed with but a single cam; the switches are arranged to work horizontally, and are so constructed that they cannot, in any possible position, catch on the arms. The switch is also automatically closed by the movement of the roller on the rake-arm, preventing two rakes from passing down in succession.

The rake-arms are bifurcated, each one carrying a rake and a beater, and the switch-controlling mechanism is above and inside the rake-arms, where it is easily managed, and entirely protected from accident. The entire construction of the rake is so simple and so compact, and at the same time so effective, that combined with the double-motion "Ætna" machines, they constitute what we now believe to be the best self-rake combined machines in the world."

The "Ætna" Self-Rake Reaper has two cutter-bars, besides the self-rake attachment, thereby securing to the purchaser a perfect mowing machine, cutting 4 feet 4½ inches, which, by the change of cutter-bar and addition of self-rake attachment, is quickly changed into the Self-Rake Reaper, as shown in the engraving, cutting 5 feet 6 inches. The facility of the change from mower to reaper, or *vice versa*, is one of the peculiar advantages of the "Ætna." The Reaper has the double motion, same as the "Ætna" Mower, which is claimed as the one great improvement of the year in this class of machines.

Messrs. Treadwell & Co. will be pleased to furnish circular price-list, or show any of our readers these new machines.



THE "ÆTNA" SELF-RAKE REAPER AT WORK.

LARGE LAND SALE.—C. S. Abbott, the great dairyman of Salinas City, recently sold his San Lorenzo ranch, containing 10,400 acres, to Mr. Edward Curtis, of this city. The price is understood to be $12.50 per acre. Mr. Curtis purchased it for Eastern parties, who intends cutting it up into small tracts and selling them to farmers of limited means, of whom there are many now on their way to California.

Dairying by Two Systems.

There are two distinct systems of dairying carried on in California, showing that there may be two right ways of doing a thing; for by both systems, excellent results are produced and it would be dificult to improve upon either. One system has its migratory peculiarities, in which large herds of cows are kept and fed upon the grasses of the great, lower plains and valleys, till the torrid heat of summer dries up the grasses into uncut hay; when a grand exodus of animals and men, with all the paraphernalia and trappings of a complete dairy establishment, is made for some elevated valley of natural and luxuriant grasses and clovers in the midst of the Sierra Nevada mountains.

Here, where the grasses are green the entire summer, and dashing trout-streams are leaping from surrounding hights and meandering through the valleys, the migrating dairyman establishes his summer's "stamping grounds," and with his family and animals around him enjoys more of true health-giving pastorial life in a single season, than is meted out to the immovable denizens of the lower valleys in a life time.

But the system has its objections in this, that however profitable may be the summer's campaign as a dairying enterprise, it can only be pursued at the expense of the semi-annual breaking up and sundering of all the ties that ought to bind the heart to the one sacred spot called home. The summer's fruits and garden's sweets that should surround the lower valley residence are neglected or wholly wanting, because there is no one at home to enjoy them, and there can be none of these in the mountains, because everything must be deserted and given up to solitude and the winter's snow for two-thirds of the year.

The Home System.

The opposite of the picture we have drawn is that in which dairying is carried on in districts where the qualities of soil and conditions of climate permit of the more usual method of conducting such enterprises. A home is established, to be the permanent abode of the family and all connected with the undertaking or its immediate management. Around that home are gathered and cherished all that can contribute to make home pleasant.

Fruit, shade and ornamental trees and gardens, convenient outbuildings, barns, sheds and dairy-house; substantial fences, inclosing fields of convenient size for judicious change of pasturage, the growing of grass and grain for hay, and the culture of some green crop, as corn sown broadcast, for tiding over the driest and most critical season of the year, are the chief matters that claim the local dairyman's attention.

Here and in this way he builds his paradise; out from whence perchance go daily, his children; the younger to the village or country school, and the older ones to the care and management of the stock, dairy-room, or growing crops. And we have a wide district of country in California just fitted for this kind of management and mode of living; and it can be found pre-eminently in Marin county and those other counties bordering more directly upon the ocean.

There, under the influence of the moist breezes, and fogs that nightly roll inland from the ocean, a wide belt of country is kept in almost perpetual green; whilst in the great interior valleys, separated from the former by the Coast-range of mountains, all is dried and withered save the deep-rooted trees. The dairymen of Marin county are probably the most independent of any equal number of men in the State. They make not only butter and cheese but large quantities of hay from grass or the straw of wheat, barley or oats cut green, which they sell direct, or feed to their cows for milk, or put it into beef; and thus with three ways of disposing of a single commodity, they hold the power in their own hands of disposing of the products of their labor to the best possible advantage. As between these two systems of dairying let the incoming immigrant choose.

One Thorough Flooding.

Previous to the present season we have almost invariably had our late spring rains to follow up those of mid-winter, securing to us a fair yield of the cereals. Our desire heretofore has been a sufficient *winter's* rain fall, and we were pretty sure of the "latter rains." This year has shown an exception to the rule, and we find ourselves minus the expected crops of grain, on nearly all lands but those that received an early heavy wetting from rain, or artificial flooding.

We are presented then with this well indorsed axiom, that we must sow early, upon well prepared soil, to be followed by at least one thorough soaking and that then, we can rely with certainty upon a fair average crop, with or without the April or May rains. What then does this teach us, other than that to insure the one thorough soaking, we must adopt some system of winter irrigation; that we must convey the waters from our vast mountain reservoirs — the eternal and eternally melting snows—into irrigating canals and ditches and spread them out over the lands, which must be previously prepared to drink them in.

Correspondents of the RURAL, able writers, men of observation and practical experience, have again and again called the attention of farmers to this subject, of an abundant winter irrigation, and it would seem at least, that the theory is not only generally adopted, but is in very many cases and places to be acted upon; large companies and small, canals and ditches for transportation and irrigation, are engaging the attention of farmers and capitalists in all parts of the State where water runs, and still more where it don't run but can be made to run.

We advocate deep and thorough culture, but this without water will not secure a certain crop on millions of acres of our good wheat lands; though thousands of farmers have been induced to rely upon it alone, from hearing it persistently advocated by those who believe that deep and thorough pulverization is all that is needed. This year has taught them better, and now many an eye is turned with longing to the millions of tons of dashing waters, running to waste in natural channels, in many instances almost by their very doors.

WHERE THE EARLY CHERRIES CAME FROM.—A RURAL reader asks us where the earliest cherries of the season—a note of which was made by one of the City papers—came from. We answer, from that section of California known as the Semi-Tropical land with Putah Creek on the north and Lagoon Valley on the south. A lady correspondent, Mrs. H. T. B., informs us that a near relative of her's produced the three boxes of cherries the first in market, bringing $1.25 a pound or $95.53. This speaks well of Vacaville and vicinity as a cherry, growing soil and climate.

WILL farming pay? is answered affirmatively by William Boots of Milpitas, Santa Clara Valley. Nine years ago he commenced with nothing, and to-day he is worth $75,000—all made by farming.

CORRESPONDENCE.

The Demands of Vegetable Life on Atmospheric Influences.

EDS. PRESS:—Uuder the old system of farming, the objects songht in cultivsting summer crops were, subduing the weeds and reducing the surplns growth of the crops. These objects were of themselves snfficient to warrant the expenditnre of the care and labor thus bestowed upon them. But while the cultivator and hoe were stirring up and shifting the soil, and the busy fingers were weeding out and thinning the plants, thev were conferring benefits npon the crops essential to their proper growth; though these needs were not known to those who directed or performed the lsbor.

Later observations, however, have afforded unmistakable proof that the soil, in order to meet the demands of vegetsble life, must be subjccted to frequent stirring; the deeper, more thorough, aud more freqnent the better. Of the nature and operations of the benefits thus conferred, science has thns far failed to inform ns; bnt no principle in agriculture has been more thoronghly established by progressive farming thsn the benefits which vegetation receives from the cultivation of the soil. It is beneficial nnder any circumstances; (excepting of conrse when the soil is too wet to work) and when crops are suffering from drouth it is often equivalent to a moderate rain-fall.

But the soil hss wants besides those of the current season. Summer fallowing, draining, (the removal of snrplns water is only one of the great benefits derived from draining) and snbsoiling, do mnch towsrd supplying these wsnts. And not only does the soil need the assistance of these processes to redeem it from natural defects, or to renovate partially exhansted vigor, bnt even where everything seems favorable, as regards moisture, natural richnoss, and other prime considerations, and where no demsnd has ever been made npon its natnral fertility, there is still a manifest need of something that is to be supplied by the assistance of man.

This is plainly seen in instsnces where boulders or other coverings have preserved the soil in its primitive condition, and rendered exhaustion impossible. Instances occnr in the experience of most agricnlturists, who have followed the calling for any length of time, in which this principle is plainly exemplified. I have heard farmers remark that in clearing and breaking up new land, the spots from which large boulders have been removed would remain almost barren; while the rest of the field wonld exhibit a fair return for labor and seed; and that these weak spots are plainly noticeable dnring the progress of two or three seasons, and finally arrive at an average point of fertility by being allowed their due amount of the benefits conferred by the atmosphere.

Bnt the most suggestive instance with which I am acqnainted occurred within my own experience. I had occasion to remove a barn which was built upon a spot where the ground had never been broken; the lot on which it stood having been enclosed from the original forest. The rest of the enclosure had been subjected to cnltivation during a long term of years, nearly twenty, and had undergone the usual vicissitudes of abuse, pandering and neglect. Meanwhile the spot on which the barn was erected had enjoyed a long exemption from cnltivation, and to add to the supposed benefits of the exemption, the siftings and drippings from the stable portion of the barn had, through all these years, contributed largely to the fertilizing wealth of the soil. Having at length occasion to demolish the building, and desiring to secure a particularly favored location for a strawberry bed, I very natnrally selccted this spot for the purpose.

The resnlt of all this rare combination of favoring circumstances, with all that I could snpply in the way of preparation and succeeding care and labor was as complete a failure as the most envious of my neighbors conld have wished. The plants barely lived; they did not grow. They received the proper cultivation — not to subdue weeds, for no weeds made their appearance. It required several seasons to bring the spot up to even an approximation to what I had expected from it.

Undoubtedly, there are among the readers of the RURAL PRESS others who have experienced similar disappointments. It is not a very severe lesson, and it is one from which we may derive snbstantial profit. It may also open a way by which we may add somewhat to the knowledge which is greatly to be desired for its own sake, even without any considerations of more tangible profits.

HENRY BARNUM.

There is no question in regard to the ameliorating influence of both air and sunlight in fitting soils for the production of crops, but we were not aware that such an effect as our correspondent suggests, could have resulted to the soil, simply from the absence of atmospheric influence. We knew an instance that occnrred in our nativo village, where an old chnrch was torn down, that had occupied the ground for nearly eighty years. The surface of the soil was fonud extremely light and porons to the depth of eighteen inches.

On analyzation it was found to be strongly impregnated with nitre—saltpetre—and a portion of the surface-soil was sold for the pnrpose of its extrsction. The remainder was thinly spread upon both grain and grass lsnd, and evidently contributed to a largely increased produet. But the church ground, on being seeded to grass, produced none, nor did it until the rains of three or more seasons had washed or leached out the excess of nitre in the soil, when it finally became exceedingly productive.

Lake County.

EDITORS PRESS:—An allusion to the freedom from injurious frosts, in my late article, in a certain section of our State, is confirmed by the statement in the issue of the RURAL, of May 17th, hesded "Solano," whereiu the author speaks of thst portion of the connty lying near the foot-hills of the range dividing Napa and Solano connties.

And if any other verification be needed of the unsurpassed luxuriance of vegetation and fertility of soil, it is only necessary to visit the market of San Francisco, to ascertain where the earliest fruits and vegetables that rivet the attention of the beholder are produced.

There is also a portion of Lske Connty which we came npon during our flying trip, at about the highest elevation between Napa County and the lakes, free from frosts to do any injury, on acconnt, probably, of the backwardness of vegetation, at a season when other portions are more developed.

But while Lake County msy be of comparatily indifferent worth as an agricultural area, it has, within its borders, to the despondeut seeker of health, in its bracing air and mineral springs, far more value than golden fruits, or acres broad. Why seek distant shores or other climes, when, within the reach almost of our very doors, msy be found in its life-giving fountains the priceless boon of health?

The beanty and diversity of the scenery, often spoken of by travellers, isa great festnre of attraction to the weary denizen of cities, or blssé pleasure-seeker. Its inhabitants, too, seem alive to the fact that *good roads* are of value to attain to all these advsntages that its precincts afford (a fsct presenting an example that the dwellers in our level valley lands would do well to imitate.)

In speaking of the scenery of Lake county, there is a region of snch picturesqne beauty, comparatively unknown—at least, its praises hitherto "unsung"--in the vicinity of "Seigler's Springs," that it seems almost criminal to pass it by, without this brief notice.

Forests of stateliness and beauty here meet the eyc, rising in almost primeval grandeur.

Cool mossy glades and enchanting nooks bestow a benison on the weary and wayworn, who seek in the blessed haunts of "Mother Natnre," a soother and a balm for the disappointments and cares of a bustling life. Groves of maple and oak alternate with the odorous pine of life-giving breath, and majestic fir.

Here, (if anywhere) in this bracing atmosphere of mountain altitude and genial air, the health seeker may expect to "come into his own again."

In future years, when the almost inexhanstable resonrces of our favored State shall have been more fully developed, we hope to see these delightfnl haunts, famous and sought for, by the invalids and pleasure seekers throughout the land.

"THEE."

Lands Suitable for Semitropical Fruits, i, e. Rich, Irrigable and Exempt From Killing Frosts.

EDITORS PRESS:—I see by a letter in your valuable paper that a correspondent seems to think he has found one place in California—a place in Napa Valley—where lands may be obtained exempt from killing frost's and irrigable by sufficient water.

Without intending to disparage the discovered spot in Napa, I beg leave to inform you and your good subscribers that many spots blessed with all that is claimed for it and mnch more, can be found in the splendid valley of Los Angeles.

It is true that in some low, damp places here, late frosts have occasionally nipped the early sprouting vines and vegetables, and more than ever known before has this been the case this season, especially in Anaheim. Bnt to my certain knowledge, within a few miles from that place, on the more elevated and equally well watered plains of Richland, no frost has occurred severe enough to kill tomato vines in the open air. If your correspondent from Napa will visit Richland, we will take pleasnre in exhibiting to his gaze in the embrace of a single landscape many thousands of acres of rich land most admiraby adapted for the growth of semi-tropical fruits, where the orange, the lime and the vine may ever bloom without fear of hurtful frosts. The lands I especially refer to are situated on the Rancho Santa Ana, and enjoy the facilities of abundant irrigation from a fine canal leading from the Santa Ana river, heretofore known as the A. B. Chapman canal, but now appropriately transferred to a corporation styled 'The Semi-Tropic Water Company."

I shall be more than pleased Mr. Editor to show you or your correspondents over the beautiful plains above referred to and prove to you the full truth of all I have said above.

WM. T. GLASSELL,

Richland, Los Angles Co., May 28, 1873.

We can assure our readers that the RURAL PRESS has a circulstion world-wide, in every land and country where tho English langusge is spoken; that a letter like the foregoing is read with all the greater interest from hsving emanated "from among the people." We are always glad to publish just such short, prscticsl esssys upon the advantages of soil, climate and situation of any aud every part of the Pacific Cosst; let them come like a great wave upon us, snd we will take all the chances of harm.

The Vienna Exposition.

[FROM OUR SPECIAL CORRESPONDENT—GUIDO KUSTEL.]

To commence a systematic description of the exhibited articles at present is impossible. All that one can do, is to wslk around for msny days and try to acquire a generel view, or a totsl impression of all, before going into a detailed examination. Up to this time sbout 3,500 railroad cars loaded with goods amounting to more thsn half a million of hundred weights have arrived. Numbers of these boxes are as yet untouched, in and outside the different buildings, but mostly between the machinery hall and the palace; and thst is not all, as there are 2,000 car losds announced to come. The discharging of these cars takes time; there are amongst others, heavy boxes, difficult to handle, so that hardly more than a hundred cars can be emptied per day. By this calculation it will tske twenty dsys more, to plsce the new arriving goods where they belong.

Nothing was neglected on the part of Baron Schwarz to hasten the work, no blockading occurred dnring the whole time; there wss also plenty of time for the exhibitors to the first of May to have their articles in Vienna, and still every thing is behind. It is very likely thst, from past and present experience, future "world's expositions" will be better arrsnged and regulated if possible, but it seems also, that there is limit as to the extent of our International Exposition, beyond which a failnre may be anticipsted.

It is singulsr, Switzerland excepted, the three great Repnblics, the United States, France and Spain are most behind with their expositions.

In the American Department

"Colt's patent arms" and those of Smith & Wesson's are exhibited in the gallery, in very elegsut cases, but nothing else. In the still larger covered yard only one thing is displayed, a picture on the wall of the building, over 50 feet long, from 'Pork Packer's Association" of Cincinnati, representing the total procednre, from killing the hogs to making hams. But there is a great amount of American goods in boxes here, and perhaps just as much between Vienna snd Trieste, which is expected to arrive in a week or so. The American exhibitors are not satisfied with the present "temporary" commissioners; they had a meeting yesterday, which resulted in the election of a committee of five, as acting medium between the expositors and commissioners. A motion was also made to telegraph to the President, the reqnest to reinstate those of the old commission, who proved to be blameless; but there prevailed good sense enough to discover that is "not onr business." All will clear np in a short time, and the American department, as it seems, will make a formidable representation after all.

There is from the 1st to the 10th of May

A Flower Exposition,

To which Austria, Belgium, Italy and Germany contributes. For this purpose a teut was fixed np, 600 paces long. About 2,000 blooming roses dried up in the station house at Hambnrg. A carload of the finest "camellia" was ruined by the frost while on the railroad from Dresden. Nevertheless the Exposition is a magnificent one. Predominent are the splendid varieties of "Azalea" and "Rhododendron. A new specimen of a Japanese rose was exhibited, bnt there is no use of ennmerating the kinds of flowers, there are too many of them. Some exotic plants and palm trees give to the collection a charming aspect. Several more expositions of this kind will follow at intervals. Fruit and vegetables were also represented, but at this time not much can be expected; of strawberries, however, (from hothouses) there were jnst as large specimens as fonnd in California.

Of Agricultural Machinery

In the English department a nearly complete exposition can be seen now. The large area of 4,500 square meters—equal to 48,700 square feet—is all taken up by luxurious, tastefully equipped mschines of all kinds. There are quite a number of different threshing machines, corn-dressing machines, corn screens, haymaking machines, straw elevators, haud seed drills, beet and manure drills, corn-grinding mills, crushing and kibbling mills, mowing and reaping machines, etc. There are several hnge plows and complete steam plows, some already sold; agricultural road locomotive engines; steam engines, fixed and portable; and a great many other agricultural machines and implements.

The American Agricultural Hall is a separate building, but it will take yet a few weeks before this exposition is ready. In the Machinery Hall all nations are very busy fixing np their departments, bnt msny weeks are yet reqnired to finish the job. In the industrial palace, the glasswsre is already now well represented, most of it in the Austrian department. In this is also a jeweler's csse of limited size, containing only a few articles, bnt amonnting in value to $650,000. Every night this case, by means of a crank, disappears under the ground in a "tight place." The Crown Prince, of Germany, in the hall of arts, was met by a Yankee, who accosted him in the following way, in English: "Will you do me the honor, sir, to shake hands with me?" "With pleasnre, sir," and he did so. "Where are you from, sir?" "From New York, sir." "I thonght so," said the Prince. "Here is my friend, sir, would you confer the same honor on him?" "Certainly, sir." "Thank yon, sir." The Crown Prince went on smiling. The New Yorkers were satisfied and one of them remarked in a careless way: "He is a pretty good fellow." The London *Times* is also complaining of extravsgant prices in Vienna. There are only a few articles here dearer this year thsn the last one. The high charges in the restaurants have therefore no excuse whatever, but it is singular that these skinning institutions are principally established by foreigners. The most impndent charges sre made in the Russian restaurants, then in the Italian and American, French and English. In the Liesinger Bierhalle they charge 5 cents for soup; in the Italian ironhouse, 25 cents; Roast meat with potatoes in the former, 35 cents, in the Itslian 87½ cents, and so on. In the Pilsner Hslle, a Frsnkforter-sausage and a glass of wine, 20 cents, and the same thing in the Americsn restaurant, $1. The U. S. Rear Admiral James Alden, commander of the U. S. fleet in European wsters, has arrived in Vienna, to visit the Exposition. A large barrel of oakwood will be exhibited, 21½ feet long, and 19 feet diameter in the middle; 35,000 persons visited the Exposition on the 1st of May; of the $12.50 tickets, abont 6,000 were sold. It was a cold and rainy dsy. For the Hall of Arts, two msmmoth paintings arrived to-day, one is from the Belgio painter, Wiertz, and has an area of a hundred meters, the other is from Cabenel, 80 square meters. The most of the paintings exhibited by France are the property of the State.

Vienna, May 10th, 1873. G. K.

Compton, Los Angeles County.

EDITORS PRESS:—I see in the RURAL that you advertise, "Laws Concerning Corporations." Will yon please send me fonr copies. We have here a fine country, good climate, good soil, good people, but yet we need water. We must irrigate to insure an abundant crop. There are several irrigating ditches in this part of the country and we wish to understand the laws concerning them. There are several artesian wells being bored in this vicinity at the present time, and last week one of the best wells in the county was struck near this place. It sends out sufficient water to irrigate from 80 to 100 acres of lsnd. In a season snch a well as that almost makes a man independent of rain.

I freqnently see articles in the PRESS about other portions of this county, but have never seen anything yet concerning this vicinity. We have here a thickly settled neighborhood of about one hnndred families, most of whom have done whst bnt few Californians do, "settled down" to make their permanent homes. We have here a good chnrch honse, school house and other marks of civilization and progress, one of them, the RURAL PRESS, which is extensively read by the people of this commnnity.

J. E. MCC.

May 22d, 1873.

WONDERS OF THE SPECTROSCOPE.—That wonderful instrument, the spectroscope, continues to enlarge our acqnaintance with the composition of our solar system, and even of the fixed stars and the comets. Father Secchi has made the astonishing discovery of the vapor of water in the vicinity of the sun spots, and we now know that our luminary contains also in its atmosphere hydrogen, sodium, iron, magnesium, calcium, copper, cobalt, barium, and nickel. The same observer has recently ascertained that the planet Uranus has an atmosphere of considerable extent, and generally transparent. The spectrnm of a comet, corresponds exactly with that given by ignited csrbon vspor, so that a comet is a little more than a barrel of petrolenm on fire; and the variable star *p* Gemiui is fonnd to be surronnded by an envelope of burning gas. As regards some of them, at least, we can no longer, therefore, "donbt that the stars are fire."—*Lippincott's Magazine.*

A NEW REAGENT—Professor Bottger recently announced the discovery of a new reagent which, he asserts, is highly sensitive to the alkalies. It is a coloring extract of the *coleus verschaffelti*, and is produced by digestion, for twenty-four hours, in pure alcohol, to which a few drops of sulphnric acid have been added. The hne is a brilliant red, which turns green on contact with the alkali. It is not affected by carbonic acid, and will detect the slightest trace of ammonia in illuminating gas if moistened and placed against an open jet. The presence of the minntest quantity of a carbonate of any of the alkalies is detected by it.

ANIMALS AND VEGETABLES.—In all animals the embryo absorbs its yolk from the inside, while in vegetables the germs of seeds are snrrounded by its albnmen. This foreshadows the manner in which the adult takes its food.

Home and Farm.

Farm House Chat.

[By Mary Mountain.]

The Rural of May 10th contains letters from Eastern correspondents that have stirred my sympathy, and although the queries are answered just as well as they can be from the editorial stand-point, yet, having been a Green Mountain farm-girl and now a California farm-wife, I know my editors will allow me to "say my say" from the agricultural stand-point.

Item 3d, tells the Eastern querist that—"In all plains, not too remote from mills, water or railroad transportation, a not large but comfortable farm-house can be built at a cost of from $2,000 to $3,000."

I hope the coming farmers will be able to put as much as that, or more, into his cosy home; but just at present, we are not quite up to that well-to-do standard. Perhaps no general statement of California farm usages will seem so real and familiar as an account of personal experience, or the plain story of how "we and our neighbors" live.

Nearly four years ago we bought this dairy-farm in the Santa Cruz hills and moved into the house we found here. It is 24 by 36, built of redwood boards placed upright, with siding nailed directly upon them for outside finish; but inside the boards were left in their native roughness, and the terrible "slivers" soon taught one to keep their distance from the walls.

There were partitions of the same rough boards; single floors above, and below; two immense fire-places and a huge brick, chimney; small old-fashioned windows, and some of the doors were simply boards with cleats across.

The joists that supported the chamber floor, were in the severest style of simplicity, except where busy spiders had festooned their uncouth nakedness. No paint or whitewash anywhere; ronghness and dirt everywhere. Cracks yawned in walls and floors, till it seemed the house was half made of cracks; the roof looked well, but winter rains proved the deceitfulness of appearances.

Autumn nights were cool and we shivered. Big fire-place full of ruddy flame could hardly warm a room so full of ventilation. So we tore old cloth into strips about 3 inches wide, smeared them with paste and covered the wall cracks in all the rooms.

Took other strips aud fragments of cloth smeared with paste, and caulked the floors in a substantial and workmanlike manner. Covered the beams and boards overhead and the walls of the kitchen with whitewash. But the sitting-room and bedrooms must have a more artistio finish; so we papered their walls with Harper's Weeklies, picture-side out, and there we were, "fixed up so nice" that our neighbors thought we were ready to take boarders. And here was a rude sort of comfort certainly. No room so tight as to exclude free air, for the doors and windows were loosely hung and mountain breezes came whistling in without ceremony; but the blaze of logs in the fire place now kept the whole room comfortable and a moderate stove fire was enough for the kitchen part of the house. (Many of our winter days are comfortable without fires until evening).

Since we have whitewashed the outside, given one coat of paint to doors, window-casings, eto., built rustio porches over outside doors and a fence around the little yard, it really looks rather cheerful, and better than the average of farm houses.

Our homely improvements have been made mostly in odd hours and have oost very little money, probably not over $10. Our little boy 11 years old has done whitewashing and painting that would have run up quite a bill if regular workmen had been employed. The cost of the house to the original builder was about $500, and would have been considerably less if he had been handy with tools.

A farmer who is coming here may well consider this point, for if he can help do the work himself, especially if he can superintend and see that lumber, etc., is used to the best advantage, he may with $1,000 put up a house that we would call comfortable and a barn much better than any we have on our place.

That is not saying much; but we came here to build up health, which we prize more than any other building, and perhaps the very roughness of our home is a better health insurance than all the luxury we might enjoy in a thoroughly built, hard-finished house.

Cheaply built houses like this may be made very pretty, and when neatly finished inside, papered and painted, they are almost nice enough for anybody. If the builder can afford an inside finish that will leave a space between itself and the outside wall, he will be secure from driving rain—his wife may be snug and happy all the time and take her place at once among the upper crust of rural society.

Barns are next in interest to houses, and a practical mechanic has told me "what he knows" about this queer one of ours. It is 24x 60. Ten split posts 14 feet long were set in the ground four upon each side 20 feet apart, and one in the center of each end. These are capped with 2x6 pieces for plates. Outside at bottom and again at centre 6 feet, from bottom one inch boards are nailed for girders. Upon these perpendicular boards are nailed and "there you have your wall." The rafters and shingling laths are of split stuff, the former about 6 feet apart, the latter (1x4 stuff) about 5 feet apart, and the shingles (called "shakes") are 6 feet long. A man upon this roof must stick well to his ladder or he might drop through; but the ground would "oatch him" for there is no "barn floor" in this primitive structure,

It was built some 10 years ago and cost its enterprising owner in cash paid out about as follows:

2,500 ft. refuse boards at $8 per M	$20.00
216 ft. 2x6 plates	2.50
50 lb. nails	4.00
Total cost of barn,	$26.50

It has answered every purpose thus far and may for 10 years more "testify" that we have neither tornadoes or earthquakes "to hurt."

This is a lumber region and the great redwood logs split easily and afford the most durable stuff that is known for contact with damp, in or out of the ground.

In some parts of the State, lumber would cost 2 or 3 times as much as here, and the expense of hauling over long distances must also be considered.

The "practical mechanic" has given me a statement of the cost of houses in 2 school-districts of Santa Cruz Co., where nearly all the people get their living by farming.

Costing from $25 to $500,	42
" " $500 to $1,000,	6
" over $1,000,	3
Total number of houses	51

No dwellings are counted but those that have sheltered families, and a few of these belong to the cabin order of architecture and have cost very little besides the labor of the builder.

They are not like the Yankee log-house, but made mostly of split lumber, and in the hands of a neat housewife can be quite homelike and comfortable.

Of course the owners of full purses need not consider my facts and figures or take a second thought of our back-woods make-shifts and humble economies. But many Eastern farmers who are well-to-do at home could hardly sell out and get here with $3,000 in hand, and if they think that must all go into a house the first thing, they will shake their heads sadly and stay where they are; thinking it no worse to face the storm-king there than to fight debt and the rawness of a new country here.

One should certainly have enough means to secure land, put up the house, get some furniture, provisions, farming tools, etc., and the barn and several other desirable things can wait a while.

That is because we have such a good climate. We are all waiting for our woodsheds, and most of us waiting for our piles of ready-cut wood. That is because we have such a mild climate; makes us mild, and long-suffering with a peculiar grace of waiting.

We can haul up a little tree or the bark of a big tree, and cut off as needed.

Blessed be the farmer who does not forget the chopping and leaves it for his wife to do.

In next Chat I will try to give some items in regard to cost of country living; but my neighbors live so far away I cannot poke my nose into their affairs in the "reliable reporter" style and I wish they would speak up for themselves.

If a few score of farm wives in different localities would give us the benefit of their personal experience how useful and interesting it would be.

I would like especially to hear from the woman who threatens to sit on the fence and run away with the first man who asks her, if the present "My Dear," does not build that front yard fence. She is the sort of woman to know how much egg-money comes in and just how it goes out.

To Prevent Ruts in Roads.—The art of road-making is yet in its infancy in this country. The roads are not laid out, made, or repaired with reference to economy of draft in using them. Deep ruts are soon worn in them by the common vehicles that pass over them; and these grow worse and worse, until they are almost impassable in spring. Broad cart tires are a partial remedy for these. Longer yokes, both for oxen, and for double horse wagons and oarts, compelling the teams to walk in the same line with the wheels that come after them. would be a still better remedy. On most country roads there are two toe-paths and two ruts, and it is noticable that the toe-paths are always in much the better order. Longer yokes would bring the paths and ruts together. The feet of the teams would break down the sides of the ruts, and fill them as fast as they were formed. This would improve the road bed, and make the draft of loads easier. We cannot shorten the axle trees without increasing the danger of upsetting, but we can lengthen the yokes with safety. Legislation is needed.

Names.—Emma is from the German and signifies a nurse; Caroline is from the Latin, noble-minded; Martha from Hebrew, bitterness; Mary is from Hebrew, and means a drop of salt water—a tear; Sophia from Greek, wisdom; Susan from Hebrew, a lily; and Dorathea, God's gift.

Woman Voters,—Women who hold 2,500 dollars worth of property, and pay taxes on it, are declared by the Judiciary Committiee of the New York Assembly to be entitled to vote in elections in that Stat.e This decision is based, we suppose, on the doctrine, of no taxation without representation.

Miscellaneous.

The World of Atoms.

It is quite impossible for the human mind to conceive of the minuteness of chemical atoms. M. A. Guadin, an eminent French physician, has recently been investigating the molecular and atomic constitution of bodies, and has published the result of his researches. He holds that the distance from centre to centre of individual atoms does not exceed the 2,500-millionth part of an inch. To give some idea of this excessive minuteness, the Doctor states that there are as many atoms of oxygen and hydrogen in a single drop of water, as there would be grains of sand covering the entire surface of the earth to a depth of over one mile! These atoms are held to be spheroidal agglomerations of particles, each perfectly distinct from the other.

His theory of combination is, that au atom of one kind is always placed between two others of a different kind, and always exactly on the lines joining their centres. With these atomic files or lines he arrives at all the molecular arrangements indicated by chemical formulæ, in which the atomic systems are invariably found perpendicular to the axis. The phenomena of crystallization is also referred to this parallel and symmetrical disposition of atoms. In square or hexagonal prisms, and in the rhomboid, the atoms preserve their invariable parallelism, perpendicular to the axis; while in the doubly oblique they observe two unequal distances; and it is this inequality that produces the phenomena of double refraction in crystals of unsymmetrical systems. These theories are novel and interesting, particularly in reference to their bearing on crystallization.

The extreme minuteness of the original particles of matter may help explain the wonderful transparency exhibited by most cometary bodies, many of which, though millions of miles in diameter, scarcely affect, to any appreciable extent, the brightness of the faintest star when they pass between it and the earth. That most comets do thus exist in this most extreme degree of divisibility, is known from the immense disproportion which exists between their actual mass or weight and their known diameters. A comet which, in its gaseous condition, has a diameter of many thousand miles, would, if brought to the density of earthy matter, be redneed to a diameter of only a few rods, or perhaps, even feet. The law of repulsion, by which all gases are governed, when applied to those gases existing in the condition of original atoms, would give us a form of matter so attenuated that it is only by some such illustration as is given above, in relation to a drop of water, that the human mind can conceive of it.

It is only through a knowledge of the possibility that a single drop of water may, by being separated into its ultimate atoms, be made to cover the entire earth, that we can form any idea of the probable fact that the heavenly bodies, although now separated by snch immense distances, once absolutely filled all space, so that star touched star throughout the immensity of the universe.

This ultimate or rather original extreme divisibility of matter will also explain the possibility of that highly attenuated, interplanetary ether, which is supposed to pervade all space, and all matter as well, and to actually separate each particular atom, as above described from every other, so that no one is in actual contact with its neighbor on either side. Such is the world of atoms as indicated by chemistry and philosophical research.

Air.—An interesting paper on the examination of air, taken from various localities, was lately read by Dr. Sigerson, at Dublin, before the Royal Irish Academy. In air from an iron factory he found carbon, ash and iron. The iron was in the form of little hollow balls, each about two-thousandth of an inch in diameter, and the iron so thin that the light passed through it. In "shirt factory" air were found filaments of linen and cotton. Antimony—from the type metal probably—was discovered in the air of printing rooms. Stable air was shown to contain floating air and scales; and in the air through which tobacco smoke was passing, nicotine, the poison of tobacco, was found in little globules.

Central Heat. — Mr. G. D. Symons, of London, Eng., recently made some interesting experiments on the earth's temperature, in an artesian well, 1,300 feet deep. The results show an increase of 20° of heat at 1,100 feet, so that water would boil at a depth of a mile and a half; at a depth of 31¼ miles tho temperature is 3,000°. As iron melts at 2,800° it is plain that the problem of a central furnace heat at no great distance below the surface of the earth is becoming more and more settled—in fact has already reached what may be considered absolutely certain.

Grinding Edge Tools.

Edge tools are fitted up by grinding, very much as a plank would be reduced in thickness were a large plain employed, in which were set a hundred or more very small gouges, each cutting a narrow groove. The sharp grit of the grindstone being harder than the iron or steel, cuts very small channels in the surface of the metal, and the revolving disc carries away all the minute particles that are detached by the grit. If we were to examine the surface of a tool that has just been removed from a grindstone, under the microscope, it would appear, as it were, like the rough surface of a field which has recently been sacrificed with some implement which formed alternate ridges and furrows. Hence, as these ridges and furrows run together from both sides, at the cntting edge, the newly-ground edge seems to be formed of a system of minute teeth, rather than to consist of a smooth edge. For this reason, a tool is first ground on a coarse stone, so as to wear the surface of the steel away rapidly; then it is polished on a wheel of much finer grit; and finally, in order to reduce the serrature as much as possible, a whetstone of the finest grit must be employed. This gives a cutting edge having the smallest possible serration. A razor, for example, does not have a perfect cutting edge, as one may perceive by viewing it through a microscope. And yet the serrations are actually so much smaller than the human hair that the minute teeth cut the hair in twain; but when the serrations on the edge of the razor become so battered up and dull that they will not sever a hair, or cut a man's beard off, the edge must be honed and strapped until the system of minute teeth will be so much smaller than a hair, that several of them will take hold of the smallest hair at once. These suggestions will furnish something of an idea of the operation in grinding and whetting edged tools.

Beginners are sometimes instructed, when grinding edge-tools, to have the stone revolve toward the cutting edge, and sometimes from it. When the first grinding is being done, it is a matter of indifference whether this is done or not; but when the finishing touches are applied near and at the very edge; a grinder can always complete his task with more accuracy if the periphery of the grindstone revolves towards the cutting edge, as the steel that is worn away will be removed more easily; whereas, when a stone runs in the opposite direction, the grinder cannot always tell exactly when the side of the tool is fully ground up to the edge. This is more especially true, when the steel has a rather low or soft temper. The stone, when running from the edge, will not sweep away every particle of the metal that hangs as a "feather;" but when the stone revolves toward the edge, there will be no "feather edge" to deceive the eye of the grinder.

Analogies of Art and Nature.

In casting artillery, the particles of iron over lap each other, horizontally, from breech to muzzle; but the heat wear of the powder soon turns them in towards the chamber of the gun, and it becomes what is called honey-combed—and loses its cohesion, and finally bursts, destroying itself and often gunners. It is only a question of time when each and every piece of artillery will burst, and "no man knoweth the day nor the hour." Any one who can counteract this tendency of the iron to dip towards the heat wear will save the nation vast expense and valuable lives.

Ice forms in a minute triangles horizontally on top of the water, "but when in the sky the spring sun glows," the particles of ice dip from the sun as if to cool their heads in the water—not perpendicularly, but at an angle corresponding to the slanting of the rays of the sun, and gradually approaching the perpendiculur as the earth swings southward in her orbit. Thns the iron dips towards the heat; the ice dips from it. The ice is then called "pencilling," and is dangerous to walk on. Nor is this all; the sun dip can be seen in the rocks all around us, and the day is not far distant when some one of wealth and leisure will take up this key, clear geology of most of its vast internal fires, of its floods, earthquakes and dark, indefinite periods and unfold the record of the rocks in all their grand simplicity, until the wayfaring man can read them.

The Milky Way.—Eighteen million suns furnish the light for the milky way, which is the greatest feature of our heavens. How far separate these suns may be we know not, but they are so distant from us that light, traveling with its incredible speed, is ages in reaching the earth. One astronomer said he had gone back in the milky way so far as would require 330,000 years for the transmission of its light. Whether the telescope has allowed the human eye to gauge it more or less, the fact stands that the bounds of creation are as immeasurable as their eternal Creator.

Meteorites Now and Then.—The meteorites which now arrive upon earth are not of the same mineralogical nature as those which fell in past ages. Formerly iron fell; now stones fall. During the last one hundred and eighteen years there have been in Europe but three falls of iron, whereas there have been annually, on an average, three falls of stone. Perhaps it may even be said that stones of a new kind are beginning to arrive, for falls of carbonaceous meteorites were unknown before the year 1803, and four have been observed since then.

Farmers in Council.

Santa Rosa Farmers' Club.

Club met, May 24. Committee to examine books made a report in part, and asked for further time.

The Secretary read a circular from a mercantile and shipping house in San Francisco which he had received.

Mr. Rector said the circular was worthy of our notice. We have been a little slow in giving information. We may have to ship our own grain, or we may have to open a house of our own to sell our grain. We have fruit in abundance, and we could have an agency to sell our fruit. Let us open negotiations with this firm and report. It is time to do business. If we use a little money we will begin to find the benefit of it.

Mr Thompson said.—Nothing would he better than to open a fruit-canning factory. The farmers could make it co-operative or they can start some other person on the track of the matter—encourage home capital to take hold of it. I have looked into the business, and I believe it will take less money than any other business to push to success. Fruit raised in this county rot on the ground, tons upon tons of it, because farmers do not see remuneration in shipping it to San Francisco. Can it, and we have Nevada, Salt Lake and the Northwest territories for a market. In San Francisco one packing and canning house paid in one year $30,000 for lables alone. This shows you the extent of the business, when you consider the lables cost bnt two cents each. This is a business in which the farmer, merchant and capitalist can co-operate with each other.

Mr. Rector.—I see the same difficulty as we have always met. It will take $2,000 to start with and much more capital to carry it on. This Clnb cannot do it. We are only a social order, aud I think it impracticable for the Club at the present time.

Mr. Peugh moved that a committee be appointed to open communication with the honse whence came the circular. Carried. President appointed Messrs. Pongh, Rector and Fultou.

Information about Crops.

Mr. Fulton said.—So far as I know, a fair average crop of wheat, late sown, will be short; the early-seeded grain averages better than last year. The north winds damaged the late bnt uot the early sown grain.

Mr. Wilkes (Bennett Valley).—The early crop of wheat is one-half less, iu prospect, than it was four weeks ago. Late wheat, sown in February, that we thought would make forty or fifty bnshels, will only make half crop. There are two rows of grain vacent. There are only two rows of grain on each side of the head where there should be three.

The resolution to meet only once a month, was voted down.

The Club will, therefore, meet every two weeks, as heretofore. E. W. Maslin, Sec.

—Sonoma Democrat

San Joaquin Farmers' Club.

A regular meeting of the San Joaquin Farmers' Clnb was held at Pioneer Hall on Satnrday, May 31st, President T. E. Ketchum in the chair. The committee appointed at the last meeting to draw up resolutions expressing the sense of the farmers of this connty in regard to the operation of the San Joaquin and King's River Irrigation Company, submitted the following which were read, discussed and adopted:

Whereas, The San Joaquin and King's River Canal and Irrigation Company, a corporation claiming to be legally organized under the laws of this State, is now attempting to procure permanent control of the waters of the various streams flowing through the San Joaquin valley; the object of such corporation, as set forth in its certificate of incorporation, being "the construction of canals in the State of California leading from the San Joaquin river and King's river, and their tributaries; also, from Tulare lake and streams flowing thereto, and other waters, for the transportation of passengers and freights, and for the purpose of irrigation and water power, and for the conveyance of water for mining and mannfacturing purposes; also, the supply of cities and towns in the State of California and the inhabitants of such cities and towns with pure and fresh water; also the buying and selling of real estate;" and

Whereas, In addition to the power already claimed hy this company, by virtue of its incorporation under the laws of this State, the incorporators propose to ask the Congress of the United States for still greater privileges, and to this end have had a bill introduced in Congress confirming the rights claimed by virtue of their incorporation under the laws of California, and also providing for the grant of a valuable snbsidy to enable them to go on with their works and construct canals and appropriate waters of the various streams of this valley to their own use. Therefore be it resolved by the farmers of San Joaquin county:

1. That the granting of such unlimited powers to any single corporation, is contrary to a sound publio policy, and can only resnlt in building up a powerfnl monopoly which will realize exorbitant profits at the expense of the people of this valley.

2. That the water of the various streams flowing through this valley shonld be regarded as belonging to the people, and it should never be allowed to pass out of their control, nor be granted to any private corporation for its especial use.

3. That the attempt of the San Joaquin and King's River Canal and Irrigation Company to monopolize the waters of this State is contrary to the spirit and intent of the Acts of the Legislature under which it has heen incorporated, and that it is the duty of the people to resist to the utmost the carrying ont of snch a dangerous scheme.

4. That under proper restrictions the land owners of this valley should he allowed to organize for the construction of the necessary canals for the purpose of utilizing the waters of its various streams, and that the control of these canals, and the waters to be diverted should he forever retained hy them, in order that the water may he equally distributed, and in a manner to confer the greatest possible benefits upon the irrigahle lands of the valley.

5. That the granting of any subsidies by the State or Federal Government to any private corporation to aid in the construction of irrigation canals is unwise and impolitic, and is only placing in the hands of private individuals a power which may be used to oppress the people.

6. That it is the duty of the farmers and land owners of this valley to strenuously oppose the efforts of individuals who may seek to secure a monopoly of the waters of this valley, and a memorial signed hy the farmers and land owners generally, should he addressed to Congress protesting against the provisions of the bill of the San Joaquin and King's River Canal and Irrigation Company heretofore referred to, the passage of which will undoubtedly he urged at the next session of Congress.

Mr. Orr read portions of the bills presented to Congress at its last session, and which the company will endeavor to pass next Winter, and moved that a committee be appointed to draw up a memorial to Congress in accordance with the resolutions just passed. The motion prevailed and the President appointed Messrs. W. G. Phelps, J. R. W. Hitchcock and F. J. Woodward as such committee, with instructions to report at next meeting.

Mr Stetson offered the following resolution:

Resolved, That a committee be appointed to memorialize the uext Legislature of this State to grant no rights to companies organized for irrigating pnrposes, without provisions protecting owners of lands from extortionate charges for water.

The resolntion, after some disscussion, was adopted.

On motion the Clnb adjourned to Saturday, Jnne 7th.—*Independent.*

San Jose Farmers' Club.

Club met May 24th, President Casey presiding.

Mr. Hobson, from the Market Committee, reported that the Farmers' Market had heen removed to Santa Clara street, hetween First and Second.

Mr. Settle wanted to know whether alfalfa on dry land should be cut or not. He said his had died down, and was beginning to grow again from the roots.

Mr. Caldwell said he had mowed some off and it was now about twice as high as before it was cut. On his ground it is over twenty feet to surface water, still the alfalfa kept green.

The communication from Mr. Holcombe, published in the *Mercury*, was read.

The question selected for discussion next Saturday, is: "How can farmers most effectively interest their children in agricultural pursuits."

The question for the regular discussion yesterday was, "Resolved that the great need of the farmers on this Coast is unity of action."

Mr. Settle thongh the question was so self-evident that it would not admit of argument.

Mr. Haskell thought this a most vital question, and involved suggestions as to how unity of action could be secured. He thought the object could be attained through the Granges more successfully than in any other manner. The efforts heretofore made for securing unity of action through agricultural societies and farmers' clubs have failed, bnt the Granges promise better.

Mr. Erkson said that in respect to Granges, the only objection he could raise against them was founded on the fact that they are secret, and are liahle to become monopolies themselves. Being secret, and not snbject to public criticism, they are apt to be perverted. But the times call for desperate measures, and just at this crisis perhaps it is well enough to take these risks.

Mr. Cadwell said the secresy part of these Granges seemed to be quite a bughear. Individuals in conducting their pusiness do not publish their intentions to the world; they do not place weapons for their own destruction in the hands of their rivals. Why then should farmers warn their enemies of each step they were about to take for self-protection.

Mr. Casey said that the proposition to seek unity of action through the Granges was defeating the very object songht to be obtained. He thonght the proper method was to diffuse light throughont the community, and no organization could succeed that kept in the dark.

Mr. Settle said that the proposition to unite on a general basis had been tried for many years, and had not succeeded yet. He thought Mr. Casey's proposition, though beautiful in theory, was utterly impracticable.

Mr. Erkson thought the endeavor to unite farmers and leave out all the balance of mankind, was taking a very narrow view. All classes have a common interest, and when one is raised or elevated it is at the expense of the other. All classes should progress together. If one class takes secret measures to advance its own interests, it excites antagonism, and militates against the best good of the community.

Mr. Chipman said there were nearly four-fifths of the best classes in our community who belong to some secret society.

Mr. Hobson said the question had unexpectedly brought out a discussion between the Club and the Grange. The Grange is a new thing; it started out with high aims, and, like all new societies, will have to be perfected. He thought the machinery of the Grange rather too complicated for practical good. One objection he had to the Grange was that it shuts out all hut farmers. He thought mechanics and all others suffering from extortions of the monopolies should be allowed to take a part in the work of resistance and share its henefits.

Mr. Holloway said that the Grange system was too young for us to condemn it, and also too young to build much hope on. He thought the great field of labor was with the farmers themselves, and the obstacles in their way was to bring themselves up to the point of doing something. No law can be maintained unless the people approve it. If, as some say, the Grange is not to he political, he did not see how it was going to relieve the farmers, whose oppressions are nearly all of a political character. The establishment of the Granges, showed that the people were groping for a remedy for their evils, and he approved it as evincing a disposition on the part of the farmers to help themselves.

A member suggested the Postal system as a useful element in securing unity of action.

After some further discussion, the Club adjourned.—*San Jose Mercury.*

Sutter County Farmers' Club.

Club met May 24th, Vice President Chandler in the chair.

Committee appointed at a former meeting to confer with the managers of the C. P. R. R. reported as follows:

To the Farmers' Club of Sutter Connty:—At a meeting of the Farmers' Cluh held April 12, a resolution was passed that a committee he appointed to confer with the officers of the C. P. R. R. Co. to ascertain if the road to Knight's Landing is likely to he repaired this season, and if the rates on freight can he reduced to a lower price than are now charged. A committee was appointed consisting of J. Marcnse, J. McIlmoil, B. F. Walton and C. G. Bockius.

By appointment with the railroad officers we attended a meeting in Sacramento on April 28th and conferred with Governor Stauford and General Superintendent Towne, ou this important subject.

We nrged upon them the importance of this road to the general husiness and farming interest of onr county, in carrying our produce by this much shorter route to market, and the greater convenience and less expense and time in travel; and the wheat market being equally as good in Vallejo as San Francisco and less expensive in wharfarge and harhor charges.

We also represented to them the great inconvenience (by failure of the Company to repair the road) in moving our large crops to a shipping point. We also referred them to the fact that our farmers have organized a corporation with a capital stock of $50,000, and obtained a charter from the State to do hnsiness of various kinds in their general and mutual interests, that they no doubt wonld build warehouses at different points along the road for storage and shipping grain and other prodnctions.

The officers of the company assured us of their friendly feelings to our county and the farming interests in general, and their willingness aud desire to accommodate our people if possihle, but the road being so located that in time of high water it is impossible to run over it, and the amount of business on this section would be perhaps insufficient to justify so large an expenditure of money as it would cost to raise a high grade and protect on both sides with water fence and moreover the difficnlt matter of raising money this year abroad on their security, has been and may still prevent them for the present from repairing the road and delaying this much desired object.

They however proposed sending an engineer in company with our committee to report to them the condition of the road.

Mr. Towne, the General Snperintendent, was present at the interview and concurred with Governor Stanford in his expressions of kindly feeling towards our people, and a desire to accommodate them. When a final answer is received it will be communicated to the people.

To the Sutter County Farmers' Cluh: Gentlemen--Your Committee to which was referred a certain preamble and resolutions some four weeks ago, looking to the future political and financial improvement of the affairs of this county, have had the subject matter so referred to them under careful consideration, and do report as follows:

That we do not deem it advisable at present for the Club to put a Farmers' Ticket before the people, but wonld respectfnlly ask that both the Democratic and Repuhlican Central Committees defer holding their primary elections until after the 10th of Jnly; for the reason that the majority of the voters of both parties will be engaged at either haying or harvesting until that time, and cannot conveniently spend the time required to properly attend to this very important duty of every citizen. And we would further suggest that the said political parties be reqnested to call, hold and conduct their primaries pursuant to the law of the State known as the "Primary Election Law," and that the candidates he chosen in accordance with the plan known as the Crawford Plan, and that the said primary election law and the Crawford plan he made a part of this report, and be pnblished with it for the guidance of electors.

Your Committee cannot too strongly urge the necessity of each voter attending at the proper time and place designated hy the Central Committee of his party, and then and there assist in putting in nomination the best men of his party as candidates for the various offices named in the call for such primary. We believe the foregoing to he the best conrse for the club to pursue nnder the present state of political affairs. But while trusting to the political parties to present candidates for our suffrage, we reserve the right to vote for either candidate named, believing, as we do, that fealty to the puhlic should always he superior to fealty to party.—*Banner.*

Monterey Farmers' Club.

Club met in this place, May 24th, and as will be seen in the following report, handed us by the Secretary of the Club, is taking measures to resolve itself lnto a "Grange" of the Patrons of Hushandry:

Capt. N. L. Allen spoke favorably to merging the Club into a Grange of the Patrons of Husbandry. To test the sense of the meeting a resolution to that effect was offered, and unanimously passed.

The following was then offered for the signature of those wishing to join a Grange of the Patrons of Hushandry:

The undersigned, desirons of forming a Grange of the Patrons of Hushandry in Salinas City, reqnest W. H. Baxter, of Napa City, Deputy for the U. S. Grange of Patrons of Hushaudry, to visit us for the purpose of organizing.

Signed hy 36 gentlemen and 6 ladies.

On motion, the Secretary was instructed to correspond with W. H. Baxter in relation thereto.

On motion, a committee of three, consisting of the chairman, W. F. Ramsey and Samuel Cassiday, was appointed to secure a snitable place for the meeting of the proposed Grange.

Adjourned.—*Democrat.*

Irrigation--The Farmers' Canal Company Incorporated.

A mass meeting of farmers was held in Merced on May 17th. Addresses were made by Mr. Kehoe, James Morton, H. G. Ostrander, Montgomery, Simons, Steele, Higgington, Asbe and Clark. Captain Ashe told the meeting what he saw on the west side of the San Joaquiu river. The grain, before it was irrigated, was almost burnt up, but the land irrigated will now yield largely. On one side of the canal the grain was waist high, on the other side a barren waste. Farmers in that section told him, hy having water wheu they wanted it they could raise two crops a year. Captain Ashe then introduced to the meeting Mr. Clark, as a gentleman who had tried irrigation this season with the most gratifying results. He stated he would relate to the meeting his own experience as to the policy of irrigation. This seasou he has irrigated, and as a result would have from forty to fifty bushels of grain to the acre. Where the water did not reach he would not get hay, althongh the grain was sown at the same time. He had irrigated 160 acres in four days with the help of two men. The land that had been irrigated was made mnch richer at every overflow. Before he began irrigatiug his land was worth $5 per acre. He has since refnsed $30 per acre for the same land. The meeting appointed as committee to confer with the United States Irrigation Surveyors, Messrs. Carrol, Clay, Howe, Simons, Montgomery, Wiggington and Kahle. P. Carrol was chosen as chairmau of the committee.

Organization of the Farmers' Canal Company,

Upon the adjournment of the mass meeting the Merced Farmers' Club met, and appointed as a Committee to confer with the United State Surveyors Messrs. Rogers, Collier, Fowler, Upton and President Jolly. After debate, the following Committee was appointed on organization of an Irrigating Company, Messrs. Fowler, Ostrander, Clay, Atwater, Collier, Gray, Douglass, and Fitzgerald. This Committee uniting with themselves H. B. Jolly, Thomas Upton, Weston E. Elliot and R. H. Morrison, incorporated themselves as "The Farmers' Canal Company." Directors for the first year are H. B. Jolly, H. G. Ostrander, W. W. Gray, M. D. Atwater, Thomas Upton, William P. Fowler and Norval Douglass. The Capital Stock of the Company is $250,000, of which the incorporators snbscribed $41,000. The purpose of the incorporation is to appropriate 100,000 inches, measured under four-inch pressure, of the waters of the Merced river, and construct a canal for the purpose of conveying the same for irrigating purposes. The canal is to commence on the Merced river at the head of the Robla Canal Company's claim near the Blount, Keiser and Perrin dam, from thence running in a southerly direction to the highest hank attainahle on the right hank of the San Joaquin river, as shall hereafter he determined; said canal to extend, in its conrse, across Bear creek, Mariposa creek, and

the Chowchilla from the points where said canal crosses said streams or channels, to the mouths of said channels, together with all the tributaries thereof below such said crossings, or which may be crossed by said canal, and also all other channels over which said canal shall pass, from the points of crossing the same by said canal to the outlets of such channels. And also for the construction of such branch canals from the main canal as shall be found advisable.—*Sacramento Record.*

SANTA ROSA GRANGE OF PATRONS OF HUSBANDRY.—The Santa Rosa Grange of the Patrons of Hnsbandry was organized in this place by General Deputy W. H. Baxter, with the following officers: Geo. W, Davis, Master; S. T. Coulter, Lecturer; C. P. Teague, Overseer; Richard Fulkerson, Chaplain; Theodore Staley, Stewart; John Adams, Assistant Stewart; J. A. Obreen, Secretary; W. W. Gauldin, Treasurer; C. G. Speenhoff, Gatekeeper; Mrs. S. T. Coulter, Flora; Mrs. Geo. Davis. Ceres; Mrs. Adams, Pomona; Mrs. Gauldin, Lady Assistant Stewart. Mr. Baxter tells us that he received a letter from the National Secretary informing him that during the month of April, five hundred and seventy-one dispensations were granted for subordinate Granges, and that three State Granges will be organized this month, with from fifty to 100 subordinate Grangers in each. The nnmber of Grangers now exceeds 4,000.—*Democrat.*

ELMIRE GRANGE.—This grange was organized May 27th, with 30 charter members, by T. Hart Hyatt, of Vacaville.

The following named officers were installed: A. Clark, Master; G. M. Gates, Overseer; G. N. Frazer, Lecturer; Kenneth McPherson, Steward; C. C. Turner, Assistant Steward; Jackson Turner, Chaplain; H. Black, Treasurer; M. D. Cooper, Secretary; S. Rippy, Gate Keeper; Mrs. Annet Clark, Ceres; Mrs. Jennie B. McPherson, Pomona; Miss. Mary Finley, Flora; Miss. L. E. Rippy, L. A. Steward.

AGRICULTURAL NOTES.

ALAMEDA.

Gazette May 31: Alameda Blackberries.—This county supplies the Metropolitan Market with not only the choicest, but very earliest blackberries. Gideon Auglinbaugh, who resides on the "Encinal," has for years past made the culture and growth of blackberries his specialty. He has suceeded in producing a new variety, to which he has given his own name. It is said that it will ripen in our soil six weeks earlier than the Lawton blackberry, of world-wide reputation. Last year the berries, which are quite tart, ripened early in May. This year they did not reach the same point until the 20th, owing to the backwardness of the season. Mr. Auglinbaugh has only two hundred plants on his place in Alameda, but at Napa he has several thousand younger ones, and next year will have berries for the market.

Last week I took a drive about the country in this vicinity, inspecting the crop prospects. I was astonished to see the grain looking so fine. Back in the hills toward Dublin the harvest will be as great as last year. The fruit crop also, promises to be good.—*Transcript.*

AMADOR.

Ledger May 31: Stormy Weather.—During the week the weather has been quite changeable. On Wednesday a cool damp south wind prevailed and early in the evening a very light fall of rain was had, with several showers of hail. At bed-time all was bright and clear, but Thursday morning a strong cold wind came from the southwest, and heavy dark clouds hung about the mountains to the East. Rain now would be a great detriment to our hay crops, and we don't think would benefit our grain fields any. The fruit and garden truck would not be damaged by a few days rain, bnt since the good clerk has held his spite so long he may as well walk off with it for a few weeks longer.

Dispatch, Frost.—The werther in this vicinity has been remarkably cold for this season of the year during the past week, and on several occasions, frost has been seen by early risers; but not enough, however, to do much damage to vegetation.

ALPINE.

Union May 24: Violets, Harebells, Golden Erysimum, Sweet William, Fleur de-Lis, and a variety of nameless blossoms, form the boquet of wild flowers given us on Frlday. We have frequently noticed that the most brilliant and beautiful wild flowers grow on the higher ranges of the Sierras, but they are almost invariably scentless; while in the valleys they are smaller, but often of an almost overpowering perfume. Here we have both; lovely colors and delicate perfume; the happy medium that should govern all things. The ladies have our thanks.

Snow for a covering would seem to be a rather cool way of planting seeds; but as we were drilling in peas, lettuce, radish, etc., day before yesterday, the white flakes fell so fast as to cover up the rows as soon as made. Well, the old saying is that snow is the poor man's manure, so we may expect a fine crop of vegetables from that planting.

CALAVERAS.

Citizen May 31: We have had a variety of weather the past week, and by way of a change we had a slight shower of rain this evening. The crops are about all harvested, and the yield is much better than I thonght it wonld be. Snmmer fallowed yields about half a ton to the acre, while that which was sown after the first rain will yield about half that much. What it lacks in quantity it makes up in quality.

WOOL SHIPPED.—Tuesday morning last Zwinger's freight team took to Stockton 9,000 pounds of wool, the spring clip of the sheep owned by Messrs. Robertson & Wallace. This season wool is worth from 16 to 18 cents—quite a difference between the present and last year's prices, although the present value is sufficient to make wool-growing one of the surest and most remunerative of our industrial pursuits.

COLUSA.

Sun. May 28: Harvesting has commenced, and the crops are turning out better than we expected. Many commenced cntting grain for hay, and found it to be too heavy, and are now harvesting, with a yield of 20 bushels.

A heavy shower passed through the county to-day, helping the late crops.

CONTRA COSTA.

Gazette, May 31: CROP RETURNS.—Returns of acreage and condition of crops have not yet been received to the extent anticipated by the reporter of the Farmer's Club; but further returns are expected, and when received a close approximate estimate of the season's grain yield in the county may be made. At this writing, the only returns that have been received we summarize as follows:

Mr. L. I. Fish, May 3d, for the Martinez School District, reported on 1,215 acres of wheat and 260 acres of barley as against 950 of wheat and 250 of barley in the same district last year, looking better on the whole than last year, and promising a yield of about ten centals per acre.

Mr. Nathaniel Jones, May 5th, for the Lafayette neighborhood, reported a fair prospect at that date, but no more rain, and with dry winds, without fogs, the crops would be cut very short.

Mr. Platt Gregory, May 27th, for the Oak Grove School District, reported 4,575 acres of wheat and 455 of barley as, against 4,410 acres of wheat and 465 of barley last year. From three to five hundred acres of wheat, late sown and not likely to be worth cutting. The grain of the earlier sowing had much improved with the recent cool weather, and promised a yield of at least ten centals per acre, and with a continuance of the favorable weather up to harvest time, as last year, twelve centals per acre may be expected.

WEATHER AND CROPS.—Though we have not had the heavy dews during the past week, that so greatly refreshed the growing grain occasionally for the preceeding period of several weeks, the weather has generally continued quite favorable, and as the crops reach nearer maturity there is the more assurance of a fair yield.

FRESNO.

Expositor, May 28: CROPS.—We learn from Mr. M. J. Church, one of our most enterprising farmers, that nearly all the grain that was sown early and had the benefit of the first rains will make grain, perhaps not as good as some previous years, but at least a living crop. The grain sown after the first rains will not even make hay. Our farmers should profit by this experience and sow their grain early, and let it have the benefit of the first showers.

WE have been shown specimens of wheat growing in this county, the stalks of which were over five feet in length, and the heads six inches in length, and well filled. From this it would appear that the prospect for fair crops, in at least a portion of the great San Joaquin Valley, are promising, notwithstanding the complaint of a want of rain.

INYO.

Independent, May 24: CROPS.—Though fruit generally in this county, grapes excepted, was pretty much all killed by the frost, Mr. J. P. White's peach orchard was an exception to the rule. He has some forty or fifty trees that bid fair to produce from one to three hundred ponnds each of good fruit. Judge Gnnnison, on the neighboring place, has a number of peach trees pretty well loaded. The season is somewhat backward, but the grain and grass crops are said to be looking splendidly all through the county.

KERN.

Courier, May 31: If only one-half the area that is intended, is sown with alfalfa this fall in this valley, about two hundred thousand pounds of seed will be required. This, at present prices, will cost eighty thousand dollars. This large sum should be retained at home. Those who have fields of this valuable grass should by all means allow one crop to go to seed. Three crops may be cut for hay and the fourth allowed to ripen. It produces more seed than any other variety of the cultivated grasses, and may be gathered as easily and by the same process as a grain crop, and the straw is eaten with the same avidity by the domestic animals as when in the shape of hay. When allowed to ripen the next crop does not start up immediately, but an interval of two or three weeks elapses before a new growth commences. In regard to the yield and profit of producing the seed, we are told of a man in San Bernardino county who sold the crop from forty acres, in 1870, for seventeen hundred dollars, the rate obtained being sixteen cents per pound.

MONTEREY.

Democrat, May 31: Onr valley crops are steadily approaching maturity, under the infinence of cool weather, very favorable to grain. The average yield is likely to be larger than we estimated last week, as we hear of instances which promise a harvest equal to that of any season. For example, John Abbott would bet a horse that he would have 100 bushels of barley to the acre from 200 acres; and J. K. Triplett counts on an average of 33½ bushels from a tract of 350 acres of wheat and barley on the Buena Vista rancho. There are plenty of similar cases.

Pajaronian: We are sorry to say that the frost on Tuesday and Wednesday nights, did great damage to potatoes and other crops in the valley. Perhaps the damage is not so great as is now thought. At least we can only hope so.

NEVADA.

Transcript May 30: INJURY BY FROST.—For two nights past, heavy frosts have prevailed in this locality, and great damage has been done to the grapes and vegetables. Wednesday night, especially, the frost was very severe, ice forming on water standing in vessels under shelter. In many localities, potato tops have been frosted. Nearly all the tomato plants are destroyed, Mr. Leme, proprietor of the French garden, having 2,500 frost bitten. The grapes are also considerably injnred, but as these will be replaced by new fruit shoots, the damage to the grape crop will not be great. Nearly all the tender vegetables in the gardens in this locality are entirely destroyed.

NAPA.

FINE WHEAT.—*Register*, May 31: Geo. E. Goodman, Esq., has just favored us with a very fine sample of growing wheat, from the field of Mr. John Finnell, near Yonntville. The handful brought in is about 5 feet high on an average, and Mr. G. tells us that Mr. F. has a field of 150 acres as good as this. The grain now presents a beautiful sight, waving like a sea, in the wind. It is mostly of the "Club" variety. The field was plowed and sowed since the rains, and Mr. F. expects to harvest from it 3,000 sacks of grain. We should like to hear of more of the same sort.

PLACER.

Herald, May 31: CROP PROSPECTS.—Persons from Lincoln and the agricultural portions of the county, inform us that wheat and barley is filling and ripening finely, and that the early sown grain is almost universally sure to yield a full crop. The hay is about all secured in good order and the crop is ample; reapers and headers have been at work in barley fields, and with next week will commence the wheat harvest. Putting all the information we can get together, we may safely say, the crop is an average in this county, with a prospect of over an average price ruling for grain. Summer fallowing is better than irrigating, and is almost sure to be followed by a good crop in this county.

SAN JOAQUIN.

Independent, June 2: THE CROPS IN SAN JOAQUIN.—Within the last few days we have conversed with farmers from nearly every part of this county, and from them we learn that the prospect for a fair yield of grain throughout the whole county is good. On the west side of the San Joaquin river the grain has done remarkably well during the last two weeks, and fields that were considered to be entirely ruined by the drouth will now produce at least half a crop.

From the sand plains east of the river we also have very encouraging reports, and some farmers in that locality expect to harvest as much as usual. The total yield from that district will probably be over half as much as last year. The best reports come from the summer fallowed lands north and east of Stockton, on which the crop is reported to be unusually good, some farmers expecting to harvest from five to ten bushels more per acre than last year.

The irrigated district on the Calaveras river will also produce immense crops. Jndging from all reports that we have received, we deem it safe to estimate that San Joaquin county will produce from two-thirds to three-fourths as much grain as last year, which is a much better showing than could have been expected three weeks ago.

Farmers inform us also, that the quality of wheat will be much better than was expected, the late cool weather being very favorable to the growth of the kernel.

Argus, May 31: While on the Merced river this week, we learned that the cotton crops were quite promising, notwithstanding the ravages of the catapillar, which has attacked the cotton in some fields. The plant grows most luxuriantly, and the soil and climate of the Merced river bottom seem perfectly adapted to its production.

SANTA BARBARA.

Press, May 24: We are tempted to tell what a quiet, industrious Yankee, right from the Hub, has done in Santa Barbara within a few months to lay the foundation or a snug and beautiful home, and thus afford people like him, now at a distance and thinking, perhaps dreaming, about Santa Barbara, an opportunity to judge whether it be worth their while to make the venture. Our Yankee is Mr. Guy White, who left the classic suburbs of Boston better known as Cambridge, some time last autumn, and arrived here in October. Like a wise man, he brought with him his household gods, wife, child, and wife's sister, modest Miss B, In a few days he had bought a quarter of a block a little above the conrt-house, of Mr. Stevens, in that most rightly and attractive portion of the town, where he soon had a neat little "regular" New England cottage erected, 22x26 feet, story and a half, with kitchen and porch in the rear, providing for parlor, dining-room and stair-way, with four good bedrooms. Of course the house is painted white and has green blinds. All abont the house and yard he has planted trees, shrubs and flowers, and in half a year's time has apple, almond, and other trees in blossom, fig-trees with their first crop, grapes on yearling cuttings and a vegetable garden which would quite turn the heads of all his old neighbors; and all this has been accomplished without special effort, and rather as a matter of course.

SANTA CLARA.

Mercury, June 3; We were told by a farmer yesterday, that the hay crop in this valley this season, will be greatly in excess of the yield of last year.

Gilroy Advocate, May 31: HARVEST,—All around us our farmers are mowing hay "while the sun shines," and the yield is good. While we hear complains from numerous counties in the State of the almost total failure of their grain crops, we should be truly thankful that we have no canse of complaint.

FINE GRAIN.—Samples of volunteer wheat and barley, grown on the farm of Mr. James Dunne, of San Felipe, may be seen at our office, The barley is two months growth, from soil which has not been plowed in six years. The straws are five feet high, and both the wheat and barley will compare favorably with any cultivated grain. We know this, for we gathered them in the field and compared with other grain.

A BEAUTIFUL FIELD.—While taking a stroll for recreation on Sunday evening last we involuntarily strayed to a point of unusual interest. Bordering on the east of Gilroy is an enclosed field of 3,000 acres, as level as a floor, without the least undulation. This field is owned by our well known townsman, Julias Martin, whose homestead lies adjoining, and is robed in green with the most luxuriant clover and timothy we have ever seen in this State, even in more favorable seasons, averageing in hight probably three feet. Scattered here and there were small herds of cattle, rolling fat. The soil, which is quite moist, is adapted to the cultivation of any of the products of this climate. This is indeed, an unusually fine body of land, yet there are other tracts in this vicinity equally as attractive and valuable.

SONOMA.

Argus, May, 30: HARVESTING.—In all directions our farmers are now in the midst of their haying; large quantities down, and more being constantly cut. We hope we may this year be spared the traditional rain, which must needs come every year just too late to do any good, and just early enough to spoil all our hay.

Democrat, May 31: SALE OF RANCH FORT ROSS. Mr. James Dixon sold this week, 2,500 acres of the Ross Ranch, including the Fort buildings to G. W. Call, San Francisco, for the sum of $35,000, and stock, mainly milk cows, for $10,000. The deed will be recorded next week. It is the intention of Mr. Call to reside upon the ranch. Mr. Dixon informs us that he will build a house for his own use in the timber land above the Fort on a part of 3,500 acres which he reserved.

STANISLAUS.

County News, May 30: THE CROP YIELD.—With anything like favorable weather, we think it is safe to set our county down this year for very near a half crop. Much of course depends upon the filling or plumpness of the grain. Shonld the fierce winds, now so prevalent continue, and then cease during a heated term of the thermometer, say at 135 in the sun, there certainly would be much danger of the grain kernels being affected by the heat, and for the want of moisture. Thus far the weather has been remarkably favorable for the maturing of grain.

The cool weather has given the moisture a chance to rise to the surface of the soil. Had it not been for that fact, there can be no doubt, our yield would have been reduced to one-fourth, or a fifth of a full crop. The present out-look is much more favorable than could have reasonably been anticipated one month ago. Many fields of grain since that time have actually improved. With a continuation of the same favorable weather, it is believed that the 400,000 acres ploughed and sown to grain in our county should produce at least 3,000,000 bushels.

SISKIYOU.

Union, May 31: GRAIN PROSPECT.—We learn that the prospects for large crops of grain in this county the present season, if not better than ever before, are at least better than they have been for several years past. This we believe is the present condition of the crop in all parts of the county at the present time. There are of course many fields that would be much improved by more rain; then again it is possible that the crops may be injured by frosts. Sometimes grain is seriously injured particularly in Scott Valley, by frosts just when it is in blossom. A frost occurred about or after the middle of June, 1864, which so damaged a large part of the wheat crop in Scott Valley that it was never cut except for hay. If no

[Continued on Page 364.]

The Vienna Exposition.

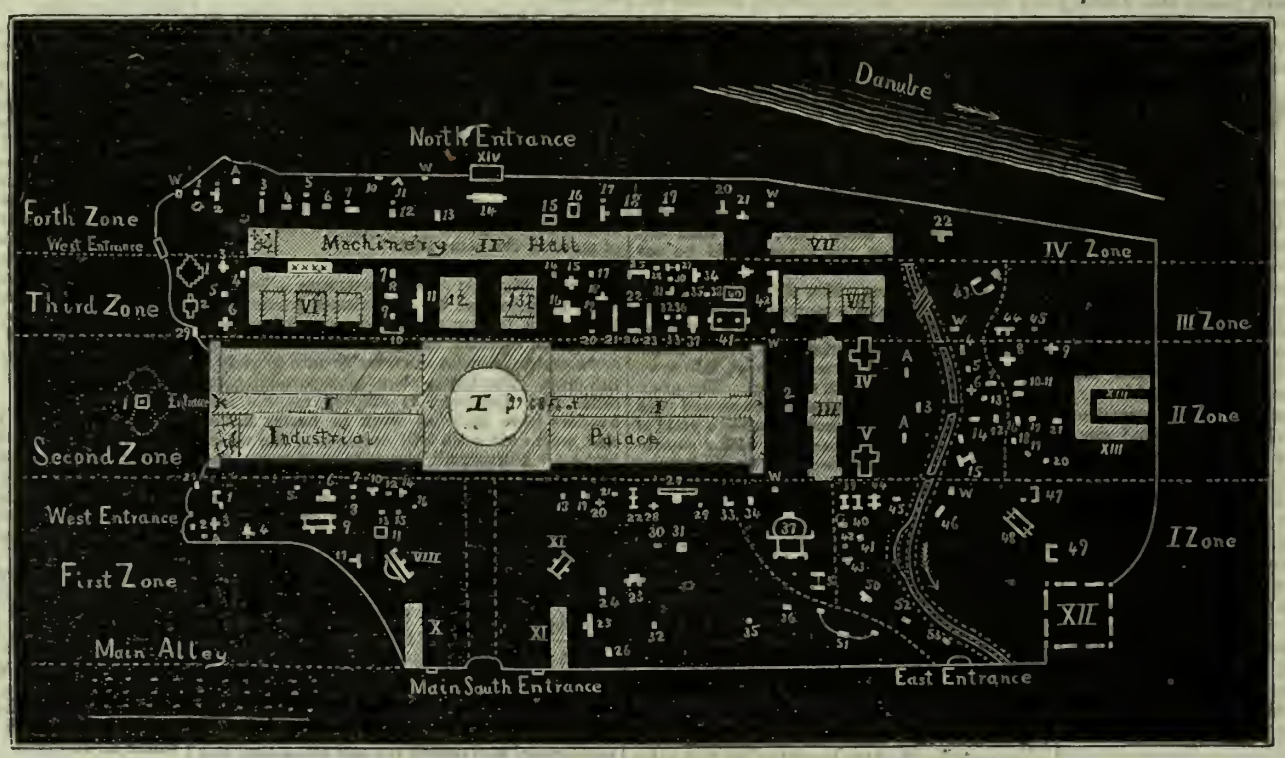
FROM OUR SPECIAL CORRESPONDENT—GUIDO KUSTLE]

A week from now the Emperor Franz Joseph and the Empress will he received at the pavillion by the Protector, Archdnke Carl Lndwig; the President, Archduke Rainer; and the Director, Baron Schwarz. The present princes and dukes will be greeted by the Emperor, and the high compsny will then proceed into the rotunda of the palace. At the same moment the national hymn will be sung by several "Sing-vereins," accompsnied hy Stranss' Orchestra. The Emperor and Empress take a place on a throne-estrade, where there is room for the prominent high guests and the archdukes. After the hymn the Emperor will deliver the opening speech, declaring that the Vienna Exposition of 1873 is opened. Archduke Carl Ludwig will answer as Protector, and Archduke Rainer as President of the Imperial Exposition Commissioners. A speech by the Mayor of Vienna will conclude the ceremony. The commissioners of the different conntries go to their respective galleries to meet the Emperor in his ronnds.

To the present dsy, however, in the American department not a single box has been opened, except in the machinery hall, as our commissioners will probahly keep awsy from their gallery. The Russians are just as far in their "putting up" as we are, occupying the extreme eastern end of the building. I send yon

A Plan of the Different Buildings

and pavilions as situated within the limits of the Exposition.



Ground Plan of the Exposition Rayon, at Vienna, with all Extra Buildings, Pavilions and Separate Expositions, 1873.

The numbers and letters on the accompanying cut signify: I. Palace of Industry; II. Machinery Hall; III. Art Hall; IV. Pavilion of Arts; V. Exposition of Art Amatuers; VI. Western Agricultural Hall; VII. Eastern Agricnltural Hall; VIII. Pavilion of the Jury; IX. Emperor's Pavilion; X. Office of the Directory; XI. Post, Telegraph and Custon-Honse Offices; XII. Cassern; XIII. Exposition of Horses; XIV. Railrosd Station; W. Watch-Honses; A. Water Closets.

In the First Zone.

1. Americsn Tavern; 2. Bier Halle of the Pilsen Brewery; 3. Bier Halle; 4. Hnngarian Wine Honse; 5. American Bar-Room; 6. Pavilion of the "Nien Presse;" 7. Swiss Confectionery; 8. Pavilion of Mnsic-Boxes; 9. Bire Halle; 10. French Tavern; 11. Pavilion of the Duke Monaco; 12. Pavilion of the Domain Finsponk; 13. Swedish School House; 14. Swedish Army Exposition; 15. Swedish Hunting Pavilion; 16. Gothic Msusoleum; 17. Boiler Room; 18. Kiosk of the "Snedhahn;" 19. Kiihn's Dissectable House; 20. Pavilion of the "Erste Œsterr Sparbank;" 21. Stsrk's Pavilion; 22. Pavilion of Little Children; 23. Restauration d Fréres Provencean; 24. Salad Lettura; 25. Tavern; 26. Winehouse; 27. "Eisenhof" Exposition Hall for Metal Industry; 28. Pavilion for Austrian Medicinal Springs; 29. Pavilion of Tobacco and Cigar Specialties; 30. Pavilion of Perlmoser Cement Wares from Nussdorf; 31. Russian Tavern; 32. Stirian Wine Honse; 33. Russian Dwelling House; 34. Exhibition of the "Oesterreichischen Lolyd;" 35. Indian Tent; 36. Iron Hot-House; 37. Palace of the Viceroy of Egypt; 38. Japanese Buildings; 39. Circle Oriental; 40. Turkish Dwelling House; 41. Turkish Bazar; 42. Turkish Coffee House; 43. Persian Dwelling Honse; 44. Exhibition of the Imperial Royal Marine Ministry; 45. Light-House; 46. Photographic Association House; 47. Farm House of the Imperial Agricultnral Society; 48. Sanitary Pavilion; 49. Bnilding Yard; 50. Italian Tavern; 51. Exposition of the Horticultnral Society; 52. Iron Fnrniture Pavilion; 53. Gardener's House.

Second Zone.

1. Light-House; 2. Ahmed Fonntain; 3. Triumph Port of a Brick Factory; 4. Russisn Farm House; 5. Pump House; 6. Iron Chnrch; 7. Swedish Farm; 8. Pavilion of Hnngarian Forestry; 9. Pavilion of Stirirn Forest Owners; 10. Saxonian Peasant House; 11. Szckler Peasant Honse; 12. Austrisn School House; 13. Vorarlberg Farm; 14. Anstrian Turner House; 15. Pavilion of Glass Paintings; 16. Slavakisn Pleasant Honse; 17. Croatian Peasant Honse; 18. Rumänias Pessant House; 19. 20. Peasant Houses from near Presbnrg.

Third Zone.

1. American Tavern; 2. Vienna Bakery; 3. English Working Mens House; 4. Pavilion for Seeds; 5. Water Tower for the High Pressure Water Condnit Pipes; 6. Iron House; 7, Swedish Tavern; 8, 9, Norwegian and Swedish Fisher Houses; 10, Norwegian Garden Kioske; 11, Germany's Pavilion of Instructlon; 12, Germany's Pavilion of Industry; 13, Germany's Exposition of Mining Industry; 14, Boarding House; 15, Pavilion Duke's Coburg Goths; 16, Duke's Sotmarzenberg Pavilion; 17, Pavilion Manthner; 18, Stable Building; 19, Curtis' Obelisk of Cement; 20, House of Artificial Stone; 21, 22, 23, Verderberg's, Innerberg's and Carinthia's Mining Industry; 24, Brewery; 25, Machine Shop Company's Building; 26, Tar and Asphaltam; 27, Bnildiug Ornaments of Zinc; 28, Heffen's Machines Exposition; 29, 30, Rothschild's Bridge and Machine Exposltion; 31, State Exhibitlon; 32. Wood Ware; 33, Pavilion of the "Staats Bahn;" 34, English Tavern; 35, Bridge and Road Building Association; 36, Tyrolian Honse; 37, Additional Exposition for History of Inventors and Indnstry, and Pavilion for Ladies' Work; 38, Pavilion; 39, Dannbe Steamshlp Company's Pavilion; 40, Alsatian Peasant Honse; 41, Exposition of the Imperial Agricultnral Ministry; 42, Wine Hsll of all Countries; 43, Tavern; 44, Pavilion for Forest Industry; 45, Pavilion of arch Duke Albrecht.

Fourth Zone.

1. Bakery; 2. Boiler Room; 3. American Boiler House; 4. English Workmans House; 5. English Boiier House; 6. English Workmans House; 7. French Boilcr Honse; 8. English Gas Factory; 9. Gas Company, Limited; 10. Belglan Workmans Honse; 11. Machine Shop; 12, Swiss Boiler House; 13, Belgian Boiler House; 14, Pavilion of the World's Trade; 15, German Boiler House; 16, Germany's Pavilion for Brick and Ice Machines; 17, Austrian Boiler Honse; 18, "Nord Bahn" Pavilion; 19, Nord-west Bahn Pavilion; 20, Boiler House for Water Conduit; 21, Pavilion Ring Hofer.

Since the above was in type our correspondent writes as follows under date of May 2d: "The opening of the Exposition was effected yesterday, in the way I described in my last letter. The weather wss not favorable for the occasion. It rained at intervals throngh the day, and damaged many elegant dresses of ladies who were caught on foot. The palace itself was opened at nine o'clock, but a great many visitors started out before six, in the morning, visiting the different buildings in the rayon. The programme was to close the palace at 11 A. M., hut at this time one end of the carriages was at the portal of the Exposition, the other in town; There were many invited guests; free cards were also given to exhibitors and reporters of the press, of which there were over a thonsand. The regulrr tickets for the 1st of May were sold at $12.50 a piece, season tickets at $50, and for ladies $25. These season tickets are good also for the 1st of Msy. After the fourth, each single ticket costs 50 cents, and on Sunday 25 cents. The Prater alley wss crowded with splendid carriages; a large force of police was busy to preserve order and to regulate the movements of carriages, etc. In the rotunda of the palace at half past twelve nearly all the places were taken up. The dlplomatic corps were present all in gslla array and a great variety of brilliant military uniforms were seen, amongst them the Hnngarian magnates in their rich national costume. At 12 o'clock the Emperor and his guests entered the rotunda, while the popular hymn was sung by several "Vereius" accompanied by a selected band of music, The Emperor stepped np the estrade, on his arm the crown princess Victoria, of Germany, and the crown prince of Germany with the Empress, followed by the princes of Wales of Denmark, the arch-dukes, etc. It was a brillisnt company in which, amongst the ladies, the Empress was the handsomest; but there is no need of writing much ahont this affair as the particulars of the whole ceremony were telegraphed the next day to the *New York Herald* at the expense of about $7,500. For this purpose an American reporter, a French one, and Mrs. L. Mulhach from Berlin were engaged by the paper named.

In a clear, enphonious voice the Emperor declared the exposition of 1873 opened. After the ceremony the most of the visitors remained in the exposition rsyon till six o'clock, P. M. The exposition ls open, but several weeks of hard work ls at hand yet, before all will be arranged. The English, Belglan, French, German and Austrian expositlon is the most advanced, but it is premature to dcscribe anything of this sort.

A Vienna correspondent of the *Daily News* exaggerates in an article about the expensive living in Vienna, stating that a "moderate" dinner costs from five te six shillings, and thinks that from the 1st of May a dish of sonp will cost fifty cents. A moderate dinner, inclnding wine or heer, costs two shillings, or fifty cents, in a decent, but second-class restaurant. Even on the 1st of May, in the exposition rayon, a moderate dinner amounted only to seventy-five cents.

DYSPEPSIA.—Dr. Dio Lewis gives the following cure for dyspepsia: "Have a right good talk, with a fnnny anecdote or two, and half a dozen hearty laughs with each meal. This eating alone at a restnrant, and shovelling in the provender in solemn silence will give dyspepsia to an ostrich, and create a feeling of despondency in the stomach of a qnartz mill."

$5,000 Premium for Preserved Figs.

A gentleman of this city proposed, in our presence, the other day, to become one of ten persons who would make up a pnrse of $5,000 for the first and hest 5,000 pounds of preserved figs of California growth and mannfacture, provided they should he of good merchantable or commercial quality. We regard this as a most liberal proposition, and if nine other gentlemen of equal liberality conld he fonnd in the State, the prize would be well worth striving for, especially considering the fact that figs can be produced here with the same ease that apples or pears or peaches can, and, that when the process is rightly understood, they are as easily preserved as either of the last named fruits are dried.

Laying aside the proposition above stated, there are sufficient indncements in the prospective profits of producing and preserving the fig to indnce onr orchardists to enter largely into the business. The annual importation of preserved figs into the Unifed States is abont 6,000,000 ponnds, and the importation price or cost is abont 7 cents per pound, amonnting in ronnd figures to $420,000. Nearly all the figs consnmed in the United States comes from Tnrkey, which conntry also supplies Great Britsin with the same article.

They are imported in hnlk or in drums of from fifty to one hundred pounds each, and pnt np for retail in this conntry. They are selling from the fruit stands in this city at the rate of fifty cents a pound. We have been particnlar to set forth the above facts that onr people may realize the magnitude of a bnsiness that they seem to regard ss too small to be attractive or profitahle. The neglect of jnst such enterprises, snd the disposition to run into whest or to a ssmeness, instead of a diversity of prodnction retards the prosperity of our Stste, and detracts from the profitableness of our agricultural industries more than many of us have any idea of, nntil our attention is attracted to jnst such facts as the above.

Varieties of Figs.

There are many varieties of figs, each having some peculiar characteristic, but the varieties adapted to preservation for commerce are hut few. Nearly all varieties are great bearers—hence the expresaion "as prolific as a fig tree." The figs principslly preserved and imported into this conntry are generslly called here the White Smyrna, hut we have some doubts about the correctness of the name, from the fact that we prodnce a white fig nnder the name of the White Smyrna that is certainly not identical with the fig imported from Tnrkey. One or the other must be improperly named hy us.

How to Preserve the Fig.

We remarked, incidentally above, that the fig could be preserved as easily ss the apple or pear could he dried. Very few have been successfnl in preserving the fig so as to compsre favorably with that imported, and hence the mistaken idea that the process is difficult or that there is a great secret in it.

For preserving, the fig mnst not be picked from the tree until thoronghly ripe, and lt is better that lt be allowed to hang on until it hss shrunk considerably in size and the skin is wrinkled. They should then be spread on scaffolds in the snn and tnrned as often as every other day. Or what is better, they may be spread on the earth, leveled and packed for that pnrpose.

The earth, especially black adobe soil, is better than hoard scaffolds, for the reason that it absorbs heat through the day and retains it better during the night, and thus hastens the drying process. It reqnires experience to determine when the fig is sufficiently dried and not too mnch so, and herein the skill ln preserving figs is principally to be exercised.

We may say, as a general guide, that the dried fig when taken from the scaffold shonld he about two-thirds the size of the green fig before it is plucked from the tree, but must still be perfectly soft and pliahle. When dried to the proper stage gather them np, place them in a hasket and dip into scalding water for about a qnarter of a minnte. Then lift them ont and drain the water off and place in the sun jnst long enough to evaporate all the water from them, when they may be packed in sacks, hoxes, or any convenient receptacle for a week or so, after which they shonld be packed in small boxes or drums and closely pressed together.—*Sac. Record.*

Useful Information.

How to Clean Feathers.

Feathers may be cleaned of their animal oil as follows: Take for every gallon of clean water one pound of quicklime; mix them well together, and when the undissolved lime is precipitated in fine powder, pour off the clear lime-water for use. Put the feathers to be cleaned into another tub, and add to them a portion of the clear lime-water, sufficient to cover them about three inches when well immersed and stirred about therein. The feathers, when thoroughly moistened, will sink down, and should remain in the lime-water three or four days, after which the foul liquor should be separated from them by laying them in a sieve. The feathers should afterward be well washed in clean water and dried upon fine nets. The feathers must be from time to time shaken in the nets; and as they become dry, they will fall through the meshes and may be collected for use. The admission of air will be serviceable in drying. The process will be completed in three weeks; and after being thus prepared, the feathers will only require to be beaten to rid them of the dust.

To Clean Bonnet Feathers.

To clean white, brown or fawn-colored feathers, dissolve some fine white soap in boiling soft water, and add a small piece of pearlash. When the water is just cool enough for the hand to bear it, pass the feathers several times through it, squeeze them gently with the hand. Repeat the same process with a weaker solution of soap, and then rinse the feathers in cold water, beating them across the hand, to expel the water. When they are nearly dry, draw each fibre over the edge of a small blunt knife, turning it around in the direction you wish the curl to take. Then, if the feather is to be flat, place it between the leaves of a book to press it.

Black feathers may be cleaned with water and some gall, proceeding as above.

Why do we Oil our Whetstones.

Great men sometimes give utterance to arrant nonsense. Professor Tyndall, in his work, "Heat Considered as a Mode of Motion," asks the same question that we have placed as a caption to this note, and replies, in general terms that it is to prevent friction. We have seen it stated somewhere that a little carbolic acid dissolved in the water which is used to moisten a whetstone, will greatly increase the amount of friction, and thus promote the action of the stone on the steel instrument. If this be true, and there be no unforseen drawback, carbolic acid will prove invaluable to all who have to sharpen tools or grind metallic surfaces.

We oil our hones for several reasons. The first is, that almost all stones, unless oiled, become glazed or burnished on the surface, so that they no longer abrade the metal. The second is, that most stones, after being oiled, give a finer edge than they do in a dry or merely wet state. The pores of the stone become in a measure filled up, and while the action is rendered continuous, its character is altered. A dry stone is very apt to give a wire-edge to a tool, and although this sometimes happens when oil is used, yet it does not occur nearly so often. Some stones work better with water than with oil.

Hammering Iron to Make it Red-Hot.—In his lecture on "Heat," delivered recently at the London Institution, Mr. G. F. Rodwell alluded to a singular case of motion transformed into heat, namely, the rendering of iron red-hot by repeated strokes of the hammer. If Mr. Rodwell, who is so well versed in the history of science, will turn once more to the works of Robert Boyle, he will see that this "father of chemistry" had notions of transformation of mechanical movement into heat very nearly akin to it, if not quite identical with, those professed at the present day. Robert Boyle alludes to the rapid development of heat in an iron nail by repeated blows of the hammer *after it had ceased to travel* into the wood. It has been asked whether iron could be hammered cold until it become red-hot. Mr. Rodwell informs us that it can. Having requested a blacksmith to try the experiment, a piece of very tough iron was hammered with a moderately heavy hammer; it became hot, but would not scorch a piece of paper. It was then hammered by two men, one of whom used a sledge hammer, but with no better result. Presently a man, who was working in the shop, said he had often lit his forge fire by this means, before matches were plentiful. He took a nail such as is used for horse-shoes, and, after hammering for less than two minutes with a light hammer, part of the nail was brought to a light red heat. The blows were light but frequent, and the nail was partly turned at each blow.

Whitening Smoked Walls.—A method of cleaning and whitening smoked walls consists, in the first place, of rubbing off all the black, loose dirt upon them, by means of a broom, and then washing them down with a strong soda lye, which is to be afterward removed by means of water to which a little hydrochloric acid has been added. When the walls are dry a thin coating of lime, with the addition of a solution of alum, is to be applied. After this has become perfectly dry the walls are to be calcimined, or coated with a solution of glue and chalk.

How to Cool Water.—As the warm season of the year approaches a cool draught of water becomes a luxury which we may enjoy with a little care. By the following method, simple and inexpensive, water may be kept almost as cold as ice. Let a jar, pitcher or vessel used for water, be surrounded with one or more folds of coarse cotton, to be constantly wet; the evaporation of the water will carry off the heat from the inside, and reduce it to a low temperature. In India and other tropical countries, where ice cannot be procured, this expedient is common. Let every mechanic and laborer have at the place of his work, two pitchers thus provided, and with lids or covers, one to fresh water for the evaporation, and he can always have a supply of cool water in warm weather. Any person may test this by dipping a finger in water and holding it in the air on a warm day; after doing this two or three times he will find his finger uncomfortably cool. This plan will save the bill for ice, besides being more healthful. The free use of ice water often produces derangement of the internal organs; which, we conceive, is due to the property of the water independent of its coldness.

Natural Suction Pump.—Livingstone, the African traveler, describes an ingenious method by which the Africans obtain water in the desert: "The women tie a bunch of grass to one end of a reed about two feet long, and insert it in a hole dug as deep as the arm will reach then ram down the wet sand firmly around it. Applying the mouth to the free end of the reed, they form a vacuum in the grass beneath, in which the water collects, and in a short time rises to the mouth. It will be seen that this simple but truly philosophical and effectual method might have been applied in many cases in different countries where water was greatly needed to the saving of life. It seems wonderful that it should have been now first known in the world, and that it should have been habitually practiced in Africa, probably for centuries. It seems worthy of being particularly noticed, that it may be highly important to travelers in our deserts and prairies, on some parts of which water is known to exist below the surface.

Good Health.

Orange Peel Poisonous.

The *Pacific Medical and Surgical* journal says: Now that oranges are in every child's mouth, it is well for parents to know that fatal consequences may follow the swallowing of the rind. Many years ago we had in charge two little girls, sisters, four and six years of age, who were seized with violent inflammation of the bowels from this cause, Oue of them died in convulsions, and the other had a narrow escape. Since that time quite a number of instances, similar in character have come under our observation.

Quite recently we saw a child something over a year old, that was attacked with violent dysenteric symptoms, for which no cause could be assigned. The attack came on during the passage of the steamer from San Diego. The symptons were so identical with those which we had previously noticed to arise from poisoning by orange peel, that we were induced to inquire particularly if the child had had an opportunity of getting this substance in its mouth. We were informed that it had been playing with an orange and nibbling at it just before the attack of the disease. The discharges from the bowels were frequent, and consisted of blood and mucous. After a week of severe enteric inflammation, the child died. We have no doubt that the disease was brought on by the rind of the orange. Though but a small quantity must have been swallowed, yet a very small quantity of such an indigestible and irritating substance will often produce most serious consequences.

Effect of Diet.—The *Pall Mall Gazette* says Monsieur Cabasson has presented to the French Academy, a curious essay on the effect of diet on the moral and intellectual faculties of man. Its influence is, in his opinion, very great. In a passage of the "Miserables" Victor Hugo likens French vivacity to the light French wines, and English ponderosity "portarbeer;" and many Frenchmen are convinced that the distinguishing traits of the two nations may in a great measure be ascribed to the use of these beverages. But M. Cabasson has dived more deeply into the subject, and experimentalized on his own person with various articles of food. Coffee taken on an empty stomach, seems to have produced most startling effects. He informs us that immediately after imbibing it, his ideas acquired unusual profundity, his style in writing was cold but correct, while, on the other hand, his temper underwent a pernicious change; he became morose, egotistical and generally disagreeable. A moderate breakfast restored him to his normal state, and the disappearance of intellectual profundity was compensated for by an influx of genial and generous ideas.

The theory is as yet too undeveloped to admit of the prescription of a particular diet for every vice; but, as a general rule, M. Cabasson assures us that a diet of milk and vegetables is conducive to moral and intellectual superiority, and quotes Lamartine, who, in one of his prefaces, states, with that complacency with which only a Frenchman can talk of himself, that he attributes to diet, "the purity of feeling, the felicity of expression, and the exquisite serenity" which always characterized him. All Lamartine's friends know that he retained this serenity of disposition till his death; if he really owed it to a vegetable diet, it is a pity that the potato does not seem to have the same desirable effect on the agricultural classes in Ireland.

Walking.—Walking briskly with an exciting object of pleasant interest ahead, is the most healthful of all forms of exercise except that of encouragingly remunerative, steady labor in the open air; and yet multitudes in the city, whose health urgently requires exercise, seldom walk when they can ride if the distance is a mile or more. It is worse in the country, especially with the well-to-do; a horse or carriage must be brought to the door even if less distances have to be passed. Under the conditions first named, walking is a bliss; it gives animation to the mind, it vivifies the circulation, it paints the cheek and sparkles the eye, and wakes up the whole being, physical, mental and moral.

There is no unmedicinal remedy known to men of more value in the prevention of constipation than a few miles' joyous walking; let one follow it up for a week—a walk of two or three miles in the forenoon, and as much in the afternoon—and, except in rare cases, when a longer continuance may be made, the result will be triumphant; and yet nine persons out of ten would rather give a dollar a bottle for some nauseous drops or poisonous pills than take the trouble to put in practice the natural remedy of walking. Nor is there an anodyne among all the drugs in the world which is the hundredth part so efficacious, in securing healthful, delicious, glorious sleep, as a judicious walk.—*Hall's Journal of Health.*

Prolonging Life.—An eminent French chemist, Mr. Robing, in a memoir recently presented to the French Academy, announces his belief that the period of human existence may be greatly prolonged, and enters into an argument to show that his belief is based upon sound reasoning. His argument is, that the mineral matter which constitutes an ingredient in most of our food, after the combustion, is in our system to incrust and stiffen the different parts of the body, tend to render imperfect many of the vital processes. He compares human beings to furnaces which are always kindled, and says:

"Life exists only in combustion, but the combustion which occurs in our bodies, like that which takes place in our chimneys, leave a detritus which is fatal to life. To remove this, he would administer lactic acid with ordinary food. This acid is known to possess the power of removing or destroying the incrustations which form on the arteries, cartilages and valves of the heart. As buttermilk abounds in this acid, and is moreover, an agreeable kind of food, its habitual use, it is urged, will free the system from these causes, which inevitably cause death between the seventy-fifth and the hundredth year."

High-Heeled Boots for Ladies.—A London surgeon, Mr. P. Hewlett, reports several cases of serious features of limbs indirectly caused by high heels, which had tripped up their wearers; and he refers also to the distortion and injury to the foot that they often induce. He says: "Last year I was sent for to see a young lady in one of our London hotels. She wished to consult me about her foot. On seeing it I thought its state depended upon her boots, and I asked to see them. The boots were brought in by the lady's maid, but the only thing I could observe about them was the immense high heels. I said: 'It is the high heels of your boots that cause the mischief, and unless you diminish them I can do nothing for you.' She became quite angry, and said she could not alter them. "I can not do it and will not." Suddenly she again toned down, and said: 'Pray, sir, what would people say if they saw me walking about the park without high heels?' I said: "It is simply heels *versus* brains. If you have brains, you will cut of the heels; if you have no brains, you will continue to wear them.' She fortunately had brains, cut off the heels, and her foot got quite well."

Taking Medicine.—Napoleon, who was a man of grand intuitions, once said to the Italian Physician, Antonomarchi: "Believe me, we had better leave off all these remedies. Life is a fortress which neither you nor I know anything about. Why throw obstacles in the way of its defence? Its own means are superior to all the apparatus of your laboratories. Monsieur Covisart candidly agreed with me that all your filthy mixtures are good for nothing. Medicine is a collection of uncertain prescriptions, the results of which, taken collectively, are more fatal than useful to mankind. Water, air, and cleanliness are the chief articles in my pharmacopœia.

Medicinal Use of Nettles.—Dr. Nicholl says that the greatest preventive of yellow fever in Bermuda, is dried nettle, powdered and used as a condiment in all cooking. The Doctor resides on the Isle of Jersey, and, he uses it successfully among his patients. He preserves it like herb teas, and keeps it in a dry place. Dr. Thornton uses it as a stypic. He dips lint into nettle juice, and inserts it into a bleeding nose, with quick effect. He also prescribes it for goitre, for which it is a specific remedy. In this case he grinds fifteen of the seeds, and administers once a day. The juice of the nettle has a singular effect on steel, which becomes flexible by immersion in it.

Domestic Economy.

Different Ways of Making Tea.

The Chinaman puts his tea in a cup, pours hot water upon it, and drinks the infusion off the leaves; he never dreams of spoiling its flavor with sugar or cream. The Japanese triturates the leaves before putting them into the pot. In Morocco they put green tea, a little tansy and a great deal of sugar in a teapot, and fill it up with boiling water. In Bokhara every man carries a small bag of tea about him, a certain quantity of which he hands over to the booth-keeper he patronizes, who concocts the beverage for him. The Bokhariot finds it as difficult to pass a tea-booth as our own dram-drinker does to go by a gin-palace His breakfast beverage is Schitschaj, that is, tea flavored with milk, cream, or mutton-fat in which bread is soaked. During the daytime, sugarless green tea is drank with the accompaniement of cakes of flour and mutton-suet. It is considered an inexcusable breach of manners to cool the hot cup of tea with the breath; but the difficulty is overcome by supporting the right elbow in the left hand and giving a circular movement to the cup. How long each kind of tea takes to draw is calculated to the second; and when the can is emptied, it is passed round among the company, for each tea-drinker to take up as many leaves as can be held between the thumb and finger—the leaves being esteemed an especial dainty.

When Mr. Bell was traveling in Asiatic Russia, he had to claim the hospitality of the Buratsky Arabs. The mistress of the tent, placing a large kettle on the fire, wiped it carefully with a horse's tail, filled it with water, and threw in some coarse tea and a little salt. When this was near a boiling point, she tossed the tea about with a brass ladle until the liquor became very brown, and then it was poured off into another vessel. Cleansing the kettle as before, the woman set it again on the fire, in order to fry a paste of meal and fresh butter. Upon this the tea and some thick cream were then poured, the ladle put into requisition, and, after a time, the whole was taken off the fire and set aside to cool. Half-pint wooden mugs were handed round, and the tea ladeled into them, a tea forming meat and drink, and satisfying both hunger and thirst. However made, tea is a blessed invention for the weary traveler.— *Chamber's Journal.*

Family Secrets in Cookery.—Dishes used to be family possessions handed down by tradition; a mystery hung about them; the imagination was called in to assist. A respectful awe tempered while it enhanced the amount of fruition. The *Rambler*, we think it is, tells of an old lady who kept the secret of an old orange pudding till scarce failing breath enough was left to reveal it to her favorite daughter; and our own childhood can recall dishes with something transcendental about them. Nothing that we ever taste nowadays approaches that exquisite evanescent twang, half taste, half odor, which recorded its existence on memory. But we cannot enter further into this, the pathetic phase of our subject, except just to point out how much real pathos may and often does lie round the memory of some dish supreme to childish tastes, served under the direction of now silent lips, and by hands whose cunning remains to our fancy transmitted. — *London Saturday Review.*

Raised, Connecticut Doughnuts.— Heat a pint of milk just lukewarm, and stir into it a small cup of melted lard and sifted flour, till it is a thick batter, add a small cup of domestic yeast, and keep it warm till the batter is light, then work into it four beaten eggs, two cups of sugar rolled, free from lumps, a teaspoonful of salt, and two of cinnamon. When the whole is well mixed, knead in wheat flour until about as stiff as biscuit dough. Set it where it will keep warm, till of spongy lightness, then roll the dough out half an inch thick, and cut into cakes. Let them remain till light, then fry them in hot lard.

Soups.—All soups are better to be made with fresh uncooked meat, as that which has been cooked once has lost much of its flavor and nearly all its juices. It is therefore better economy to hash or slice your cold meat, and buy fresh for soup. Soup should not boil very hard, as that has a tendency to toughen the meat. Fat meat is not so proper nor healthy for soup as the leaner parts of the finest meat. The fat does not impart much flavor, and is not palatable. Soup may be kept till the next day; before it is heated over again skim off the cake of fat which congeals on the top.

Be Cheerful at the Table.—A correspondent of the *Pacific Coast Journal* writes that paper: "Your advice to be cheerful at meal times, is thrown away as far as we are concerned; we are not only cheerful but *jolly*. The dinner hour is one of hilarity. Why should I not be happy; I have the best husband in the world, a duck of a hat, a quarter section of land, a log cabin with all the modern improvements. My principal trouble is a disagreement with the hens as to the way they should make themselves useful; they insisting on setting, while I much prefer they should continue to lay."

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SAN FRANCISCO:

Saturday, June 7, 1873.

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Esparto Grass and Jute.

Not long since we had an inquiry for the seed of the Esparto, a species of grass native of the southern provinces of Spain, and famous for its value for manufacturing into cordage, cloth, etc. It enters largely into the canvass and cordage of the Spanish navy and merchant marine, and is considered as being next to imperishable from any action of the elements, but like everything else can be worn out by hard usage.

It is an excellent material for all sorts of plaited work, mats, shoes and similar articles exposed to damp. A new import of the seed has just been received by E. E. Moore, seedsman of this city. It is put up in $1 packages and can be sent by express or mail to any part of the world. A new invoice of June seed by the same party is now offered at $1 per ounce. Those who have been desirous of obtaining the seed of this invaluable fibre plant, can now supply themselves.

NEW FRUITS.—Every week adds its new fruits to our already bountifully supplied markets. In addition to strawberries, blackberries, cherries and apricots, with tomatoes, snap-beans, peas, cucumbers, green-squash and green-corn in their fullest perfection and abundance, we now find on stepping out, and within half a block's distance, the following accessions: Apples, ripe early Madeline pears, raspberries, plums and peaches. All these on Wednesday June, 4th. To our Eastern exchanges—though we have no designs on your local population, will you please make a note of the above.

The Incoming Wheat Crop.

During the last two months, speculation has been rife in regard to the probable wheat yield of the coming harvest. Both March and April were months of anxiety, for they came an passed almost with out a drop of rain. Even in April, many began to consider a general failure of the wheat crop as inevitable, except the early sown, which has all along given promise of an abundant yield.

Within the last three weeks, at the very season which usually seals the fate for good or ill of the late sown grain, a most remarkable change has been apparent in the tone of the country press throughout the State in relation to the wheat prospects. Despondency seems to have given place to hope, and now the prospect of a yield almost equal to that of last year, is by many hopefully predicted, the increased acreage making up for the deficiency of the yield per acre.

Now what has caused this change of opinion and can we rely in years to come, upon a recurrence of the causes that have produced this marked change in the condition of wheat, in May of this year? With very little or no rain, we find, instead of a daily receding and withering growth, as was expected, a marked change for the better, day by day. Now, there can be no other cause for this, than a cessation or non-recurrence of the dry northerly winds, that to a greater extent than before, have for the last three years prevailed at this season of the year.

Not only has this condition of climate been greatly in our favor, but along with it the fact of an almost uninterrupted prevaleuce of cool weather; cool days followed by colder nights being the rule; greatly lessening the amount of exhausting evaporation from the surface of the soil, and as the atmosphere has been at a high dew-point most of the time, the prevailing coolness has caused metallic roofs and the leaves of plants and trees to be dripping with nightly dews. From all these we can take this lesson that we need not entirely despair of our wheat crop, though not a drop of rain falls after the first of April.

Bull Ringing.

Dairymen and stock growers with herds of cows, always find considerable inconvenience in permitting their bulls to run loose in the herd, from the habit they have of "making light" of any kind of fence obstruction presenting itself when desiring to visit a neighboring enclosure. On taking a notion to perigrinate, and finding the fences too high for jumping, they invariably use their horns in the removal of what ever obstacle presents.

An effectual cure for this is found in the following prescribed arrangement or device. Put an ordinary "bull ring" in his nose—the ring can be procured at any hardware store—then, near the end of each horn and in front, bore a hole with a proper gimlet or bit, insert an eye staple and fasten the same with a small nut on the back of the horn. To one of these attach a small dog chain or other light chain, and passing it through the ring in the nose, carry to and fasten to the other staple, just loose enough that the ring may be partially sustained by it.

A similar plan is sometimes adopted, in which strong wire is used instead of chain, but this becoming bent, retains its position and finally causes the ring to cut its way out of the nose; it is therefore objectionable, but the chain is without this fault and perfect in its operation. We get the information from a Marin Co. dairyman of experience, who recommends the device as worthy of adoption.

Cotton Prospect.

We learn from parties directly interested in the growing of cotton the present year, that the prospect of another prosperous yield could hardly be better; that already the growth is 8 inches or more in hight, is of good color and healthy appearance, the seed generally came up well, no lack of moisture to insure a successful growth and nothing to damage the crop materially in prospect, if we except the army worm, which in a few places has put in an appearance but not to an alarming extent.

From the best information to be obtained there are between 1,500 and 2,000, acres planted to cotton in Merced and adjacent counties, and so far as seen and heard from, all give promise of a satisfactory growth; its present appearance being even better than at this time last year.

The Foreign Wheat Market.

From the London *Mark Lane Express* of May 5th, we quote, showing the continued upward tendency of wheat in the leading markets of Europe.

In England it is calculated that 500,000 acres intended for wheat, have been thrown upon spring culture, much of which had never been sown, while a large proportion of that which was sown in the fall had rotted, through the long continuance of wet, leaving the surviving plants in a weakly condition. Belgium has followed France in the advance of prices, as well as Holland and Hungary, and the German markets have tended that way; indeed a continental demand has sprung up for floating cargoes, a large cargo of California wheat being placed for Havre at 59s. 9d., with higher rates subsequently demanded.

Even with fine weather at Marseilles, wheat had advanced and sales very active. At Bordeaux prices were higher. At Courtrai there was a general improvement in prices. Liege notes an animated demand, at higher rates, with an export demand for second quality of wheat. Brussels, one shilling dearer for wheat, California and Spanish being worth 63s. 6d. native wheat 60s. Rotterdam noted a general advance in grain. At Hambro, wheat had risen 1s. to 1s. 6d. per qr., good wheat being worth 64 shillings. The price of wheat at Berlin was very firm.

We might extend our quotations to all parts of Europe with the same showing of advancing rates for wheat in all the great markets. It would appear from this, that so far as short crops and high prices of wheat in foreign markets can affect the value of our California surplus, our prospects are favorable.

First Export of Cotton.

In our issue of May 10th, we made mention of a cotton export per ship "Ontario" for Liverpool and crediting a city paper for the item. That paper stated that the cotton came from Visalia and vicinity. This was a mistake, for we learn there was not that amount of cotton—even if any at all—raised near Visalia or Tulare county last year.

The cotton so shipped, in amount 22,886 pounds, by the "Ontario" on the 11th of May, was by the Buckley Bros.; they with Col. J. M. Strong, C. S. Peck, J. B. Coconaur and a few others, being the pioneer cotton growers of the State; at least the first to establish the entire practicability of its culture on an extended scale in California.

It is with pleasure that we make the correction, giving to Merced county and the parties named, the credit justly due, of growing the first cotton shipped from California to a foreign port and market.

Farallone Eggs.

Hitherto the Sea-Island eggs have been plenty in May. Now May is passed, few eggs have appeared in this market. June is here and still they are very scarce. They sell at 35 cents a dozen, when hens' eggs are 25c. The cause is wanton and extravagant destruction. The birds have abandoned the rocky isles for more peaceful homes. We have pursued the same course with salmon in our rivers. The Fish Commissioners have just and wisely issued a prohibition against wanton destruction of salmon. If this is enforced, their threatened desertion of our rivers will be postponed. In our bay, all fishermen empty the small fish on the shore to perish. They should be compelled to return them to the water. We are introducing shad and other Eastern fish. Their capture should be prohibited for two years from this date. And we want guardians of the rivers, who know their duties and who will devote their time to diligent supervision. "Gentlemanly Politicians" are out of place in that avocation.

AN EXTRA PAGE.—Our readers will observe that we sometimes give a whole page of reading matter after the first page of advertisements; so that correspondents need not think we have neglected them entirely, because their articles are not found on the first few pages. From week to week we put more matter in type than our pages can possibly contain and when we feel that we can drop a page of advertisements for a single week without detriment to the interests of advertisers, we do it and dump in four extra columns of reading matter.

ON FILE.—Importance of thorough preparation of the soil before seeding; Sulphur and Gophers; Carmel Valley, the whole truth, etc; Farmhouse Chat; The Adjustable sideboard; Monticello, Napa Co; Strychnine or Phosphorus for Gophers; On Financial Reformation; On Raising Bramahs; Irrigated Wheat—engravings are ready; The "Patrons" Defining their Position—too late for this week.

Mesquite or Alfalfa.

There is no longer a doubt as regards the real value of these forage plants for general propagation in California for both hay and pasturage. With many, alfalfa stands first or is preferred to mesquite, and upon soils exactly suited to its growth it would doubtless be preferred, on account of its enormous productiveness and succulent condition through the entire summer; and if for any special reason a clover is preferred to a grass, doubtless alfalfa is just the thing, classed as it is, from its habit of growth, among the clovers.

But there are certain localities in the State where both have been tried, in which preference is given to mesquite. We instance Marin county, in the vicinity of Nicasio. For some reason, it seems difficult there to get a good "stand" of alfalfa, seeding as heavily as they may, whilst little or no difficulty attends the production of mesquite. The latter seem also equally productive, is a hardier plant, continues green and growing the entire season, is a rich and highly nutritious grass, and bears continued pasturage and cropping better even than alfalfa.

It is not uncommon with mesquite, first to feed it in spring by direct pasturage until the season is far advanced, then allow it to grow and cut the same for hay, usually an enormous yield, and from that time on till winter to pasture again by grazing. The hay produced from mesquite is by some preferred to that from alfalfa, for though producing an exceedingly rank growth, the hay has a soft, velvety touch, instead of a sharp or harsh one, and animals seem to be fully aware of this, as well as its highly nutritive qualities, and prefer it to almost any other kind of hay.

It will do to give mesquite a larger acreage than it has yet attained among our dairymen and stock growers. Further information of its merit can be had by visiting the district named, where it has already gained high favor.

Green Corn Fodder.

A Marin County dairyman, Mr. H. F. Taft, having by repeated experiment, satisfied himself of the value and importance of a full supply of green, succulent food for milch cows during the dry and heated term of the season, and having made test of various roots, clovers and grasses for this purpose, has decided upon the value of Indian corn sown broad-cast, or drilled thickly; the object being to obtain as large a yield from a given quantity of ground as possible.

The corn is sown at intervals, to be cut and fed to the animals as required, or when it has attained its fullest perfection. This mode of feeding has assumed an established form in very many places among the more important milk producing districts of the Atlantic States, and we would not be surprised to hear of its further introduction and use among California dairymen.

Tobacco Culture.

The cultivation of wheat is impoverishing our land, without making reasonable return to our farmers. To keep up the value of land, we must turn attention to other crops which will afford to pay the high cost of tillage and transport in this country. The experience of Mr. Kulp proves that tobacco pays here, when care is taken to cure it well. It is an exhaustive crop, and manure must be used to keep the soil in repair. The climate of California has one remarkable effect upon all its productions, viz: to reduce flavors. No fruit tastes here as elsewhere. This peculiarity must give to tobacco more delicacy. If ever we cultivate tea on our foot-hills, we may count on delicacy in the flavor. A chemist of this city has discovered a quick and inexpensive way to cure tobacco, so as to make it equal Havana. His professional preoccupation prevents general exploitation; but he has made many thousand cigars, which have fully confirmed his claim.

STATE AGRICULTURAL SOCIETY'S REPORT.—We are indebted to I. N. Hoag for a copy of the Transactions of the California State Agricultural Society for 1872. It is a volume of 784 pages, replete with information of a highly practical nature, in the form of essays and papers from some of the best minds in the State, on the subjects they present. It is a volume, that every farmer who can, should obtain a copy.

HORTICULTURE.

New Fruits — Picquet's Late Peach; President Wilder Strawberry.

As this new peach has received great praise in the South, and is much extolled by the *Rural Alabamian*, it will be likely to prove a valnable acquisition for California among the latest peaches of the season. The above paper states: "It is the evidence of all who have fruited it that it has no compeer. Large to very large, bright yellow, and of the most excellent quality, it cannot fail to become one of our most profitable market peaches, ripening as it does when good peaches are scarce, and the trees being fine growers and abundant bearers."

This magnificent peach originated in the orchard of Antoine Picquet, Bel-Air, Georgia. In 1858 grafts were cut from the original tree, which died the following year. After fruiting it for four consecutive seasons, it was put in the trade, the proprietors feeling assured at that time that it was destined to become a most valuable market peach. In this they were not disappointed, and it was a source of congratulation to them to have added this peach to their list of superior fruits, and saved it from destruction. It ripens with the *Smock*, to which it is immensely snperior in size, appearance and quality. The *Salway* also matures at the same time, but is also inferior to the Picquets from a limited experience in fruiting the former, and from reports of others who fruited both varieties side by side.

PRESIDENT WILDER STRAWBERRY IN THE SOUTH.—The report from the South is that in strong sandy loams they have never seen a strawberry that pleased them so well for all purposes as this new variety. The plant is very vigorous, hardy and productive, and the fruit of the largest size, of the handsomest shape and color, and of the most delicious quality. It is also added that it is in addition a good keeper and shipper. It is evident that they esteem this herry very highly in the South—so much so as to be considered as coming to be the "upper ten" market strawherry there. It wonld be well to test it in California. It originated like the Longworth Prolific, uear Cincinnati, in the nursery of Lewis Ritz, considered hy good judges to be the best school for strawberry culture in the State of Ohio. For a dozen or more years, Mr. Ritz has heen engaged in collecting all the approved varieties of this fruit that he could fiud or hear of in this country and in Europe, then testing them in his grounds with different modes of culture. He has experimented largely in growing new varieties from seed. The President Wilder has, like the Longworth, perfect hlossoms, and is rather late in its bearing, similar to the Kentucky.

New Varieties of Fruit.

It has been the opiuion of several European fruit cultivators, some of them eminent and reliahle in their professions, that many of the finest of the old sorts of apples and pears, except in a few highly favored situations and exposures, become so uncertain in their bearing —so barren—so unproductive—or so miserably hlighted—so mortally diseased—that they are no longer to be trusted, and they instance the Golden Pippin, Nonpareil,and Newtown Pippin apples, and the White Doyenne, Chaumontel and Brown Beurre pears, with others, as undeniable proofs of their just conclusions on this head.

But this doctrine has, we think, met deservedly a strong opposition by others, among whom are the most distinguished physiologists of the present day, who pronounce that all varieties of fruit will endure and remain permanent, as long as they are well taken oare of. By negligence, or through successive bad seasons in the East, or in Europe, they may become diseased, but a more congenial climate and careful culture will restore them and retain them, to all appearance, forever.

We oonsider that our highly favorahle California climate and soil are powerful and nndeniable arguments that the latter conclusion is a correct one. Where can we find snch large, fine, and perfect fruits? By late ex periments in planting the seeds of good sorts of pears we find that excellent new varieties have been produced, and this in one generation. Does not this speak volumes in favor of California in its effects on fruit and vegetahle productions, and give much encouragement to us to raise seedling fruits of all kinds.

We agree with the famous botanist, De Candolle, and this last seedling result in Californfornia shows it, that when "in the common mode of propagation, varieties are constantly liable to decay or become comparatively worthless, it is owing not to natural limits set upon the dnration of a variety; that it does not depend on the longevity of the parent tree; but upon the oare with which the sort is propagated, bnt, more than all, the natnre of the climate or soil where the tree is grown."

One good reason why we should originate seedling fruits is the now well known fact that a seedling tree, if allowed to grow on its own root, is always much longer lived, and often more vigorous than the same variety, when grafted upon another stock; and experience has often proved that in proportion to the likeness or close relation hetween the stock and the graft is the long life of the grafted tree. Thus it is useless to graft the pear on any stock, the thorn and quince for example, than its own. Thus a variety of pear grafted on a healthy pear seedling, lasts almost as long as npon its own roots as a seedling.

Grafts should be cut from the thrifty shoots that are thrown out by the upright extremities of a tree, or from the strong limb-sprouts; this way ensures vigorous growth and a healthy habit in the graft.

Where trees are in a declining state, or show what is called blight, a partial, if not a complete recovery may be often effected by the plentiful use of wood-ashes, bone dust, lime and blacksmith cinders along with common mannre.

Downing says: "The decay of varieties of the apricot or peach, much shorter lived trees hy nature, we seldom or never hear of. Varieties of both are now in cultivation, and in the most perfect vigor of 200 year's duration. This prohably is owing to the more natural treatment these trees receive generally. Varieties of the grape are said never to degenerate, and this is perhaps owing to th ir having very rarely been propagated by grafting."

It is well known that the whole middle and western sections of onr country, but particularly Califorania, abound more or less, with the finest pears and apples, of sorts that have heen, and are still to a large degree, in a state of decline on Long Island, in portions of New Jersey, near Boston, and in many other parts of the East of the United States, and of Europe.

THE ARTILLERY PLANT.—The "Artillery," or Pistol Plant is called by hotanists *Pilea alltiri-choides*, It was found a native of the West Indies. It is a very curious plant, and now getting to be pretty well known. It grows, *in shape*, something like a fern, but has no other resemblance. From the upper surface grow a number of the most minute red buds; and when the plant is immersed in water, or copionsly sprinkled, the buds nearest maturity open and disclose a little white flower, and at the same time open and emit smoke and make a slight noise, which is, of course, what has obtained for it the name of the Artillery Plant. The buds open in succession, keeping up a continual smoke and crackling for some time. Some specimens of it were exhibited in the late Floral Exhihition in our city and we ohserve it is hecoming now not uncommon in the nurseries.

Corn and its Varieties.

Among the indigenous grains of the American Continent, Corn—*Zea mays*—stands preeminently high, as regards its value to the human family as an article of food. We have many varieties of wild rice, wild oats, wild rye and other native cereals that would go far to sustain life, but none of them can take rank with corn or maize in its now almost-numberless varieties. It is this great variety that has caused a doubt with some as to their having originated from anything like a single species.

Doubtless, the mere difference of latitude or length of the growing season, or mode of culture, or quality of soil, have an influence in modifying a single species and be prodnctive of variations from the original type. Be this as it may, we now have varieties that, seem adapted to any phase of climate from the torrid through the entire of the temperate zones of the earth, in any land and country, though unknown to the rest of the world until the discovery of the American Continent by Europoans.

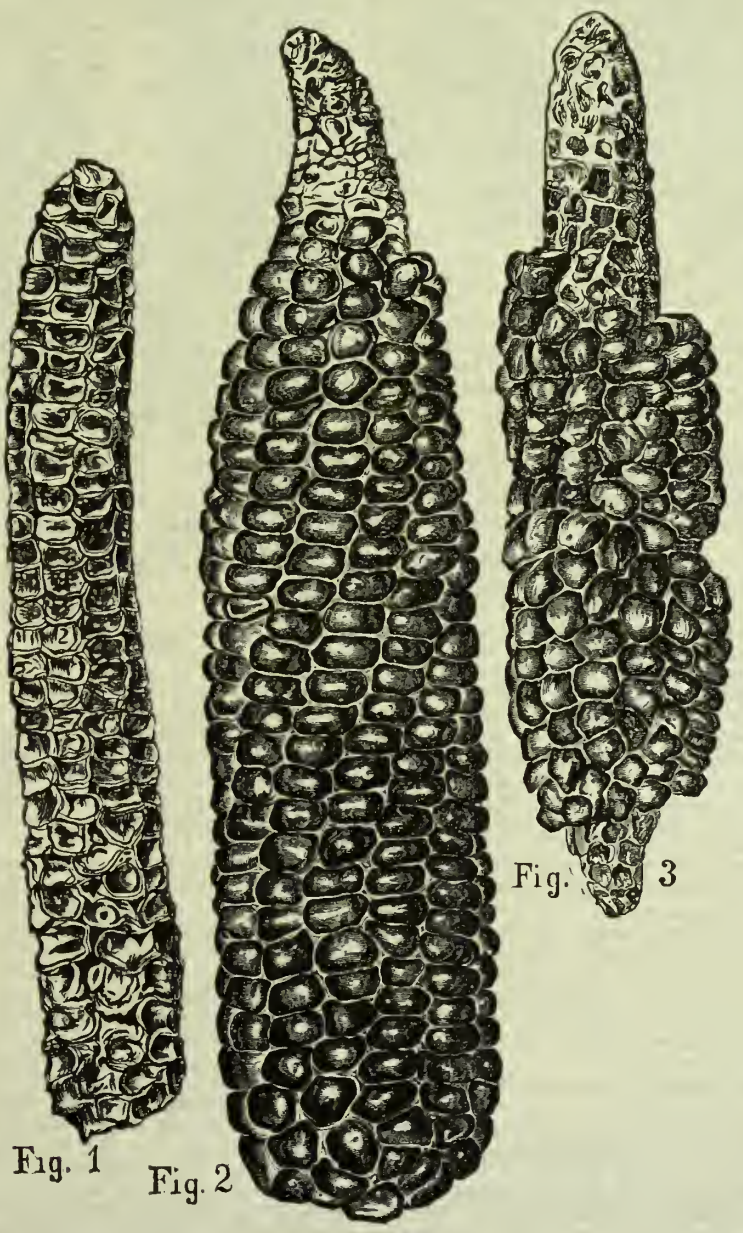
If any proof was wanting that the ancient inhabitants of this continent were the growers of corn, we have the evidence both from North and South America. The Smithsonian Institution has an ear of corn, Fig. 3, of our illustration found deposited in an earthen vessel eleven feet under ground, in a grave with a mummy, near Ariquipe, in Peru. The grains are rather sharp-pointed, small, and slightly indented at the apex, lapping one over the other, in thirteen rows. A small portion of this specimen is broken off, hence it is but four and a half inches long. When stationed at Camp Lincoln, Arizona, as post surgeon, the writer explored some anoient rock oaves near by, which were plastered in the interior, and obtained several corn-cobs, two of which were preserved, and are now in the museum of the Smithsonian Institution.

One is slender and narrow, Fig. 1, being five and one-quarter inches long; the other is thicker, but its length is only four and one-half inches. The former had ten and the latter eight rows of grains, with no more difference discernihle than exists among the corn raised by all the Puehlo Indians of to-day, and which certainly is the kind grown by them at the Spanish conquest of Mexico. The ruins in which the cohs were found have not been inhahited hy the present Indians of the country, who are Apaches, as they believe that evil spirits hover ahout them, and therefore will not enter them.

Corn may he said to be the most universal article of food cultivated hy the Indians of New Mexico, Arizona, California, Nevada, and Utah, while the tribes of the Indian Territory consider this grain their staff of life. The cultivation of corn has not been acquired by them from others. It is a matter of historical record that, when living in the Southern States, long before the white man set foot in the country, it was cultivated, and hy nearly all the Indians of the present United States to a greater or less extent.

The Indians who grow it in the primitive manner, and have the original corn of America, are the Pueblos of New Mexico and Arizona. The grains vary in color through shades of pink, hlue, and white, and the ears are generally rather small and sleuder. The blue variety, Fig. 2, is preferred for bread, and is sorted from the rest with much care, and stored by itself. The ear has fourteen rows of grains, which are full and plump, and is six and three-quarters long, and four and three-quarters inches around. The corn, after heing reduced to meal in a stone morter, has a peculiar hluish-white appearance.

From these original growths have come the wonderfully varied and interesting varieties that now furnish so many of mankind as well as countless lower animals, with a most important and coveted article of food.



INDIAN CORN. (Zea Mays.)

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., June 3d., 1873.

FOR WEEK ENDING MAY 20th, 1873.

RAILROAD TIES.—William H. Sterling, S. F., Cal.

SACKING ATTACHMENT FOR THRESHING MACHINES.—Walter Masterton, Stockton, Cal.

STRAW FEEDING ATTACHMENT FOR FURNACES.—David Morey, Watsonville, Cal.

MANUFACTURE OF SUGAR.—A. F. W. Paltz, Oaklaud, Cal.

LAMP HEATER.—William Friel, S. F., Cal.

PIPE TONGS.—Frank H. Merrill, S. F., Cal.

ORE FEEDER FOR GRINDING AND CRUSHING MILLS.—Chas. P. Stanford, S. F., Cal.

FASTENING POCKET OPENINGS. — Jacob W. Davis, of Reno, Nev., assignor to Levi Strauss & Co., S. F., Cal.

Notices of Recent Patents.

Among the patents recently obtained through Dewev & Co's Scieutific Press American and Foreign Patent Agency, the followlng are worthy of mention:

THREE-CORNERED FILES.—James B. Johnson, S. F., Cal. Elias Howe created a revolution in the social condition of the civilized world, and made a fortune for himself, when he invented the needle with the eye at the point, and it frequently happens that a mere idea involving no more than a flash of thought will render an entire art, which before was imperfect, a most complete and successful operation. This Mr. Johnson believes he has done. The ordinary three-cornered file is used exclusively for filing saw teeth. As usually constructed these files have three sharp angular corners, and as a consequence the spaces between the teeth which are filed will be left with a sharp angular bottom—a very good beginning for a crack. This, especially in band saws, is the cause of many breaks and cracks in the saw plate. In fact the greatest trouble heretofore encountered in the use of the hand saw, was the frequent breaking of the blade, owing, perhaps, to this very cause. Mr. Johnson simply makes these corners rounding so that the hottoms of the spaces will be curved, thus avoiding the breaking and cracking of the saw-plate. Who knows hut what this invention will be to the band saw what Howe's needle was to the sewing machine?

CHARGING DRILL HOLES.—Francis H. Lavalle of Auburn, Placer Co., Cal. This patent covers the employment of a simple tube or cylinder and a piston having a piston rod. When the hole has been prepared to receive the hlast, the charge is placed in the cylinder. The cylinder is inserted into the hole, and the piston is used as a ramrod to force the charge down into the hole where it can be oondensed by ramming if desired before forcing it out of the cylinder.



Song of the Quartz.

Science taught while I bave slumbered,
Heedless of the march of Time;
How in Nature's silent chambers,
Active agents wrought sublime.

How that nameless, subtle gases,
Hardening, moving into place;
Slowly changing and maturing,
Would enrich a future race.

Dawns the era?—yes 'tis breaking;
Doubts and doubters disappear;
Stalwart forms from slumber waking,
Rise to bless the pioneer.

Rise to search for indications;
Spur and angle trace with care;
Pierce the granite's stern formation;
Lay the surface croppings bare,

Onward rolls the tide of seekers—
Swifter flies the jarring wheels;
Wealth comes bearing to the movement,
All the force that genius wields.

Jetting stream and glowing furnace,
Rob me of my ancient trust;
Whirling pans in rapid motion,
Grind my fairest forms to dust.

Iron jaws and ponderous stampers,
Draws subsistence from my veins;
Spacious vaults—plethoric pockets,
Groan beneath increasing gains.

I am sovereign here no longer;
Guardian care of wealth is past,
Take my treasures—kept or squandered—
I am broken—crushed at last.

The Bridal Wine Cup.—A True Story.

"Pledge with wine—pledge with wine," cried the young and thoughtless Harvey Wood: "pledge with wine," ran through the brilliant crowd.

The beautiful bride grew pale—the decisive hour had come. She pressed her white hands together, and the bridal wreath trembled on her pure white brow; her breath came quicker, and her heart beat wilder.

"Yes, Marion, lay aside your scruples for once," said the Judge, in a low tone, going toward his daughter, "the company expects it. Do not seriously infringe upon the rules of etiquette; in your own house act as you please; but in mine, for this once please me."

Every eye was turned toward the bridal pair. Marion's principles were well known. Harvey had been a convivialist, but of late his friends had noticed a change in his manners—a difference in his habits—and to-night they watched him to see, as they sneeringly said, if he was tied down to a woman's opinion so soon.

Pouring a brimming beaker, they held it with tempting smiles toward Marion. She was very pale, though more composed, and her hand shook not, as smiling back, she gracefully accepted the crystal bumper and raised it to her lips. But scarcely had she done so, when every hand was arrested by her piercing exclamation of "Oh! how terrible!"

"What is it? cried one and all, thronging together, for she had slowly carried the glass at arm's length, and was fixedly regarding it as though it were some hideous object.

"Wait," she answered, while an inspired light shone from her black eyes, "wait, and I will tell you. I see," she added, slowly, pointing one jeweled finger at the sparkling ruby liquid, "a sight that beggars all description. And yet listen—I will paint it for you if I can. It is a lonely spot; tall mountains crowned with verdure rise in awful sublimity around, a river runs through, and bright bowers grow to the water's edge. There is a thick, warm mist that the sun seeks in vain to pierce; trees, lofty and beautiful, wave to the airy motions of the birds. But there a group of Indians gather; they float to and fro with something like sorrow upon their dark brows; and in their midst lies a manly form, but his cheek how deadly pale! his eyes wild with fitful fires of fever! One friend stands besides him—nay, I should say, kneels; for he is pillowing that poor head upon his breast.

"Genius in ruins! Oh! the high, holy-looking brow! Why should death mark it, and so young? Look how he throws the damp curls! see him clasp his hands! hear his thrilling shrieks for life! mark how he clutches at the form of his companion, imploring to be saved! Oh! hear him call piteously his father's name! See him twine his fingers together as he shrieks for his sister—his only sister—the twin of his soul—weeping for him in his native land.

"See!" she exclaimed, while the bridal party shrank back, the untasted wine trembling in their faltering grasp, and the Judge fell overpowered upon his seat. "See his arms are lifted to Heaven; he prays now wildly for mercy! Hot fever rushes through his veins! The friend beside him is weeping. Awe-stricken, the dark men move silently away, and leave the living and dying together.

There was a hush in the princely parlor, broken only by what seemed a smothered sob from some manly bosom. The bride stood yet upright, with quivering lips and tears stealing to the outward edges of her lashes. Her beautiful arm had lost its tension, and the glass with its little troubled red waves, came slowly toward the range of her vision. She spoke again; every lip was mute. Her voice was low, faint, yet awfully distant; she fixed her sorrowful glance on the wine cup.

"It is evening now; the great white moon is coming up, and her beams lay gently on his forehead. He moves not—his eyes are set in their sockets—dim are their piercing glances—in vain his friend whispers the name of father and sister. Death is there—death, and no gentle voice to bless and soothe him! His head sinks back! one convulsive shudder! he is dead!"

A groan ran through the assembly. So vivid was her description, so unearthly her look, so inspiring her manner, that what she described seemed actually to have taken place then and there. They noticed, also, that the bridegroom hid his face in his hands and was weeping.

"Dead!" she repeated again, her lips quivering faster, and her voice more broken; "and there they scope him a grave, and there, without a shrond they lay him down in the damp, reeking earth. The only son of a prond father, the only idolized brother of a fond sister, and he sleeps to-day in that distant country, with no stone to mark the spot. There he lies—my father's son—my own twin brother—a victim to this deadly poison!"

"Father!" she exclaimed, turning suddenly, while the tears rained down her beautiful cheeks, "father, shall I drink it now?"

The form of the old Judge was convulsed with agony. He raised his head, and in a smothered voice he faltered, "No, no, my child, in God's name, no!"

She lifted the glittering goblet, and, letting it suddenly fall to the floor, it was dashed into a thousand pieces. Many a tearful eye watched her movement, and instantaneously every wine-glass was transferred to the marble table on which it was prepared. Then, as she looked at the fragments of crystal, turned to the company, saying:

"Let no friend hereafter, who loves me, tempt me to peril myself for wine. Not firmer the everlasting hills than my resolve. God helping me, never to touch that terrible poison. And he to whom I have just given my hand, who watched over the dying form of my mother, in that last solemn hour, and buried the dear wanderer there by the river, in the land of gold, will I trust, sustain me in that resolve. Will you not my husband?"

His glistening eyes, his sad, sweet smile, was her answer.

The judge left the room, and when an hour after he returned, and with a more subdued manner took part in the entertainment of the bridal guests, no one could fail to read that he too, had determined to dash the enemy at once and forever from his princely home.

Those who were present at the wedding can never forget the impression so solemnly made. Very many of the party from that hour foreswore the social glass.

ARNICA HAIR WASH.—An exchange vouches for the following:—When the hair is falling off and becoming thin from frequent use of castor, macassar oils, etc., or when premature baldness arises from illness, the arnica hair wash will be found of great service in arresting the mischief. It is thus prepared: Take elder water, half a pint; sherry wine, half a pint; tinct. of arnica half an ounce, alcoholic ammonia, one drachm—if this last named ingredient is old and has lost its strength, then two drachms instead of one may be employed. The whole of these are to be mixed in a lotion bottle, and applied to the head every night with a sponge. Wash the head with warm water twice a week. Soft brushes only must be used during the growth of the young hair.

A CUTE youngster says: The Connecticut river is so called because it connects Vermont and New Hampshire and ents through Massachusetts.

Economy in Housekeeping.

When the young woman marries and commences housekeeping in another home far away from the one in which she was born and reared, her ideas are all immature, and need training. The mother under whose eye she learned the mysteries of the art of cooking—for an art it is—had all the care and bore the heat and burden of the day. Her smile was the reward when a triumph was achieved, her kindly admonition all the punishment when failure crowned the weary effort. If the *girl* forgot the time the cake was to remain in the oven, the mother came to her timely aid. If the woman forgets, no one is near to lend a helping hand, and the cake is spoiled, which is not economy. If the girl forgot the way the pies were to be made, she had only to run and ask mother. If the woman forgets, to whom shall she turn? The girl at home, dependent upon her mother's skill, is very differently situated from the young wife far away from home and friends. Her mother may have trained her well—may have taught her to economise as much as circumstances required—but still, when thrown upon her own responsibility, she may fail. Forgetting in the newness of her position the many little details of cooking, she consults a "cook book," and then she only plunges deeper into darkness, for, as a general thing, they are only blind leaders of the blind. It is well for a young housekeeper to have one on hand, as she can often find the time for cooking things; but the receipts are all so rich and expensive that one cannot cook by them if they care to practice economy. The better way is to cull receipts from the housekeeping departments of various papers, if you find any economical ones, and obtain all you can from old housekeepers. Copy them neatly and plainly into a blank-book that you can buy in any stationary store for ten cents; cut out printed headings and glue at the top of the page—but at intervals through the book: Bread—Cake—Pies—Puddings—Pickles—Preserves—Miscellaneous.

Hang this scrap-book up by a loop made of tape in some convenient place, and it will save you much hunting for receipts kept upon pieces of paper.—*Germantown Telegraph.*

Be Sensible.

Do not be above your business. He who turns up his nose at his work quarrels with his bread and butter. He is a poor smith who is afraid of his own sparks; there's some discomfort in all trades except chimney-sweeping. If sailors gave up going to sea because of the wet; if bakers left off baking because it is hot work; if plough-men would not plough because of the cold, and tailors would not make our clothes for fear of pricking their fingers, what a pass we should come to! Nonsense, my fine fellow, there's no shame about any honest calling; don't be afraid of soiling your hands, there's plenty of soap to be had. All trades are good to good traders. Lucifer matches pay well if you sell enough of them. You cannot get honey if you are frightened at bees, nor sow corn if you are afraid of getting mud on your boots. When bars of iron melt under the south wind, when you can dig the fields with toothpicks, blow ships along with fans, manure the crops with lavender water, and grow plumcakes in flowerpots, then will be a fine time for dandies; but until the Millennium comes, we shall all have a deal to put up with, and had better bear our present burdens than run helter skelter where we shall find matters a deal worse. Plod is the word. Every one must row with such oars as he has, and as he can't choose the wind, he must sail by such as God sends him. Patience and attention will get on in the long run. If the cat sits long enough at the hole she will catch the mouse. Always at it grows good cabbage and lettuce where others grow thistles. I know as a ploughman that it is up and down, up and down the field that ploughs the acres; there's no getting over the ground by a mile at a time.

SPARE THE BIRDS.—In Prussia, by royal decree, the wren, woodpecker, wigtail, titmouse, finch, linnet, starling, sparrow-hawk, cuckoo and twenty other birds, are protected from the onslaughts of boys and sportsmen. It is made unlawful to rob their nests, disturb their broods or catch them with snares, gins, or any similar devices. The Prussians are fond of good things, and they know their friends. To little attention is paid in this country to the preservation of the birds.

YOUNG FOLKS' COLUMN.

Don't be too Certain.

Boys, don't be too certain. Remember that nothing is easier than to be mistaken. And if you permit yourself to be mistaken a great many times, everybody will lose confidence in what you say. They will feel no security in trusting your word. Never make a positive statement, without you know it is as you say. If you have any doubts, remove them by examination, before speaking confidently. *Don't be too certain!*

"John, where's the hammer!"

"It is in the corn-house."

"No it is not there; I have just been looking there."

"Well, I know it is; I saw it there not half an hour ago."

"If you saw it there, it must be there, of course. But suppose you go and fetch it."

John goes to the corn-house, and presently returns with a small ax in his hand.

"Oh, it was the ax I saw. The handle was sticking out from a half bushel measure. I thought it was the hammer."

"But you said positively that you *did* see it, not that you *thought* you saw it. There is a great difference between the two answers. Do not permit yourself to make a positive statement, even about small matters, unless you are quite sure; for if you do, you will find the habit growing upon you, and by-and-by you will begin to make those replies to questions of great importance. *Don't be too certain!*"—*Young Pilgrim.*

A Real Gentleman.

A writer in the *Child's World* tells of an incident that we beleive will please our boys and girls. "I was passing through a pleasant, shady street," he says, "where some boys were playing at base-ball.

"Among their number was a little lame fellow, seemingly about twelve years old—a pale, sickly-looking child, supported on two crutches, and who evidently found much difficulty in walking, even with such assistance.

"The lame boy wished to join the game, for he did not seem to see how much his infirmity would be in his own way, and how much it would hinder the progress of such an active sport as base-ball.

"His companions good-naturedly enough tried to persuade him to stand one side and let another take his place; and I was glad to notice that none of them hinted that he would be in the way, but they all objected for fear he would hurt himself.

" 'Why, Jimmy,' said one at last, 'you can't run, you know.'

" 'Oh! hush,' said another, the tallest boy in the party. 'Never mind; I'll run for him, and you can count it for him,' and he took his place by Jimmy's side, prepaired to act. 'If you were like him,' he said to the other boys, 'you wouldn't want to be told of it all the time.' "

That boy was a true little gentleman.

HONEST SPEECH.—A little girl entered the sick chamber of her father, who had by his side a dish of inviting bananas. Her eye fell upon them, and their luscious appearance was so attractive that she found it impossible to leave the spot. She had a delicacy about asking for one, and finally, looking at them, she inquired if her father proposed to eat all of them. "Yes," replied the parent, "for you know I am sick," and then added, "you wouldn't take them away from papa, would you?" After a moment's thought, she replied, "No, wouldn't," and then paused, colored up, and ingeniously said, "but, papa, I tell a story when I say so." The honesty of the confession secured the bananas.

SPARE THE BIRDS.—In Prussia, by royal decree, the wren, sparrow, woodpecker, wagtail, titmouse, finch, linnet, starling, sparrow-hawk, cuckoo and twenty other birds, are protected from the onslaughts of boys and sportsmen. It is made unlawful to rob their nests, disturb their broods or catch them with snares, gins, or any similar devices. The Prussians are fond of good things, and they know their friends. To little attention is paid in this country to the preservation of birds.

AN INGENIOUS BOY.—The Anamosa (Io.,) *Eureka* says: "Mark Ward, a boy about 14 years of age, has constructed a sewing machine with a jack-knife, from pine boards and wires, that made perfect stitches. We didn't see the model, as he had smashed it and was getting up an "improvement."

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19v5-3m

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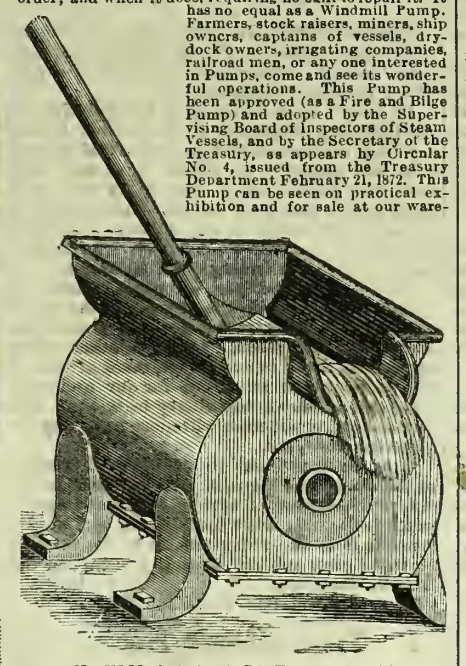
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6v26-awbp

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PURCHASERS please say advertised in Pacific Rural Press.

[Continued from Page 357.]

calamity of that kind comes this year, the crop will be abundant.

SUTTER.

Banner, May 31: BLACKBERRIES—There seems to be a good supply of blackbsrriss along ths river this year. From twelve to a dozsn Chinamen, more or lsss, pass thrangh town svsry afternoon with buckets full of them dangling from the end of a pole balanced across their shoulders. The personal appearance of some of the Celestials is not such as to excite any uncontrollable yearnings for blackberries of that variety.

DRY YEAR.—Bill Kennsdy brought us in half a dozsn heads of wheat of the white Chile variety, as a sample of 150 acres on the ranch of L. S. Sullenger. The heads are vsry large and well filled. Some of our ranchers are having such good crops this year that we shouldn't be much surprised if they preferred a "dry year" as a rsgular thing. Mr. Sullenbsrger's place is on the Tnle.

HARVEST COMMENCED.—Wednesday last two headsrs were started into the barley on Henry Burgstt's place, on the Tule, and others in the same neighborhood will commence in a fsw days. If our recollection servss ns right, this is about two weeks earlier than harvest commenced last year.

TULARE.

KING'S RIVER.—*Delta*, May 29: Our correspondent says the cotton crop is somswhat injured for want of an early application of water, and the grass-hoppers are attacking it. The cool weather is giving the grain a chance, and it is heading out better than was anticipated. The farmers are in much better spirits. We believe this is the case all over the country.

A ranchman in this county, who had a flock of 1,400 turkeys, recently lost all but 40 of them from a disease contracted, it is believed, by drinking from the same trough with horses that had spizootic.

YOLO.

Democrat May 30: JUBILANT—The farmers as well as evsrybody else are jubilant over the remarkable cool weather. The thermometer in our office for the last thres days, the hottest time of day, has stood at about 70 degrees. This will increass the wheat crop wonderfully.

OREGON.

Oregonian, May 31: The farmers say that "if it had rained a little more everything would havs been lovely."

Five hundred shares, at $100 per share, is to be the capital stock of the proposed agricultural works at Albany.

Mr. Philip Low, of Linn Co., is canvassing for subscriptions of stock in the company lately formed for building warehouses at Astoria.

Wool-buyers ars perambulating among the farmers of Washington Territory, and offering to buy the spring clip. Prices at present are too low.

The grain and hay crops in Polk Co., from thsir prssent appearance, promiss an unusually abundant harvest. Monsy is tight, and there is general good health and feeling.

A Marion county farmsr who doesn't do things by halves, has just finished sowing 200 acres of wheat for next year's crop. He expects to pasture it through the summer and fall with shesp, and thus make fully the expensss of plowing and seeding, but not let any stock whatever run on the ground when it is wet. By this means he expects to have a wonderful crop of wheat another year, and no doubt he will realize what he expects.

How to Destroy Gophers.

To abate the Gophsr nuisance use phosphorns, mixed as follows: Taks a stick of phosphorus (as usually sold in the cans,) get an old coal oil can, wash clean and cut it down about one-half from the top and put in about three pints of water, the phosphorus, and one cup of sugar, and gradually heat until the phosphorus is dissolved. Be careful not to make it too hot, or the phosphorous will taks fire; then stir in flour until you have made a stiff paste, and then gradually stir in wheat enough to fill the vessel, kesping it at a gradual heat during the opsration; stir until thoroughly mixed and then set aside for a fsw hours.

Go around in the morning about sunriss and for an hour or two aftsrwards, and put about 8 or 10 kernels of the grain in all of the holes newly opened, put welt in the hole, and at this season of the year when food is so plentiful for them put a dry clod of sarth over the entrance. In the fall or when the vegatation is scanty this precaution is unnecessary. By this method you may in a short time rid a large farm of this troublesome pest.

Seven years ago, when I came on the place where I now reside, there was a piece of rich bottom land along the banks of a slongh containing abont ten acres, that was perfectly honey-combed with gophers. I went over it every morning for two weeks and at first I would find as many as 150 holes newly opened, and at the end of that time I had nearly rid the tract of them. It worked so well that I found it profitable to go over the whole farm of 250 acres, although it was then in the spring and the ground had been seeded with grain which was two or three inches high.

But a better time is to go over it about a week before plowing or just after the first rain of the season, and it is surprising how they will grow "beautifully less."

After experimenting with different methods for twenty years in California, I have abandoned traps, strychnine, etc. for this short and sxpeditions mode of killing them by wholesale. C. S. H.

Centreville, May 30th.

The above, concise, sensible response to onr query of last week comes in good time, and will be appreciated by those who find the gopher a nuisance.

Irrigation vs. Gophers.

EDITORS PRESS:—In your paper of May 31 your correspondsnt, P., of Shingle Springs, asks "how to destroy or frighten off the pest of onr garden—the gopher."

He may find a solution to his qnestion in ths following experience of the writer: I have a young orchard started on a piece of ground that was formerly an alfalfa field, and alive with the pests. Aftsr sstting my orchard, I tried poison with poor success; there appeared to be no diminution in the nnmber of holes or amount of damage to my trees, stc., until I laid my pipes for underground irrigation.

Sincs I let water into my pipes, I have not ssen a sign of one in the vicinity of the pipes. As far as the water percolatss the gopher has abandoned the place. This is another strong argument (if one is needed) in favor of adopting nndsrground irrigation for our orchards, vineyards, gardens, strawberry beds, etc. The increase of production will more than pay for pipes the first year.

It is the dissemination of such information as the above on all questions pertaining to the different branches of agriculture, that helps to make your paper what the farming community concede it to be—indispensable to the farmers of this Coast, and the leading journal in the farmers' intsrests. E. F. AIKEN.

Glen Gardsns, Sac. Co., June 2, 1873.

The Grasshopper Plague.

Southern California is again visited by the grasshopper plague. These destructivs insects have appeared in immenss numbers on Warner's ranch, San Diego county, and are pressing northward, devouring all vegetation growing on the line of their march, and it is not unlikely that a great portion of the southern counties will be visited by them during the next few weeks. It is generally believed that there is no rsmedy against this scourgs.

When full-fledgsd and wsll scattered ovsr an extensive territory, it would bs utterly hopeless to attempt to cope with the grasshoppers, and no human arm could possibly stay their onward march of destruction, but at the time ths insects are hatched, and before they have gained sufficient strength to move about, few things are less difficult than their total annihilation. Entomologists ars familiar with the fact that grasshoppers deposit their eggs in a very limited space—seldom more than an area of two or thres acres. An expert has no difficulty in the proper season to discover the hatching bed, and ascertain when the young insect is likely to emerge from ths egg.

It is not many years since Russia was infested by the grasshopper plague, and its broad whsat lands devastated year after year, as completely as Utah has been devastated by them during late years. The Russian Governmsnt has enlisted science to aid it in carrying on the war of extermination against the grasshopper, and has succeeded so well that ths armies formerly hatched in the plains have totally disappeared and but few of those incubated on the great *steppes* of the Ural Mountains ever reach the valleys. The mode of warfare is as simple as it is effective, the insects being captured before lsaving the hatching grounds, by small boys with fly nets. Experienced entomologists are employed to ascertain the locality whers ths grasshoppers' eggs are deposited and the time when incubation will take place.

If by these simple means the grasshoppsr plague can be expelled from ths land, it would csrtainly seem desirable that the experimsnt should be tried. It would be a yearly saving of millions of dollars worth of produce, which is now devoured by this ravaging insect.—*Bulletin.*

CINCINNATI INDUSTRIAL EXPOSITION.—The Fourth Industrial Exposition at Cincinnati, will open on Ssptember 3d and continue nntil the 4th of October. It will bs held in a building especially erectsd in the heart of the city, pressnting an available exhibition space of 338,000 squars feet or nearly eight acres under roof, constituting the largest sxposition ever hsld in the United Statss. Parties who propose to exhibit articlss will be furnished upon application by mail to A. T. Goshorn, Prssident or W. W. Taylor, Secretary, with a pamphlet containing the premium list and full instructions to exhibitors. All applications for space must be made on or before the 20th of August, on the printed blank forms which will be furnished by the Secretary, and applicants after that date will not be alloted space until those entered by August 20th have been assigned. Space allotted to applicants and not occupied by them on or before August 20th, may be assigned to others.

A Boy being asked if he had ever fonght in the wrong, replied that he did once; he undertook to thrash a playmate and got hold of the *wrong* chap.

Raising and Moving Brick and Stone Buildings.

We presume that very few of the thousands of persons who daily stop to examins ths work now in progress for raising the brick building on California street, in this city, formerly occupied by Mooney's bank, are aware of the fact that the apparatus by which this work is done is a California invention; yct such is the fact, and a most valuable one. It was invented and patented in 1853, by Messre. Steen and Torquet, and built at the Vulcan Foundry. In December of ths same year it was employed, for the first time, in raising the brick building on the northwest corner of Montgomery and Commercial streets, then known as King's Banking Honse.

Since that time it has bsen employed in raising over 500 bnildings of various dimensions, in this city—more than two-thirds of which were brick or stone. The largest block of buildings ever raised by it was that on Montgomery street, known as the Brannan Buildings—125 by 175 feet in dimensions, and two stories high. These buildings were raised so as to admit of putting another story underneath. The loftiest building ever raised was the Amsrican Exchange, which was five stories high, and 60 by 80 feet on the gronnd. During ths time it was being raised over 300 persons were constantly lodged in the hotel.

The greatest slsvation to which any building has been raised will be rsached by the one npon which they are now at work, which will be raised 26 feet, admitting of one full story and a half story basement. Sseral buil dings have also been moved short distances from their original fonndations—one, the Prescott Honse, corner of Pacific and Kearny streets, 65 by 75 feet on the ground, was moved back, 32 feet. Some 20 or 25 buildings have been raised to a snfficient hight to admit a full story underneath; but most of the buildings, to which the invention has been applied, have been raised to conform to the changed grades of the street, etc.

Among all the buildings that have been raised not one has sustained even the slightest injury. This is attributable, in addition to the care exercised, to the perfect regularity of the movement,—so uniform that the most acurate regnlator could not show a second's difference in the final elevation of the most distant portion of the most extensive rangs of buildings to which the apparatus has been applied. There is not only a perfect nniformity of motion, but an entire absence of friction, so that there can be no jar as is always the case with the screw process.

The principle on which the machinery is worked is that of hydraulic pressure. The rams ars placed in connection with ths pressss, which stand at intsrvals of twelvs feet, beneath the walls of the building to be raised, all being connected by a continuous copper pipe of great strength, throngh which the water is forced into the pressss, which is again connected with a battery pump, worked by gearing in such a manner that the labor of four men will produce a power equal to ninety-five tons to each press. The number of presses may be indsfinitsly increased, the same labor sufficing for them, and serving to elevate ths most extended range of buildings, the only diffsrence being in the rate of speed at which the block is raised. Any slowness in this respect may be readily obviated by incrsasing ths number of pumps, and with them, of course, the amount of labor.

It will be readily undsrstood that the pressure of the water in the various presses raises the rams, and with them, gradually and simultaneously, the entire building. Nothing can be more uniform or steady in its action than the gradual raising of water to its proper level, and hence it is impossibls that any power can be brought to bear npon the slevation of foreign bodies, which shall raise them with less friction or eccentric motion than this.

This invention, which is now the property of the Mssrs. Stratton Brothsrs, is purely the rssult of California ingsnuity, and was never taken ont of this city until it had been smployed on something like 100 buildings. The original machinery, we believe, was shipped to Chicago, at which city it was first introduced outside of San Francisco.

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Wheat Market Quotations Compared.

1873.	S. F. Liverpool.			Dif. Bet.	
	AHIP-PING.	TELEGRAPH REPORTS*	MAIL RE-PORTS†	Mail & Tel	S. F. & Tel.
Mar 22....	1 80	2 79@2 83	.....	.....	1.01
" 24....	1 80	2 79@2 83	.....	.....	1.01
" 25....	1 80	2 79@2 83	2 83@2 91	6	1.01
" 26....	1 80	2 79@2 83	.....	.....	1.01
" 27....	1 80	2 79@2 83	.....	.....	1.01
" 28....	1 80	2 79@2 83	.....	.....	1.01
" 29....	1 80	2 77@2 81	2 81@2 89	5	99
" 31....	1 80	2 75@2 79	.....	.....	97
Apr. 1....	1 80	2 73@2 79	2 75@2 91	8	96
" 2....	1 80	- -@- -	.....	.....	96
" 3....	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	2 75@2 91	7	93½
" 5....	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 74@2 82	2 79@2 67	10¼	96½
" 9....	1 82½	2 74@2 82	.....	.....	96½
" 10....	1 80	2 74@2 82	.....	.....	99
" 11....	1 80	2 74@2 82	2 97@2 97	9	99
" 12....	1 80	2 74@2 82	.....	.....	99
" 14....	1 80	2 74@2 82	.....	.....	99
" 15....	1 80	2 74@2 82	2 83@2 95½	9	99
" 16....	1 80	2 74@2 82	.....	.....	99
" 17....	1 81¼	2 74@2 82	.....	.....	97¾
" 18....	1 82½	2 76@2 82	2 81@2 93½	8½	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 74@2 82	2 85@2 98	12½	96½
" 23....	1 82½	2 75@2 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	2 89@3 02	10½	1.02½
" 26....	1 82½	2 83@2 87	.....	.....	1.02½
" 28....	1 82½	2 83@2 87	.....	.....	1.02½
" 29....	1 82½	2 85@2 89	2 87@3 00	11	1.04½
" 30....	1 82½	2 85@2 89	.....	.....	1.04½
May 1....	1 82½	2 85@2 89	.....	.....	1.04½
" 2....	1 82½	2 85@2 89	2 85@2 98	8	1.04½
" 3....	1 82½	2 83@2 87	.....	.....	1.06½
" 5....	1 82½	2 83@2 87	.....	.....	1.05½
" 5....	1 91½	2 83@2 87	.....	.....	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 00	2 85@2 89	.....	.....	96
" 10....	1 90	2 91@- -	.....	.....	1.01
" 12....	1 90	2 91@- -	.....	.....	1.01
" 13....	1 90	- -@- -	.....	.....	.....
" 14....	1 90	2 93@2 97	.....	.....	1.05
" 15....	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	.....	.....	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.03½
" 19....	1 90	2 95@2 97	.....	.....	1.05
" 20....	1 90	2 93@2 87	.....	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.05
" 22....	1 90	2 93@2 87	.....	.....	1.08
" 23....	1 82½	2 91@2 95	.....	.....	1.10½
" 24....	1 82½	2 91@2 95	.....	.....	1.10½
" 19....	1 80	2 91@2 95	.....	.....	1.13
" 27....	1 80	2 91@2 95	.....	.....	1.13
" 28....	1 80	2 91@2 95	.....	.....	1.13
" 29....	1 83½	2 91@2 95	.....	.....	1.10½
" 30....	1 82½	2 95@2 97	.....	.....	1.14½
" 31....	1 82½	2 95@2 87	.....	.....	1.14½
Jun. 2....	1 82½	2 95@2 97	.....	.....	1.14½
" 3....	1 82½	2 95@2 97	.....	.....	1.14½
" 3....	1 82½	2 95@2 97	.....	.....	1.14½

*—The quotations given by talagrapb to tbe Associated Press are mainly tbose of wbat ara called by tba agent of tba Associatad Prass Averaga California Wheat. In a few instances Club are given.

†—Thesa ara quotations of California wheat in Liverpool, takan from tbe "Mark Lane Express."

‡—These differances are those between the mean prica of California wbaat in Livarpool aa announced by telegraph to the Associated Prass and as publisbad in tbe "Mark Lanc Express," In all cases the "Mark Lane Express" sbows higher prices than tba telagrapb.

S. F. Market Report.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

San Francisco, June 4, 1873.

The tone of the Produce market thia week has been good in some departments, as compared with the previous week; in others inferior. Wheat has again recuperated, there is more demand, and prices have gone up 2½ cents per cental. Potatoes are held less firmly, while Barley has gone down. For the past montb—nay for the past two mon bs—there has been a great influx of Dairy produce to this market, in fact quite a glut. Butter, Oheese and Eggs to almoat entire exclusion of Eastern goods, save in the matter of Eggs, wbich for about three weeks past, have again commenced to arrive pretty free ly in this market. Of course tbis will not improve tbe prices, especially when it is known that Oregon eggs have arrived in the various steamers from Portland, by the thonsand. The quantities of Butter and Cheese arriving during the season have been estimated in value at several millions of dollars. Pork raialng is an important industry which has been neglected by our farmers for two or three years past. Meats always command a good price in this market. The immense supplies arriving every season from the East ought to awaken our farmers to the importance of this matter.

Receipts.

Receipts of Bay Produce during the week just closed have in general been much larger than during the preceding one. No doubt farmers are making haste to get rid of what remaina of last season's cropa, etc., before sending in the new. Receipts of Flour have increased over fifty per cent.; thoae of Wheat nearly sixty pert cent.; thoae of Barley slightly; those of Potatoes onefourth; those of Bran have decreased one-third; those of Middlings have trebled and those of Beans quadrupled. Receipts of Wool have slightly declined; those ot Hides have more than doubled; those of Wine nearly the same; those of Onions and Hay reapectively have each declined one-half.

We summarize receipts of Bay Produce to date a s 16,333 quarter sacks of Flour; 69,408 centals of Wheat; 9,943 do of Barley; 40 do of Oats; 10 do of Corn; 11,383 do of Potatoes; 2,948 do of Bran; 790 do of Middlings; 1,267 do of Beans; 2,356 bales of Wool; 1,450 Hidea; 35 centals of Mustard Seed; 22,930 gallons of Wine; 680 do of Brandy; 881 centals of Onions and 940 do of Hay.

Receipts of Wheat at Oaklsnd Wharf have amounted to 7,400 centals or 37 car loads.

Receipts of Coast Produce have been very light as compared with the previous week. They have aggregated 189 centals of Wheat; 4,143 do of Barley; 2,292 do of Oats; 137 do of Corn; 892 do of Potatoes; 521 bales and 5 half-balcs of Wool; 233 Hidea, and 11 centals of Mustard Seed.

Barley.

Receipts this week have been large, aggregating 14,080 centals, but have fallen a little behind those of last week. The price has weakened 5 cents. The first instalment of new season's crop is expected next week. We note sales of 400 bags of Dark Coast, at $1.15; 1,450 do at $1.17½; 500 do good, at $1.20; 400 do Bay, at $1.25; 1,800 do light Bay, at $1.27½; 700 do Bay feed, at $1.30; and 700 do choice Bay Brewing, at $1.50, with 30 days and paid half in silver.

Flour.

Flour has remained quiet during the week. Receipts have been comparatively large. Exports have been merely nominal, consisting of 20 barrels, 240 half sacks, and 320 quarter sacks to Tahiti.

Hay.

Receipts have been much smaller than those of last week. We note sale of a small cargo of inferior at $10.50; a cargo of new Wheat, at $18; 175 bales of old, at $15; 225 tons of common new, at $12; 10 tons of common Cow, at $11.50; 10 tons of Wheat and old Oat, at $16.50; and 20 tons of Wheat, at $17.

Hops.

There is nothing of interest to report in Hops. Nominal quotations remain unchanged.

Oats.

Oats are dull. Sales consist chiefly of Oregon, with some Omaha and California. We note sales of 300 sacks of Omaha and California, at $1.80 to 1.90; 500 do at $1.85 to $2.00; 400 do Oregon, at $2.00; 300 do Oregon, at $2.00 to $2.10; and 500 do Oregon at private rates.

Potatoes.

Receipts are nearly all of new, and this week aggregated 12,275; almost the same as those of the previous week. We note sales of 300 sacks of Lakeville, at $1.37½; 100 do soft Tamales, at $1.25; and 100 do new at from $2.00 to $2.10.

Wheat.

Receipts this last week have aggregated 77,300 centals For 24 bours—up to 10 A.M., however, no Wheat was received at the City Front. This shows that we have well nigh arrived at the last sack. Wheat in Liverpool, according to tbe reports supplied the Associated Press and the Merchants' Exchange, has gone np 4 cents during the week—being given to-day at $2.95 to $2.99. This bas contributed to make the market stiffer. Freights are nominally from $17.05 to $18.87, but as there are now nearly 200 vessels on the way here capable of carrying an limmense quantity of wheat, they must he expected to rule ratber low. We note sales of 2,000 aacks of Inferior at $1.77½; 1.000 do at $1.80, exclusive of drayage; 12,100 do Shipping, at $1.82½; 8,500 do at $1.83½; 19,800 do at $1.85, and 2,000 do at private rates.

Wool.

The market has been quiet for the past week but sales have been larger than those of last week, including 670,000 lbs. by the principal houses. The Boston Jour. of Commerce, of May 24 reports aa follows:

The Wool market is admitted on all sides to be dull and lifeless this week, with nothing to distinguish ita character from that which preceded it. Manufacturers do not appear to be about in the market, as the inquiry is very limited, or they are bolding back for aales of their goods. Their stocks are generally amall, as they have only purchased for immediate wants, but as the new clip is expected to come in before long, they are waiting tbe market. The strike of woolen operatives in Rbode Island bas no effect upon the market, which is no more depressed during its continuance. There is no change to make in quotations * * * Botb supers and extras are scarce, and are taken up as fast as made. There is a fair demand for fine supers, but the poorer qualities are hard to sell at any price.

Foreign Wools exhibit no change, and prices are fairly firm. It is stated that there will he no more shipments of South American Wool from Montevidio at present, as commerce is stopped by the malignant fever at that port; but there is Wool enough here, and this can have no effect on prices.

GENERAL MERCHANDISE.

Baga are weak. Few being sold, and then only in small lots. Coal is weak; Cumberland in bulk has advanced $2.50 per ton during the week, as there is hardly any in the market. Case Gooda are in good demand, with atock running low. Dried Fruits are a little better in demand. Coffees are quiet, with a light demand. Spices are still advancing. Castor Oil at the mill in tbla city has been advanced 10 cents, as there is hardly any Eastern in the market. We give reduced rates of retail lumber this week. Tbis is not as low as could be fixed by the dealers, but it represents the prices at which lumber can really be had. Pine at cargo prices is now from $15 to $16. The market is very unsettled. Imports have been considerable this week including tha cargoa of the "Carrollton" "Gen. McClellan" "Confidence" and "Star of Brunswick," from New York, and that of the Quang Se from China. Exports have aggregated $154,793 carried in 7 ships of which 3 carrying 48,818 centala, worth $92,500 were Wheat ship.

FRUIT MARKET.

The supplies of fruits of all kinds are remarkably good. The new fruits come in abundantly. There are no California Oranges in the market, but abundance of Tahiti. Dried Fruits ara in good supply.

FRUIT MARKET.			
Tahati, Or. ₱ 1000	40	—	@45 —
Cal. do	—	—	@— —
Limas, ₱ M....	15	—	@20 —
Cal. Lemons, 1000.	50	—	@50 —
Bananas, ₱ bnch	3	—	@ 4 —
Pineapplas, ₱ dz	8	—	@ 9 —
Applas, eat'g, bx.	—	—	@ — —
Cherries.....	8	—	@ 15
Strawberries....	6	—	@ 9
Goosabarries....	7	—	@ 9
Raspberries.....	30	—	@ —
Currants.....	5	—	@ 8
Apricots.....	5	—	@ 8
Paars, Eating ...	—	—	@ — —
Pomegran's, ₱ 100	—	—	@ — —
Grapes, Mission.	—	—	@ — —
Rose of Peru..	—	—	@ — —
DRIED FRUIT.			
Applas. ₱ lb.....	8	@	9
Pears, ₱ lb.....	6	@	9
Peacbas, ₱ lb.....	10	@	12½
Apricots, ₱ lb.....	—	@	—
Plums, ₱ lb....	5	@	10
Pitted, do ₱ lb.....	15	@	20
Raisins, ₱ lb.....	8	@	12
Black Figs, ₱ lb....	20	@	15
White, do	15	@	20
VEGETABLES.			
Cabbage, ₱ dz.....	50	@	75
Garlic, ₱ lb.....	.—	@	—
Green Paas.....	2½	@	2¾
Green Corn ₱ doz..	15	@	25
Marrowfat Squash per ton.....	7 00	@	7 80
Artichokea, ₱ lb....	2	@	3
String Beans, ₱ lb ...	5	@	10
Lima Bcans.....	5	@	—
Pappars dry.....	20	@	25
Okra.....	30	@	35
Cucumbers, dz.....	75	@	1 0

LUMBER MARKET.

CARGO PRICES OF REDWOOD.			
Rough, ₱ M.....	$20	00	
Rough refuse, ₱ M.....	15	00	
Rough clear, ₱ M.....	32	50	
Rough olear refusa, M..	22	50	
Rustio, ₱ M.....	35	00	
Rustic, refuaa, ₱ M.....	24	00	
Surfaced, ₱ M.....	32	50	
Surfacad refusa, ₱ M...	22	50	
Flooring, ₱ M.....	30	00	
Flooring, refuse, ₱ M..	20	00	
Beaded flooring, ₱ M...	32	50	
Beaded floor, refnse, M.	22	50	
Half-inch Siding, M.....	22	50	
Half-inch siding, raf, M.	15	00	
Half-inch, Surfaced, M.	25	00	
Half-inch Surf. ref., M.	18	00	
Half-inch Battens, M...	22	50	
Pickets, rongh, ₱ M....	14	00	
Pickets, rough, p'ntd...	18	00	
Pickets, fancy, p'ntd....	22	50	
Shingles, ₱ M.....	3	00	

PUGET SOUND PINE —Retail Price.			
Rongh, ₱ M.	$20	00	
Flooring and Step, ₱ M	35	50	
Flooring, narrow, ₱ M..	37	00	
Flooring, 2d quality, M..	27	50	
Latbs, ₱ M.....	6	50	
Furring, ₱ lineal ft....		1c	
Rough, ₱ M.....	$25	00	
Rough rafuse, ₱ M.....	—	—	
REDWOOD—Retail.			
Rough Pickets, ₱ M....	18	00	
Rougb Pickets, p'd, M..	20	00	
Fancy Pickats, ₱ M.....	30	00	
Siding, ₱ M.....	27	50	
Tongued and Grooved, surfaced, ₱ M.....	40	00	
Do do refuse, ₱ M.....	27	50	
Half-inch surfaced, M..	40	00	
Rustio, ₱ M.....	42	50	
Battens, ₱ lineal foot...		1	
Shingles ₱ M.....	3	50	

San Francisco Retail Market Rates.

Wednesday Noon, June 4, 1873.

FRUITS, VEGETABLES, ETC.

The Markat is full of fresh fruits and vegetables, and the stalls, growing undar Cherries, Gooseberries, Currants, Strawberries, etc., present a splendid appearance. Green Peas, String Beans, atc., are in abundance. New Apples, Pears and Plums bave made their appearance. Prices have come down considarably.

Applas, pr lb....	—	@	12½	Celery, ₱ doz....	50	@	75
Paars, per lb.....	—	@	12½	Cucumbers, dz..	1 00	@	1 50
Apricots, lb.....	12½	@	25	Tomatoas, ₱ lb..	25	@	—
Pine Applas, aach	40	@	1 00	Green Paas.....	5	@	5
Bananas, ₱ doz..	75	@	—	String Beans....	10	@	15
Cantaleups.....	—	@	—	Cress, ₱ doz bun	20	@	—
Blackbarries....	12½	@	—	Driad Harbs, lb..	25	@	35
Cal. Walnnts. lb.	—	@	20	Garlic ₱ lb.....	—	@	10
Cranbarries, ₱ g	—	@	1 00	Graan Corn, doz.	25	@	35
Strawbarries, lb	15	@	20	Lattuce, ₱ doz..	20	@	35
Raspberries, lb..	40	@	—	Mushrooms, ₱ lb	5 0	@	—
Goosaberrias*...	10	@	15	Horseradish ₱ lb	—	@	25
Currants.....	10	@	12½	Okra, dried, lb	50	@	—
Cherrias, ₱ lb..	15	@	30	do frasb, ₱ lb.	75	@	1 00
Oranges, ₱ doz..	75	@	1 00	Pumpkins. ₱ lb..	2	@	3
Limas, per doz..	25	@	—	Parsnips, doz....	20	@	25
Figs, dried Cal.*	12½	@	25	Parsley.....	15	@	—
Figs, Smyrna, lb	25	@	35	Picklas, ₱ gal...	50	@	75
Asparagus, lb.*	12½	@	15	Radisbes, doz..	20	@	25
Articbokas, doz.	25	@	35	Summer Squash	4	@	5
Beats, ₱ doz.....	20	@	—	Marrowfat, do.	2	@	3
Potatoes, New ₱ lb	3	@	5	Hubbard, do..	2	@	3
Potatoas, sweet,*	3	@	5	Dry Lima, shl...	—	@	10
Broocoli, ₱ po..	10	@	15	Spinaga, ₱ bskt.	25	@	50
Cauliflower, ₱ ..	10	@	15	Salsify, ₱ bnnoh	—	@	—
Cabbage, ₱ doz..	75	@	1 00	Turnips, ₱ doz..	20	@	25
Carrots, ₱ doz...	20	@	25	Rhubarb.....	6	@	8

POULTRY, GAME, FISH, MEATS, ETC

Poultry is plenty; Game scarce: Hare and Rabbit have advanced. Fisb are more plantiful than usual. There is a good supply of Tomcod, Salmon, Percb, Soles, and Large Smelts in tbe market. Salmon is naarly out of the market. Tomcod and Large Smelts are reduced in price.

Chickens, apiece	75	@	1 —	Flonnder, ₱ lb...	18	@	20 —
Turkays, ₱ lb..	25	@	— —	Salmon, ₱ lb....	8	@	10
Mal&Canv Bk, pr.	—	@	—	Smoked, naw,*	12½	@	—
Tame, do.....	1 50	@	2 50	Picklad, ₱ lb..	5	@	5
Teal, ₱ doz....	—	@	—	Salmon bellies	—	@	5
Geese, wild, pair.	—	@	—	Rock Cod, ₱ lb..	—	@	12½
Tame, ₱ pair..	3 50	@	4 —	Cod Fisb, dry, lb	12½	@	—
Snipe, ₱ doz....	—	@	—	Parcb, s water, lb	10	@	—
Pigaons, dom. do	—	@	9 00	Frash watar, lb	—	@	—
Wild, do.....	—	@	50	Laka Big. Trout*	25	@	30
Hares, each	40	@	50	Smalts, large ₱ lb	8	@	8
Rabbits, tamat.	50	@	75	Harring, Sm'kd.	75	@	—
Wild, do, ₱ dz.	2	@	—	Tomcod, ₱ lb....	10	@	12½
Baef, tend, ₱ lb.	20	@	—	Terrapin, ₱ doz.	3 00	@	—
Corned, ₱ lb..	—	@	12½	Mackeral, p'k, aa	12½	@	—
Smoked, ₱ lb..	15	@	—	Fraah, do lb...	—	@	—
Pork, rib, etc., lb	—	@	15	Saa Bass, ₱ lb...	—	@	—
Chops, do, ₱ lb	15	@	—	Halibut.....	—	@	—
Veal, ₱ lb. ...	—	@	20	Stnrgaon, ₱ lb..	4	@	5
Cutlat, do.....	—	@	20	Oystars, ₱ 100...	1 00	@	—
Mutton—chops,*	—	@	15	Chasp. ₱ doz..	75	@	—
Leg, ₱ lb.....	12½	@	—	Turbot.....	50	@	—
Lamb, ₱ lb.....	20	@	—	Crabs ₱ doz....	1 00	@	—
Tongnas, baef, ..	75	@	1 00	Soft Shall.....	37½	@	—
Tongues, pig, lb	10	@	—	Shrimps.....	10	@	—
Bacon, Cal., ₱ lb	15	@	18	Sardines.....	8	@	40
Hams, Cal, ₱ lb..	15	@	18	Soles.....	—	@	25
Hams, Crosa' s c	—	@	20	Salmon Trout...	75	@	1 50
Choice D'fiald	20	@	—	Young Salmon..	50	@	75
Whittaker's..	18	@	20				

MISCELLANEOUS.

Corrected weekly by B. Sbarboro & Bro., Grocers, No. 531 Washington streat, San Francisco.

Butter, Cal. pr lb	25	@	32	Syrnp, S F. Gol'n.	60	@	65
Cbeeae, Cal.. lb..	15	@	20	Driad Applas....	10	@	12½
Lard. Cal., lb....	12½	@	15	Dr'd Ger. Prunes	10	@	12½
Flour, ex. fam. bl	5 75	@	6 00	Dr'd Figs, Cal...	9	@	10
Corn Meal, lb..	2½	@	3	Dr'd Peacbes....	8	@	10
Sugar, wh. orsh'd	11½	@	12	Oila, Karosane ..	45	@	50
do lt. brown, lb	10	@	11	Eggs.....	30	@	—
Ooffae, Sbarboro's family gr'nd, lb			27½	Winas. Old Port	3 50	@	5 00
Coffea, green, lb..	18	@	22	do Fr. Claret..	1 00	@	1 25
Tea, fine blk, 50, 65, 75	@	1	00	do Cal. dz. bot.	3 00	@	4 50
Tea, finst Jap, 55, 75, 90	@	1	00	Whisky, O.B, gal.	2 50	@	5 00
Candles, Ad mant'e	17	@	25	Fr. Brandy	4 00	@	10 00
Soap, Cal., lb....		@	10	Rioe, lb.....	10	@	12½
Can'd Oysters, dz.	2 50	@	3 75	Yeast Powders, dz.	1 50	@	2 00

——* Per lb, †Per dozen. ¶ Per gallon.

Leather Market Report.

[Reported for the Press by Dollilver & Bro.]

San Francisco, Wednesday, June 4, 1873.

Tha demand for Domestic Skins and Sole Laatber continues light at old prices. The same may be said in refarence to French Skins, except that they have an upward tendenoy.

City Tanned Laather, ₱ lb			26@29
Santa Cruz Laatber, ₱ lb			26@29
Country Leatbar, ₱ lb			25@28
Stockton Laathar, ₱ lb			26@29
Jodot, 8 Kil., per doz	$50	00@	54 00
Jodot, 11 to 19 Kil., per doz	66	00@	85 00
Jodot, sacond choice, 11 to 16 Kil. ₱ doz	55	00@	70 00
Levin, 12 and 13 Kil., per doz	68	00@	70 00
Cornellian, 12 to 16 Ko	57	00@	67 00
Cornellian Femalas, 12 to 13	60	00@	64 00
Cornellian Females, 14 to 16 Kil	66	00@	72 00
Beaumcrvilla, 15 Kil	60	00@	— —
Ogaran Calf, ₱ doz	54	00@	— —
Simon, 18 Kil., ₱ doz	60	00@	62 00
Simon, 20 Kil. ₱ doz	65	00@	67 00
Simon. 24 Kil. ₱ doz	72	00@	74 00
Robart Calf, 7 and 9 Kil	35	00@	40 00
Francb Kips, ₱ lb	1	00@	1 30
California Kip, ₱ doz	50	00 to	60 00
Frencb Sbeep, all colors, ₱ doz	8	00@	15 00
Eastern Calf for Backs ₱ lb	1	10@	1 25
Sbaep Roans for Topping, all colors, ₱ doz	9	00@	13 00
Shaap Roans for Linings, ₱ doz	5	50@	10 50
California Russatt Shaap Linings	1	75@	5 50
Baat Jodot Calf Boot Legs, ₱ pair	5	25@	— —
Good Frencb Calf Boot Lags, ₱ pair	4	50@	5 00
Francb Calf Boot Lags, ₱ pair	4	00@	— —
Harnass Leatbar, ₱ lb		30@	37½
Fair Bridla Laatbar, ₱ doz	48	00@	72 00
Skirting Leatber, ₱ lb		34@	37½
Welt Laatber, ₱ doz	30	00@	50 00
Buff Laatbar, ₱ foot		21@	25
Wax Sida Leather, ₱ foot		17@	19
Eastern Wax Leather		26	

San Francisco Metal Market.

Wednesday, June 4, 1873.

Iron.—			
Scotcb Pig Iron, ₱ ton	$52	00 @	55 00
White Pig, ₱ ton	52	00 @	55 00
Rafinad Bar, bad assortmant, ₱ lb	—	— @	— 06
Refined Bar, good assortment, ₱ lb	—	— @	— 06½
Boiler, No. 1 to 4	—	05½@	— 06
Plate, No. 5 to 9	—	06½@	— 07
Sbeet, No. 10 to 13	—	07½@	— 08
Sheet, No. 14 to 20	—	08 @	— 08½
Sbaat, No. 24 to 27	—	08 @	— 09
Horse Sboes, par kog	9	00 @	
Nail Rod		11 @	
Norway Iron		9	
Rolled Iron		6½	
Otber Irons for Blacksmitbs, Minars, etc.		6½@	9½
Copper.—			
Braziars	—	35 @	— 38
Copper Tin'd	—	50 @	— —
O. Nial's Pat	—	55 @	— —
Sheathing, ₱ lb	—	— @	— 29
Sbaathing, Yallow	—	28 @	— 29
Sbeathing, Old Yellow	—	— @	— 12½
Composition Nails	—	29	— 30
Composition Bolts	—	29	— 30
Tin Plates.—			
Plates, Cbarcoal, IX ₱ box	14	50 @	15 —
Plates, I C Cbarcoal	13	50	14 —
Roofing Plates	13	00	13 50
Banca Tin, Slabs, ₱ lb	—	40	— 42½
Steel.—Englisb Cast, ₱ lb	—	20	— 25
Drill		20	— —
Flat Bar		22	— —
Plough Points		16	— 17
Russia (for mould boards)		17	18
Zinc		9¼	10
Zinc, Sbeet	—	9	— 10
Nails—Assorted sizes	—	5½@	— 9

GENERAL MERCHANDISE.

BAGS.			
Eng, stand. Wb't	14½	@	15
Flour Sacks ½s..	13½	@	16
" ¼s.	8½	@	9½
Stand. Gunnias..	17	@	18
" Wool Sacks.	50	@	62
" Barlay do...	16½	@	—
Hessian 45-in. gda	12	@	—
do 60	17	@	—
Burlaps, yard....	10½	@	10¾
CANNED GOODS.			
Asst'd Pia Fruits in 2½ lb cans.	3 00	@	—
do Tabla do...	3 75	@	4 —
Jams & Jellies	4	— @	—
Pickles ½ gl..	3 25	@	3 50
COAL—Jobbing.			
Australian, ₱ ton	13	— @	14 —
Coose & Bal. Bay.	8	50 @	—
Seattla.....	11	00 @	—
Cumbarl'd, cks.	25	00 @	—
do bulk....	—	— @	25 —
Lebigh.....	20	00 @	—
Livarpool.....	11	00 @	12 —
Weat Hartley....	14	00 @	15 —
Scotcb.....	12	00 @	14 —
Scranton	15	00 @	—
Vancouvar's Isl..	12	00 @	14 —
Cbarcoal, ₱ sk....	75	@	—
COFFEE.			
Costa Rica per lb	20	@	—
Guatamala.....	20	@	—
Java.....	—	@	23
Manilla.....	19	@	—
Ground in cs....	27½	@	—
Cbicory.....	8	@	—
FISH.			
Pac. Dry Cod, new	—	@	—
cases.....	8	@	9
Eastarn Cod.....	8¼	@	9
Salmon in bbls.	8	00 @	—
do ½ bbls	4	50 @	5 00
do 2½ lb cans	—	@	—
do 2 lb cans..	—	@	2 50
do 1 lb cans .	—	@	2 —
Pick. Cod. bbls..	—	@	—
do ½ bbls.	—	@	—
Veal.....	5	@	7
Mutton	5½	@	6
Pork, undressad.	7½	@	7¾
do, dressed....	10	@	11½
GRAIN, ETC.			
Wh't Cal. o'at. cl.	1 70	@	1 80
do, sbipoing ..	1 80	@	1 85
do, milling.....	1 85	@	1 90
do, Oregon.....	1 80	@	1 85
Barlay, Dark O'stl	15	@	1 20
do, Light.....	1 20	@	1 22½
do, Brawing...	1 30	@	1 35
Oats, Coast.....	1 80	@	1 90
do, Light.....	2 00	@	2 12½
do Omaha.....	—	@	—

PAINTS.			
Atlan. W. Lead.	11½	@	12
Whitaning.....	—	@	2
Cbalk.....	—	@	1
Paria White.....	—	@	3
Ochra.....	—	@	3
Venetian Red...	—	@	3
Red Laad.....	—	@	11
Litbarge.....	—	@	11
RICE.			
China No. 1, ₱ lb	7½	@	—
do 2, do.	7	@	7½
Japan.....	7	@	8
Patna.....	7	@	7½
Hawaiian.....	8	@	9
SALT.			
Cal. Bay, par ton.	5 00	@	15 —
Carman Island..	14	00 @	30 —
Liverpool fine...	25	00 @	26 —
do coarse	19	00 @	20 —
SOAP.			
Castile ₱ lb....	9½	@	11
Local brands....	5½	@	7
SPICES.			
Allspice, per lb..	15½	@	16
Clovas.....	33	@	35
Oassia.....	30	@	—
Nutmag.....	1 00	@	—
Whole Papper...	—	@	27½
Ground Allspica	25	@	30
do Cassia..	45	@	50
do Clovas..	30	@

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA
Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

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MATTESON & WILLIAMSON'S

American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

THE BAIN WAGONS.

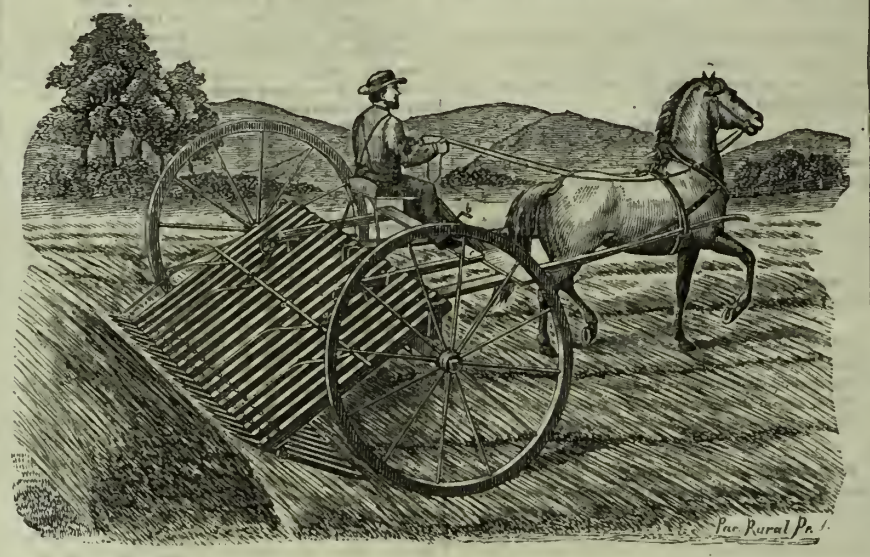


These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.
We are now receiving a full stock of
Farm Wagons, Freight Wagons, and Header Wagons.
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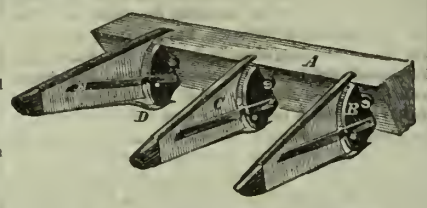
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PATENT EXTENSION TOOTHED HAY RAKE.



Saves more and better Hay than any other Rake in use, being free from dirt and dust. Holds twice the amount, as the teeth can be used any length. Runs light and is easily handled.

FIRST PREMIUM AT STATE FAIR, SACRAMENTO.

Manufactures also the old Stationary
Wood-Toothed Rake,
(Improved,) which I sell cheaper than any other Wheel Rake. Also my
Patent Adjustable Grain Lifter,
For Header, which can be run at any inclination, as seen at D in cut; can be attached to Header in 15 minutes; is the cheapest in use and gives the best satisfaction.



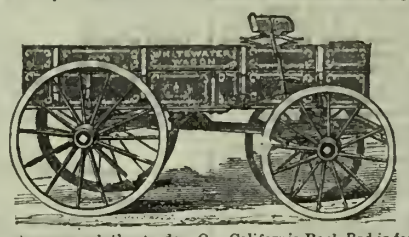
Parties can save additional the cost of a set in one day's cutting. Make to order also, HEADER APRONS and GRAIN BELTS of all kinds. All orders or enquiries to

O. BONNEY, Jr., 221 Mission Street, San Francisco,
Promptly attended to. 12v5-1am

THE WHITEWATER WAGON.

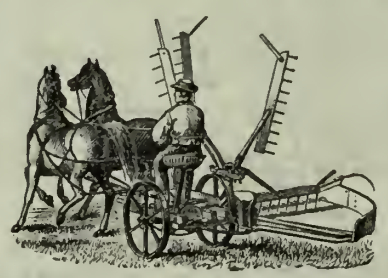
PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



For the Harvest of 1873.

The Leading Machines.



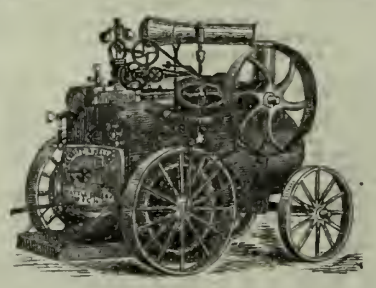
BUCKEYE MOWER,
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BUCKEYE SELF-RAKE REAPERS,
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VIBRATOR SEPARATOR
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TAYLOR'S SULKY HORSE RAKES,

With a full stock of Agricultural Implements and Hardware.

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43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.
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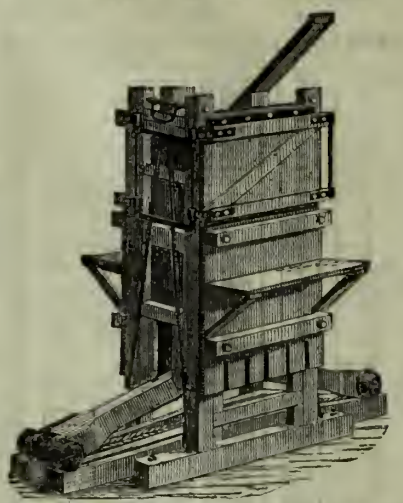


And also a superior Iron Axle Wagon.
MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.
John Deer Moline Plow.
Also COLLINS' PLOW (Smith's Patent).
THE GORHAM BROADCAST SEEDER AND CULTIVATOR.
EXCELSIOR MOWER AND REAPER.
The "EXCELSIOR" MACHINE took the first premium at our State Fair.
We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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Working Class, MALE OR FEMALE, $60 week guaranteed. Respectable employment at home, day or evening; no capital required; full instructions and valuable package of goods sent free by mail. Address with 6 cent return stamp, M. YOUNG & CO., 173 Greenwich st., N. Y.

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable **EAGLE HAY PRESS,** the invention of J. A. Mcgillivral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of beating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 550 pounds. Reference, Maj. Roh't Beck.

We have added to this Press this season an improvement (patented) which does the stamping, dispensing with men to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

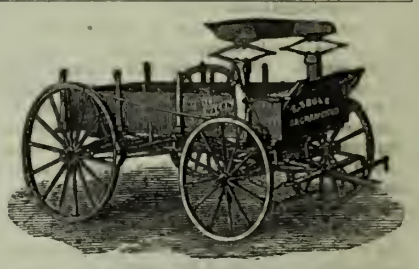
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12v5-2am3m-2ts

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HAS A DOUBLE MOTION,
Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

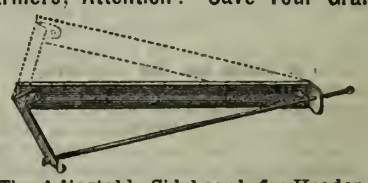
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Sole Agents Pacific States San Francisco.
Old Stand, Market, head of Front Street. f22-3m



FIRST PREMIUM AWARDED at the State Fair of 1871; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
ap22-3m San Quentin, Cal.

Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.

Orders solicited. Address WM. S. MURPHY,
N. E. cor. Drumm and California sts., S. F.
JAS. T. ISH, Proprietor. 13v5eow tf

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Office, 315 California street, SAN FRANCISCO.

SEVERANCE & PEET,

Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

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KILLIP & CO.,

Stock and General Auctioneers,

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GREAT SALE OF

Hambletonian Trotting Horses

—AND—

THOROUGHBRED

DURHAM CATTLE

—AND—

THEIR GRADES,

—AT THE—

Hambletonian and Durham Stock Farm

—OF—

S. B. WHIPPLE,

SAN MATEO.

The nndersigned will sell at public auction, at his farm at San Mateo, San Mateo County, California,

WEDNESDAY, JUNE 11th, 1873,

Commencing at 10 A. M., and continuing from day to day until sold, all his fine TROTTING HORSES, being about ninety head, old and young, and embracing the celebrated Stallions, WHIPPLE'S HAMBLETONIAN, SPECULATION, HAMBLETONIAN, JR., AJAX, TRIBULATION, and SPECULATION, JR., and the celebrated Mares, HARVEST QUEEN, STAR QUEEN and ASHCAT. Also about fifty head of Full Blood Durham Cattle, embracing ten Bulls, twenty Cows and Twenty Heifers, all being of the finest milch stock of Durhams. Also about thirty high grade Cows and Heifers.

The horses are all well bred. The brood mares are of the best selection for breeding trotters. The stallions are of superior Hambletonian stock. The colts—yearlings, two, three, four, five and six years old, are all bred from the above celebrated Hambletonian stallion. Among them are several handsomely matched Double Teams. It is not presumption to say that there never was such an offer of horses thrown upon the market. It will be the great chance for horsemen to purchase fine and fast stock.

The cattle have all been bred by the undersigned. They are high milkers, and are bred deep in the celebrated milking strains.

The terms of sale will be—all sums under Five hundred dollars, Cash, in United States Gold Coin; exceeding that amount, half cash; remainder, sixty days at one per cent. per month, with approved city acceptances.

Catalogues are being prepared, giving full description and pedigrees of Stock to be sold (Horses and Cattle). They will be forwarded to parties desiring them, upon application to the following parties:

G. N. SWEEZY, Marysville; GEORGE EVANS, Whipple's Farm, San Mateo; S. B. WHIPPLE, 315 Mission street, San Francisco; or

KILLIP & CO.,

STOCK AUCTIONEERS.

209 Snttter street, San Francisco. m15-tf

Jersey Cattle.

I have now for sale, and will be in regular receipt of,

Imported and Thoroughbred Jersey Cattle,

WITH AUTHENTIC PEDIGREES.

Their repntation for Butter stands unequalled.

R. G. SNEATH,

15v5-2m Menlo Park, Cal.



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

TO DAIRYMEN, OWNERS OF HORSES, AND STOCK DEALERS

We are now selling large quantities of Flax Seed Oil Cake Meal, and we call your attention to its value as an article of feed for Milch Cows, Beef Cattle, Horses, Mules and Sheep. Its effect on Milch Cows is to greatly increase the yield and richness of milk, making it invaluable for Dairymen.

For Beef Cattle it has fattening properties which cannot be found in any other feed; the beef always being more tender and juicy when this feed is used, and no feed known will so quickly prepare animals for market as Oil Cake Meal.

By those who have used it thoroughly one pound is pronounced to be equal to two pounds of corn meal or three pounds of bran, and in the United States Government report of the Department of Agriculture for 1865, it stands in the following relation to other feeds as to the percentage of flesh produced from a hundred pounds of feed, viz: Indian Corn Meal, 11 per cent.; Barley Meal, 13 per cent.; Oat Meal, 18 per cent.; Oil Cake Meal, 22 2-100 per cent.; and the report further says that if the "Farmers would note the differences in value of these feeds, it would be of immense benefit to them and save them thousands of dollars.

For Sheep, there is no article of feed known, that produces such fine mutton or so promotes the growth of wool.

It is particularly valuable for Cows at the time and after calving. A suitable quantity for Milch Cows at the commencement is one quart (or less) in the morning and same at night, either alone or mixed with other feed, generally mixed with the mash of bran, slops, roots, or cut feed. The quantity can be increased gradually according to the effect produced—ordinarily not exceeding three or four quarts per day.

No description of feed so greatly promotes the health of animals as Oil Cake Meal, and we urgently request all engaged in the dairy business, raising and fattening stock, wool growing and owners of draught or carriage horses, to give it a trial, feeling confident that they will find it of very great value.

England alone consumes annually three hundred and ninety million pounds of this Meal. At present price it is the cheapest feed in market.

The Meal can be had of the HAY AND GRAIN DEALERS of the city, and all orders will receive prompt attention.

☞ Purs raw and boiled Linseed and Castor Oil constantly on hand; also, a very superior article of Metalic Paint—the best and cheapest in market. Address

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SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

N. GILMORE,

Importer and Breeder of

Angora or Cashmere

GOATS

—OF—

PURE BLOOD

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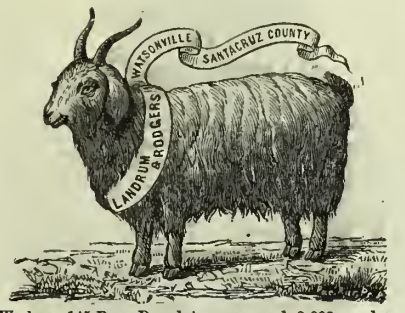
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For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

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El Dorado, El Dorado county,

5v3-eow-tf California.



We have 145 Pure Breed Angoras and 2,000 grades of 12 years' breeding to select from. Those wanting Bucks will find it to their interest to send for pamphlet on Breeding, and to examine our stock of Angora Goats and Cotswold Sheep. LANDRUM & RODGERS,

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THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down

SHEEP.

—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,

19v4-tf Hollister, Monterey County, Cal.

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WOOL COMMISSION MERCHANTS,

625 Sansome street, corner Jackson, SAN FRANCISCO.

Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.

10v3-3m

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A Fine Thoroughbred Berkshire Boar, Two years old, FOR SALE VERY LOW by R. S. **THOMPSON,** Importer and Breeder of Improved Berkshire Swine, Napa, Cal. 20v5-2m

40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spont Spring, Appomattox County, Va. 10v4-1y

The Trotting Stallion NAUBUC,

BLACK, 15 HANDS 3 INCHES, and weighs 1060. Sired by Toronto Chief, and out of the famous ten-mile trotting mare Gipsy Queen. Toronto Chief was the first horse that trotted a half mile in a race in 1.8½; he beat Commodore Vanderbilt in three straight heats in 2.25½, 2.25¾, 2.24¼. George Bidwell, who owned, trained and drove Gipsy Queen, claimed that she was by Wagner, out of a mare by Glencoe, and in her last ten mile race with Capt. McGowan was beaten less than a length in 28.11. Naubuc's sire, dam and full brother, Thomas Jefferson, with a record of 2.25½, all being famous on the turf and in the stud, entitles this horse to favor among the breeders of this State. He will make the season at the Naubuc Farm, San Lorenzo. Alameda county, commencing March 1st and ending July 1st.

Terms, $50 for the season. For particulars send for circulars to DR. B. J. SMITH,

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Farmers, Teamsters and Livery Men,

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For sale everywhere. 12v5-3m

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Our business being exclusively Commission, we have no interest that will conflict with those of the producer.

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Which they offer to the trade at reduced prices; also the celebrated **Obermann Self-Fastening Bed Spring.**



Any man can make his own Spring Bed with them by attaching them to the slats of any bedstead.

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San Francisco Wire Works, 665 Mission St., S. F. C. H. Gruenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

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Fred. C. Warner & Co., General Commission Merchants, No. 21 Metropolitan Market, San Francisco. Hams, Bacon, Butter, Eggs, Cheese, etc., sold on Commission.

A. Lusk & Co., Wholesale Commission Dealers in California and Oregon Fruits, Oranges, Lemons, and all kinds of Canned and Dried Fruits, etc. Pacific Fruit Market, Clay st., below Montgomery, S. F.

Saul & Co., 579 Market Street, San Francisco. Manufacturers of Carriages, Wagons and Stage Work, of the most improved and practical styles.

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On Sing, Chinese Intelligence Office, 624 Jackson street, between Kearny and Dupont, San Francisco. Particular attention paid to orders for all kinds of Servants, Cooks, Waiters, Laboring Men, etc.

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11,000 Sold in the Past Four Years.

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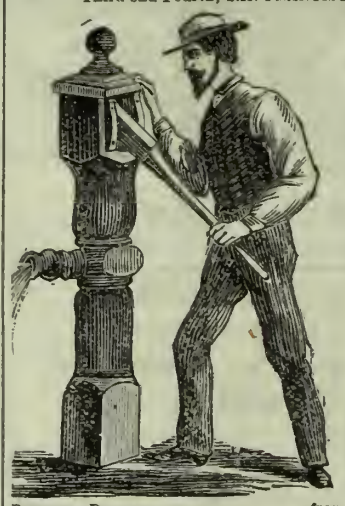
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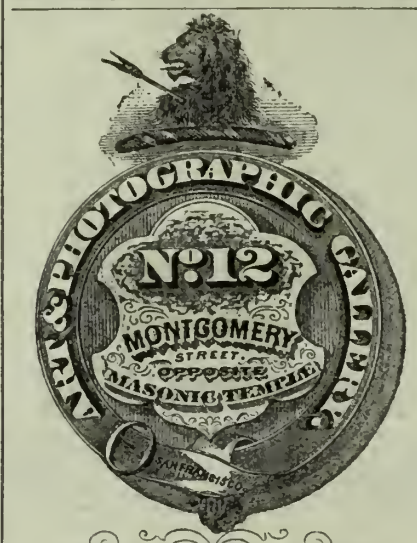
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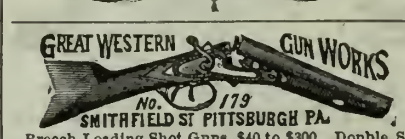
The subscription books of this Association will be open on the 24th of this month (May, 1873), at the present office of the Association, No. 10, Temple Block, Los Angeles, California, where copies of the By-Laws and Articles of Incorporation can be had.

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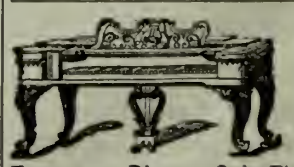
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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JUNE 14, 1873. [Number 24.

What we Need—Population.

From all parts of the State goes up the wail of hard times, no money, and no business, people are at their wits end to know in what channel to turn their activity, and finding none swear that the country is going to the dogs. Many are so despairing as to predict universal ruin and bankruptcy. When you ask a merchant as to how business is getting on, he smiles a grim smile and seems to wonder at your verdancy. "Business, why my dear sir, there is no such thing as business, and we don't know when there is going to be any." Some attribute the cause of general dullness of things to Chinese immigration and some to our currency system. Straightway the Chinese must be exterminated and the country flooded with greenbacks. Others think with the "*Bulletin*" that matters are only settling down after the excitement of two or three years past. No doubt there is a great deal of truth in all the causes thus and previously assigned, but if the truth be told, the State wants population Strong men to develop its agricultural, lumber and mineral resources. White men that will support a commerce and manufactures carried on by white men. We must invite to our shores the surplus population of Europe and the East. With this population will come the business prosperity that our merchants so much need. What would now be the state of the Union if it had not been the recipient of a strong and life giving current of immigration for the last hundred years. Its population would have been about equal to that of Mexico, and its commercial, manufacturing, social and political status not very dissimilar. The Mississippi Valley with its great States and populous cities and hives of industry, would be a romantic waste, the home and heritage of Indian nations, united action on whose part would, in war, be almost equal to crushing out the thin veneer of civilization that would exist along the Atlantic shores. The Pacific Coast would still be a barren and unproductive region and a dependency of the Republic of Mexico. See how immigration goes on in N. Y. A week ago seventeen thousand immigrants landed in that port. That is, taking it as an average, a yearly immigration of 884,000, or one of 8,840,000 in a decade. Something of this kind we want. We want people to till our uncultured fields, hew down our forests, and develop our as yet embryo mineral resources. We need the labor—the poverty stricken masses of Europe need the employment. How are we to bring both together? That is the problem to be solved, and to the solution of which our business men should direct themselves. The East does not need to attract immigration to its shores, because it is easily accessible by the poorest, a week sufficing in which to make the passage, and it being obtainable for from $15 to $17. It will take a hundred dollars to bring an immigrant to California, and he will be six or seven weeks on the way. What we need to do is to assist the masses of Europe to reach our State. And this can only be done by allotting funds for that purpose, either by the State or by individuals. Many object to the former, but none can possibly object to the latter. We believe that an Association composed of all the commercial men in the State should be formed for the purpose of promoting immigration, with a nominal capital of from ten to twenty million dollars, only a percentage of which should need to be paid up. Ten million dollars would pay the passage of one hundred and thirty-three thousand immigrants by the sailing vessels that leave Liverpool annually for our port to load wheat. Each immigrant would cost about $75, which he should be required to enter into a bond to pay within one year after his arrival. There would be nothing lost by the operation, but hundreds of millions of dollors would be added to the wealth of the State by the labor of those thus introduced. Scores of thousands of small farmers in Great Britain and Ireland would only too gladly avail themselves of the privilege thus afforded them of making homes for themselves in the Golden State. Then we need not be afraid of buying too much abroad, of making excessive importations. The paid up capital of such a company need not be more than two million of dollars, comparatively nothing to our merchants and capitalists. The Chinese act in this way and prosper, why not also we?

Native Fruits.

In continuing our descriptions of the native fruits, grains and vegetables of America, we herewith illustrate by engravings the Northwestern Crab Apple *Pyrus coronaria* and the Gooseberry, *Ribes hirtellum*. Probably there is no native fruit of the American Continent, that in some of its forms or varieties, is so widely disseminated as the crab apple. It is found in the mountain valleys of Southern Mexico and fruits to perfection in Alaska, while it is common in Maine, Canada and all the Western States. Perhaps the smallest of its varieties is found in Alaska, the full size of which is shown in Fig. 1 of our engravings.

Except for the making of tarts and jellies the fruit is of but little value, and is grown more for its ornamental effect than for any other use. It is beautiful when in full flower, and its fruit which is produced in the greatest abundance, and assumes many colors in ripening, from green to yellow and bright red, and hanging to the tree until late autumn, renders it highly ornamental.

Of the gooseberry as illustrated in Fig. 2, it need only be said, that it is common in all North America, and is used by the Indians of Colorada, Utah, Arizona, Texas, California, Oregon and Alaska as an article of food, green, ripe and dried. This fruit like the crab apple, is seldom grown except as a curiosity, being greatly inferior to any of the cultivated and improved varieties.

Fig 1

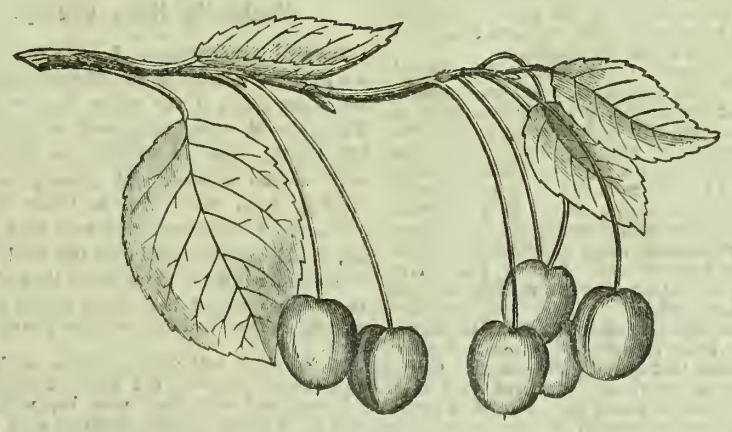


Fig 2



WILD FRUITS.

Our Butter and Cheese Interests.

There are very few branches of business which have been entirely exempt from the disastrous effects produced by the unsettled state of our financial affairs and the general depression consequent thereupon. The Butter and Cheese trade is however one of the few exceptions to the general rule, and has, throughout the vicissitudes attending its sister trades, been noted for its firmness and buoyancy. Not only has it experienced the most lucrative and successful year since the war, but has also passed that year (as far as San Francisco is concerned) without the single failure or suspension of any regular dealer or consignee. This acknowledgment is of itself due to the trade on account of its being second only to our grain interests in a commercial standpoint, but is also cheerfully made by us on account of the contemptuous indifference with which it has been treated both by our banking and business community. Owing to the churlish conduct of the banks in witholding from it, the accommodations they so willingly rendered to other trades, dealers have been compelled to work strictly on a cash basis, purchasing in the country for money, the goods they gave 30 to 60 days credit on in the city. Merchants have in consequence been compelled to restrict their operations to their own capital, and the fact that they have in doing this not only weathered the storm successfully, but held their own through these troubles, with the result above stated, speaks volumes for its soundness and stability. Members of the trade themselves will be surprised when we state that the value of receipts of Butter for the past year in San Francisco, amounts to $4,000,000 and of Cheese to over $3,000,000; thus proving our previous assertion that to only one branch of our trade is the Butter and Cheese interest second.

Ringing the Vine.

A Placer correspondent, under date of June 7th, makes the following inquiry: "Can you give me the *modus operandi* of a practice known to horticulturists by the term "ringing"? If I mistake not, its effect is to greatly increase the size of the fruit. It has occurred to me that possibly I might produce a few splendid specimens of fruits for the next State Fair, which if not entitled to premium might at least increase the interest of the grand exhibit. Please state the manner of doing it, and as to whether it is injurious to the vines operated upon; also the time when it should be done."

The practice consists in the removal of a narrow ring or circle of bark from such vine or branch as it is proposed to effect by the operation. A clean cut is made surrounding the limb below the fruit, quite through the bark, and another at a proper distance from the first, say from a quarter to a half an inch apart; the intervening ring or bark is then entirely removed; even the soft and fine liber or inner bark, adhering closely to the sap wood, should be carefully scraped off in case the bark does not peel freely from it; the object being to arrest the return flow of sap which takes place between the bark and the wood, and which by its concentration above or beyond the cut, has the effect to hasten the maturity and enlarge the size of the fruit upon the limb or vine so operated upon.

The process however is not without its objectionable features. Where the girdled space is so wide, upon apple, peach or plum trees, that the gap is not filled by newly formed wood and bark—which nature always tries to effect—before the end of the current growing season, the limb generally dies.

Grape vines trained upon the renewal system, in which the bearing shoots of the present year are entirely removed to give place to new bearing wood the following year, can be girdled and made to produce greatly enlarged fruit with very little or no detriment to the vine or its roots. To the amateur, desirous of producing extraordinary specimens, ringing or girdling becomes an available process, and properly conducted, ranks among the most interesting of horticultural experiments.

As to the time when the operation should be performed, we would say, that we have tried all seasons, from the time of spring blooming to the end of the fruiting season, and upon almost every description of fruit tree, and we have found that, as a general rule, if you know about the full size which the particular variety of fruit usually attains, let the ringing be done when it shall have grown to one-half its full size.

Some practice an early decortication, believing that soon after the fruit has set, is the best time. The effect upon the size and early maturity of the fruit is apparent, done at whatever season; but the most striking results have always been shown under our management, when it was deferred till the fruit had attained from one-third to one-half its ordinary full growth.

CORRESPONDENCE.

Importance of Thorough Preparation of the Soil Before Seeding.

EDITORS RURAL PRESS:—With the great mass of the people, who compose what are called the *Farmers of California*, I am quite certain it is entirely useless to argue. After each of their customary failures they will most emphatically promise amendmout for the futuro, but when sced time comes again, the hope returns, that this will be ono of tho exceptional good seasons, when the merest scratching will ensure a good crop. Anythiug like good thorough work is so utterly repugnant to these shiftless souls, that although they know what should be done they invariably fail to do it. These scarifiers are incorrigible, and I do not propose to waste any further time on them.

My object is to warn those, who from want of experienoe, aro likely to fall into tho errors of these men, and to prevent their being obliged to learn after repeated failures, that profitable results can only be made certain, in those cases where the seed bed has been thoroughly plowed and pulverized; this is a good time to inculcate and reform this doctrino. Anyone with but a short trip through any farming district, can easily ascertain why some crops are good, and others poor, on contiguous fields, and similar soils; those who get good crops did their work, as it should have been done, and *"took no chances,"* the others *"trusted to luck,"* and got all the luck they deserved; the latter deserves no pity, and get none from men; the former don't want it.

Preparation of the Soil.

There is no longer any doubt that a summer fallow is the best preparation for a grain crop; this is more especially the case on new land, which is always raw and mild; when first plowed, tho effect of its exposure to the sun and air, is to produce a chemical action upon the constituents of the soil, which frequently changes its color; most persons have noticed that the second and third crops on newly cultivated land are much better than the first; it is not necessary that a summer fallow should be a naked one, cultivated crops such as corn, potatoes, beets, beans, etc., pay for the labor bestowed, and requiring the destruction of the seeds, ensure a clean fallow. Where no crops are cultivated the weeds should be plowed under as often as they come. Successive plowings produce a fine tilth; the seed should be sown before the first rain falls, unless the ground is very muddy, in which case it is better to let the first crop of weeds start, then sow the seed, covering it with a plow or plow cultivator about three inches deep; by this plan the weed seeds that have been prepared for germination, by exposure to the sun, during the summer, are destroyed, and the grain springing up will shade the ground, and prevent the next crop starting. When it is found that these early sown crops are in danger of being caught by the frosts, by blooming too early, it is better to cut them back with a mower when about 12 to 15 inches high; this will cause the plants to stool vigorously, and as the number of stalks are doubled, the straw will be shorter, and much less likely to lodge, and as the crop will mature at least four weeks later the risk of frost is removed.

Volunteer Crops.

As it is an almost universal custom to make one seeding produce two, and sometimes three crops, the necessity of thorough plowing is still more apparent, and its effect is often more evident, in the volunteer than in the previous crop, ground is a long time in forgetting a good plowing, and if it is necessary for raising small grain, how absolutely important is it for corn, roots, or other hoed crops; they cannot be produced without it; consequently I advocate their use on summer fallows, because they pay for, and require the extra cultivation, that ensures the succeeding grain crops.

Summer Fallows,

Not only fit the vegetable and mineral constituents of the soil to be food for plants, but when the work is thorough, they accumulate a large supply of moisture, for the next year's crop; it may doubtless seem strange that moisture should accumulate and increase in land during the dry season, but it is nevertheless a fact, and one easily proved; let any one dig in clean well plowed fallow in the summer, and fall, and after removing 3 or 4 inches of loose dry dirt he will find the soil below full of moisture; to test this question fairly the ground should be plowed and pulverized not less than 8 inches deep; this will give 4 inches of mellow soil, in which to accumulate moisture below the dry surface dirt; if the ground is only plowed 3 or 4 inches deep the heat of the sun will penetrate to the hard soil below and in most cases the ground will be as dry as if it had not been plowed. I now simply state the fact; in my next I will give the reasons why this moisture accumulates.

WM. R. OLDEN.

Anaheim, May 29th 1873.

Carmel Valley, Monterey County.

EDITORS PRESS:—I have confidence in your wishing the RURAL PRESS to be the exponent of "the truth, the *whole truth*, and nothing but the truth" respecting this much-favored State of California. Having myself been a sufferer from putting too implicit confidence in numerous works, edited by authors who only saw (any how only wrote of) the brightest side of everything through a medium tinted with most charming rose color, I desire to give Eastern friends and readers some few notes on the present season, as it bears relation to farming interests. I speak only of what I know and have seen, and premise that my remarks apply to Monterey Co. and the southern counties generally.

The rains which usually come in the months of October, November and December were in 1872 conspicuous by their absence. This, though somewhat of a loss to the farmer, as it delays his plowing, was probably a benefit to the grazier, as it leaves the old grass in more nourishing condition. About Christmas the rains set in, and during January and February, 1873, we had some of the prettiest weather I have seen during seven and a-half years' residence in this State. Every few days nice gentle warm rains fell; grass came on with unheard-of rapidity, and, to fall back on a vulgarism, "everything was lovely." Never had a season promised better, but it "took it out" mainly in promises. No more rain to speak of has fallen to this day, although in this little coast valley we had a few cold showers, with snow on the hills. The most considerable of these was on April 4—a frost that will be well remembered throughout the State for the damage it caused to vines and fruit-trees, succeeding this shower.

When no rain falls from March to May, whatever may be in store for us in the way of showers is likely to prove detrimental rather than beneficial. So we resigned ourselves to short grass and light crops of grain, and hoped to eke out the scarcity of fodder by raising summer crops, which by the good cultivation obtained in the valley, we expected to succeed fairly in spite of the dry season.

It was pleasant to see our thrifty "truck patches," corn, pumpkins, beans and tomatoes well out of the ground, and their tender green contrasting prettily and hopefully with the parched grass, but now May 31st (mark it Eastern readers) comes a frost—a killing, chilling frost—and nips them in the bud, aye, even to the shoots of the grape vines. At a convocation of neighbors to-day, re-planting to-morrow was the unanimous voice, and may the fogs reward our perseverance. I have just given these few notes that Eastern readers may see that we have our little troubles here, though of a different nature to theirs. It may be argued that this is an exceptional season. Is there ever a season that is not exceptional? Out of eight seasons experience, but three have been years of abundant rains, and there is a possibility of frost any month in the year; either in July or August some neighbors had their pumpkin crop destroyed by frost, while part of my own was blackened. I would draw attention to the necessity of guarding against such casualities by growing, where possible, such half-hardy crops as mangel wurzel in place of tender annuals such as the squash family. I have some four or five acres mostly sown in March, in parts of which there are already wurzels four inches in diameter. The yield per acre is, with good cultivation, immense. They stand about two feet apart each way, and can be raised to weigh over 50 pounds each.

Gophers.

In reply to a correspondent. If you have any young beets, take as many as you have gophers, make a longitudinal slit with a pen-knife, and turn the knife so as to open the slit while inserting a split straw previously dipped first in a thick syrup of sugar and water, then in finely pulverized strychnine; remove the knife and press the sides of the slit together as you draw out the straw, dig down to the gopher's main street, put in the beet and cover up till next morning. Then go and see how much beet is left, and if the beet is gone leave open the hole to see how much gopher appears. Sometimes gophers prefer some other delicacy, green peas or new potatoes; if so, cook up his favorite dish with similar seasoning. The strychnine must be well pulverized; it is worth buying a pestle and mortar for the business. There is a good trap sold in some stores, made of two pieces of iron hinged together at one end, then comes spring, trigger and grabbing arrangement, that is efficacious if used with care and common sense; but the poison is much less work and surer. E. B.

June 1st, 1873.

The Crazy Disease.

EDITORS RURAL PRESS:—I see in your paper of May 17th ult., a communication from Bear Valley about the crazy disease of horses; he describes a disease that has prevailed here for several years among the horses that run on the mountains, and called by the same name here, and nearly all have died, being mostly wild horses. I had one that had it; he was first given condition powders, 2 doses; then I gave him about one tablespoonful of copperas in bran, then a little sulphur, and he is as well as he ever was, not showing any symptons of the disease. I know of one other that was cured with the condition powders alone. Horses in the valley kept up, never take it. H.

To Destroy Gophers.

EDITORS PRESS:—I observe in your last issue of May 31st, that some person up at Shingle Springs is in trouble about "the gopher," and wants information. I use poison, either strychnine or phosphorus. The first pulverized and placed in any vegetable, in small quantities, of course, and placed in the run-ways of the pests, in the usual way—that is dig until the main run-way or hole is found, top it, and insert a few pieces of poison, apple or potato, or other fruit or vegetables (not abundantly obtained by them,) in the hole, on either side where the opening is made, then cover up the opening with a clod or clods so as to keep out loose earth, and then cover all up so as to exclude the light, and the work is done. With phosphorus I use the following mode: Dissolve two sticks of phosphorus in two quarts of molasses—in this manner place a quantity of water in a vessel, and bring it to a boil (in the open air), and (keep *to the windward side all the time*), in the meantime suspend your syrup in a small pail or can in the boiling water and keep it there until the phosphorus is melted or dissolved, then stir in one-half pound of shorts or flour, and let it cool. Secure the mixture in the can—placing it away from the *house*—and away from stock, and use at your leisure, in the same way as with strychnine, placing a little of the paste on almost any green thing, and place in the gopher hole, cover up, etc., and ten to one you kill your enemy. D. C. V.

San Jose, May 31, 1873.

Monticello, Napa County.

EDITORS RURAL PRESS:—I wrote you several weeks since, relative to the effects produced by the severe frosts of the early days of April. The piece of wheat, supposed to have been killed at the time of writing, is "alive and well" at the present, and gives promise of yielding from twenty-five to thirty bushels per acre. At one time I was sure that fire, if set, would have burnt all over the field. The crops suffered more from frost than drouth. In fact, we would have made a good average crop if the frost had not set the young grain back.

Napa valley will yield perhaps as large a crop this season as it did last. Farmers are jubilant, and well they may be, with large well filled wheat heads, looking over a five board fence. Suisun valley will produce an average crop. We noticed one piece of wheat, belonging to A. Perry, Esq., which is equal to any we ever saw in any country or any season. Morris, Brouson, Haile, Harper, Berry, Smither and Gambel all have good crops, and we were told that the farms we could not visit are in a fair way to produce abundant harvests this season.

I shall visit the upper portion of Solano county, and travel through Yolo in a few days, and will give your readers a synopsis of farming news. SAVAGE.

June 2d, 1873.

Cambria Grange.

EDITORS PRESS—Saturday I started out to get signers for a call to start a Grange; got 27 names. Those that take the RURAL knew what a Grange was, but most of them asked, "What is a Grange?" I took several numbers of the PRESS with me, so that I advertised you somewhat, and will now try and get subscribers. I am confident I will get a Grange here.

I want to know if there is an agent in San Francisco to make purchases for the Granges, if not, try and stimulate the question so as to have one, and then let him be noticed in the PRESS. We shall combine here and send an order to the city soon, to buy such things as we may want, and intend to send monthly or oftener. G. W. P.

San Luis Obispo Co., June 2, 1873.

There is no agent yet, and no State Grange at present organized; but the way is being rapidly paved for a strong and vigorous one.

Sulphur vs. Gophers.

EDITORS RURAL PRESS:—I saw in your issue of May 31st, page 338, an article under the heading of "Gopher Nuisance," and for the benefit of P., of Shingle Springs, or any other man, I will state that flour sulphur plowed or spaded into the ground used for garden "truck," will keep the gopher party quiet long enough for said "truck" to mature. I tried it in a strawberry bed and found it a perfect success. A. W. G.

Will A. W. G. please state the quantity of sulphur required to affect the object, say upon one square rod of ground?

Brahmas as Layers.

EDITORS RURAL PRESS:—"Occasional," of Paradise Valley, gives his experience in raising Brahmas, and would know how others have succeeded. I have kept Light Brahmas two years. I paid forty dollars in San Francisco for three. I paid twenty twenty dollars for Dark Brahma and Hamburg eggs, one year since. I will not go into details, but pronounce them a humbug that should be exposed. From my experience and observation I think no candid man can say that he would raise them or sell their eggs for three times the market value of common fowls and eggs. Why should we try to improve our present stock by crossing with fowls that are not good layers; that cannot endure extremes of heat and cold; that have no redeeming quality but selling for the exorbitant prices that greenhorns will sometimes pay for them? The best way to improve fowls is to select eggs for hatching from our best laying hens, change eggs or males occasionally with those that do the same. I have plenty of sour milk for my hens; ashes, lime and dirt to scratch in; piles of old manure to scratch bugs and worms from; waste grain from the stack bottoms, to keep from six months of the year; and boys to tend the chickens and hunt the eggs. With these advantages I find them profitable.

FARMER.

Atlanta, San Joaquin Co., May 30th, 1873.

We give place to the foregoing because we are willing both sides should be heard, in the matter of the value of high priced fancy stock; and as the opinion of one who has given it a trial.

HELP YOURSELF.—Fight your own battle. Hoe your own row. Ask no favor of any one and you'll succeed five thousand times better than one who is always beseeching one's patronage. No one will ever help you as you help yourself, because no one will be so heartily interested in your affairs. The first step will not be such a long one, perhaps; but, carving your own way up the mountain, you make each one lead to another, and stand firm in that while you chop still another out. Men who have made fortunes are not those who had $5,000 given them to start with, but started fair with a well-earned dollar or two. Men who have, by their own exertion, acquired fame, have not been thrust into popularity by puffs begged or paid for, or given in friendly spirit. They have outstretched their hands and touched the public heart. Men who win love do their wooing, and I never knew a man to fail so signally as one who has induced his affectionate grandmamma to speak a good word for him. Whether you work for fame, for love, for money, or for anything else, work with your hands, heart and brains. Say "I will!" and some day you will conquer. Never let any man have it to say, "I have dragged you up." Too many friends hurt a man more than none at all.—*Grace Greenwood.*

PETROLEUM IN CALIFORNIA.—The Los Angeles *Star* suggests the establishment of a petroleum refinery in that town, and makes the following estimate of the expense and profit of producing kerosene from the crude oil, of which considerable supplies are now obtained near San Fernando:

Cost at the deposits for oil, 5 cents per gallon for crude, three of which will make one gallon of refined oil	15 cts
Haulage	2½
Expenses of refining	2½
Containers, tins	3
Miscellaneous	1
Total expenses per gallon	23 cts
Market value	40
Net profit	17 cts

But the profits of a refinery would not stop here, for there would still be left the unrefined oil, which contains from 16.6 to 31.7 per cent. of lubricating oil, used in machinery, and after this there is a solid residuum.

WOMAN AS A PLANTER.—The Greeley, Colorado, *Tribune*, says: Mrs. Harriet M. Atkinson has, with her own hands, planted over 1,300 forest trees, and upward of 90 apple trees, also several pounds of forest tree seed, and half a barrel of black walnuts. The trees planted are mostly maple, ash and elm, and they are doing well. Before coming to Greeley, she would never have dreamed of performing such a task. Who says "the good time" is not coming?

THE four States of South Carolina, Georgia, Florida and Alabama, are compelled to buy about 50,000,000 bushels of grain from the Northwestern producers every year. For this they pay on an average nearly $54,000,000. But of this amount the Western growers get less than $16,000,000. The $38,000,000 which the people of the consuming States pay over the amount realized by the producer is divided among different transportation companies.—*Carolinian.*

A MACHINE in Philadelphia turns out 3,000 complete paper match boxes per hour.

HOME AND FARM.

Farm House Chat.

[By Mary Mountain.]

I can imagine what will be the cogitations of an Eastern farmer after reading my description of the cheap farm-buildings in California.

He will cast his eye proudly over his own handsome house, stately barns, well built out-houses, and all the belongings so conveniently placed, and arranged in a labor-saving way, and whistling softly to himself he will question this severely. "Can a fellow sacrifice everything for climate? How *should* I feel with only a bare piece of land and a board shanty to live in? How would my wife feel? What the mischief can be the matter with those California farmers that they dont have better homes and something to be proud of? I wonder how their wives do stand it anyhow. Of course its a new country and folks cant have everything in a hurry; but they brag how things grow and always grow, and how stock comes on mostly without any care, and nothing whatever to hinder a fellow from working winter and summer right straight through. With any sort of a decent start it seems a man might build up pretty fast, get everything shipshape and *live like folks*. If ever I do go out there; bless me if I dont show them how to farm!"

That's the talk, my dear sir, and I wish you would come as an agricultural missionary; but the probabilities are you would get spoiled on the way.

The continent is so broad, the western prairies so big, and with every thousand or so of miles a man's ideas get more and more loosened from the compact, well-ordered grooves of the familiar past, and they grow, and mix, and modify till the whole mental machine is not like the thing it was, and there is hardly a safe peg anywhere upon which to hang old-fashioned Yankee notions.

One hundred acres of cleared land amid the forests of Maine is a big enough farm to divide fairly into fields, pastures, etc., and with a little wild land for a wood lot the farmer has enough room and enough work for himself and boys.

But one huudred acres amid tho broad Western prairies? How little it is! Hardly gives a man elbow-room! And so he straitway giveth all that he hath, yea, more than he hath for land aud more land, until there is nothing left for the home and the necessities of business. And what then? Why, a mortgage! that fatal joke of servitude which the farmer slips on so easily and—does he ever slip it off?

When California farmers slip it off I hope to have a better story to tell about them; and am glad to believe there are now a very few who can count the profits of their toil into their own purses instead of handing them over to swell the revenues of capitalists.

"And how do the women eujoy the pioneering?" Like all women in all ages they can do their share of grumbling at the existing order of things; but probably the world has never seen more sensible, reasonable, patient women than can be found to-day among the rough farm-homes of California.

To be sure the angelic part of them must be spread so very thin in the vain effort to cover up the rude privation of their lives, that it sometimes breaks through and you see only a worn-out, discouraged woman. But generally they bear up with true womanly grit; they make a little go a great ways, and when it is worn out they turn it and make it do for something else. They learn masculine trades and no one questions their right to handle the whitewash brush, the axe, the saw and the jack-plane. They make for themselves tables, cupboards, closets, etc., and take a patient sort of pride in their clumsy handicraft, saying, "These will do until we can get something better." Or if they lack the strength and skill required for carpentering they are enough stronger in the angelic element to say, "We must do the best we can and wait for our good things."

Then there are as in every country a few careless, indifferent and ignorant wives who eujoy a dirty sort of comfort without any fuss; and would always live from hand to mouth if they had the lovliest homes and all modern conveniences.

So there you have us in three classes; the brave, intelligent, skillful women who can help themselves and brighten everything and everybody with the generons flow of womanly cheerfulness, wit and wisdom.

The quiet, patient woman who cannot do great things but can endure, and make their own humble fight against the depression of uncongenial surroundings.

The easy-going, stupid women who have a good time anyhow, and "don't care to be bothered with so much house-keeping truck."

Then there are a few who live on farms and enjoy a large share of all luxuries that money can buy; but not often is this money furnished as the direct result of agricultural labor.

The families of our rich wheat men, cattle men and sheep men, generally live in towns and cannot be classed with the farmers of whom I write.

And now ignoriug "*the winter of our discontent*" it is probable we would all acknowledge that we enjoy more positive, personal comfort in these rough homes than we could in a handsome, hard-finished mansion located in Maine or Minnesota. Faith Rotchester in the latter state advises all prudent mothers to make for themselves and children thick overshoes of wool and fur for indoor wear in the winter; and some other instructions as to cumbrous and extraordinary wraps, and especially "the wadded ear-caps that may be fastened by an almost invisible elastic," have led me to believe the newspaper fact that only three noses escaped freezing in Duluth and those belonged to tea-kettles. Some California children go barefoot the year round and suffer very little discomfort from cold: but most of the children never go barefoot, as it is upon the whole, more comfortable to be shod.

Those who must study economy can manage very well with the same style of clothing for the whole year and especially is this true in the coast counties where we can say of nearly all our garments, "they will do equally well for winter or summer."

Talking of economy brings me to the promised topic—"what does it cost to live?"

The year before last we kept careful acconnt of all ont-goes; food, clothing, reading-matter, every thiug that cost money was duly booked.

There were five in family for about three months and four the rest of the year, with an average share of company. The bill of expense footed up $283 and a few odd cents.

Dio Lewis would call that extravagant; while scores of others would say: "How they must have pinched! What *did* they have to eat?" Well, we have always a table to which we are not ashamed to invite strangers or friends; and there is always enough and to spare, but never any to waste; never any spoiled or mouldy food to throw away.

It is true we bought very little clothing that year, and there was no dressmaker's bill, no Dr.'s bill, and nothing whatever in the tobacco and whiskey liue. We buy our groceries at city wholesale prices and thereby make a great saving. It must also be remembered tbat we live in the woods and fuel costs nothing but the chopping.

Our farm was rented and we had everything to buy except our milk, fruit from the orchard, and a very few vegetables—not so many as are often raised in the small village gardens. Our butter, though made on the place, was paid for at San Francisco prices.

This explanation is necessary to guard against the supposition that we could live cheaply on account of "raising" our food, or a large part of it. On the contrary our "provision bill" was almost precisely what it would have been if living in town.

I have reason to believe that our household and personal expenses never in auy year go beyond $350 or $375.

Having asked several persons to guess the amount, and, as no estimate has gone below $600, I am forced to believe that we live very cheaply, or else people guess rather extravagantly, or, perhaps, have no idea of the cost of country living and so guess wildly.

My uncle Toby has been rambling over the subject in his usual emphatic style and some of the more prominent growls are noted for future reference.

I would very much like to hear from others upon this matter; farmers, mechanics, miners, millionairs, middle-men, anybody who knows just what it cost them to live.

Probably the majority of the people keep no reckoning; but are like the good woman who moved into town and was bragging to her cuntry cousin about the luxuries and bounties of Providence that crowned her board.

"But" says Country Cousin "you must find it very expensive!"

"O, bless you, no indeed! there's] a grocery store right across the street!"

Wonders of the Deep.—Some interesting deep sea explorations were made during the recent passage of the British Exploring Ship, Challenger, from England to the West Indies. The sounding line and dredge were kept constantly going. The former showed that a pretty level bottom runs off from the African coast, deepening gradually until the depth of about three and one-half miles is reached, at about one-third the distance from the African coast to the West Indies. Five hundred miles farther west there is a comparatively shallow region, a little less than two miles in depth. The water then deepens again to about three miles, and so continues until the immediate vicinity of the islands is reached.

Small qnantities of animal life were brought up all along the route, even from the greatest depths, just sufficient to show that life existed, even nnder such an immense pressure.

At the deepest spots it required 12 hours to reach bottom and haul up the dredge.

Nearly everything of life that came up from two miles and over in depth was new, and among the most interestiug novelties was a new species of lobster, perfectly transparent. Living beings were also found in which the eyes constituted tho chief bulk of the animal; on the other hand one new crustacean was brought to light in which not even a germ of an eye could be found. Nature, however, had supplied that deficiency with a great multitude of long and most delicato claws or feelers.

MISCELLANEOUS.

The Air We Breathe.

Much attention is uow being paid to the characteristics of the atmosphere in various localities, and under diverse circumstances. Analyses show that air in open and exposed localities varies in the amount of oxygen, which it contains from 20.4 to 21.0 per ceut. The most favorable localities, as on the heaths of Scotland, show the latter; while it is necessary to go underground into a mine to find the latter. Well ventilated mines show about 20.4; while our illy ventilated mines, where it is possible to labor, rarely go below 20. These results are derived from thousands of careful analyses. Cavendist made 500 in the course of his enquirics.

The cursory reader may think that the difference between 21, and 20 in the per cent. of oxygen in the atmosphere can have but little importance, and is hardly worth enquiring. It is true that the deficiency named is small when considered in figuring; but when wo reflect that while 21 represents the largest amount of oxygen ever found in the best natural atmosphere, a candle goes out at 18.50, and life can bearly be sustained for a short time at 17.20, the importance of a small per cent. of difference becomes apparent. Even so small a difference as that between 21, and 20.981 is equal to 190 in a million; and if we place impurity in water at that rate it will amount to 13 grains in a gallon. This amount would be considered enormous, if it consisted of putrifying matter or any orgauic matter usually found in water.

But we drink but a small quantity of water, and with such a percentage we might be several days in swallowing the whole 13 grains; whereas we take into our lungs from 1500 to 2000 gallons of air each day. Moreover the blood receives such impurities almost entire, very little being filtered out in its passage to the lungs; while the stomach has powers of disinjection and destruction which renders harmless very much of the organic impurities contained in water. But if we take the air found in the pit of a theatre, generally abont 20.740 we find the minute analyses becomes a matter of the highest importance.

The senses are bad and inefficieut guides to the wholesomeness of air as regards the amount of oxygen and carbonic acid, save when the former is reduced and the latter increased to such an extent that the lungs seem to refuse to expand and the whole vital action is threatened with paralysis. Rooms badly ventilated, which contain less than 20.7 per cent. of oxygen are very unwholesome, and the necessity of taking into consideration the proportion of oxygen and carbonic acid in the sanitary inspection of factories and workshops is abundantly evident from the results obtained by Dr. Smith.

Mr. Clemson, a French chemist, mado public, in 1856, a theory with regard to the presence of living organisms in the atmosphere, so minute as to be almost or quite unabsorbable by the best microscope, and which organisms exerted a marked influence on health—in fact were the origin of most diseases to which men are subjected. He also argued that there is phosphoric acid in the air, derived from the snccessive generations after generations of myriads of these organisms, produced, living aud dying in the atmosphere; that such organisms exist and are at work, assimilating from one to the other, preparing food for more perfect organisms, from the microscopic points of life to the most perfect animal existence. He also entertained the idea that the inoreased fertility of the earth by being broken up and exposed to the atmosphere, was due to the presence of such animalculæ.

German Steel in China.—It is a fact worth noting that, during the past two or three years, German steel has been gradnally gaining ground in the estimation of the native manufacturers of Shanghae, to the very great detriment of the importations of steel from England. While fully recognizing the superiority of the English article, the natives, with their indifferent art, find the quality of the German product more suitable for their inartistic workmanship than that imported from this country, the high temper of which renders it difficult of manipulation by them. The Germans are importing at a profit of about eight per cent., an article called by the natives "bamboo steel," which is simply an ordinary bar dented at intervals of about two inches, and is therefore easily convertible into appropriate lengths.

How Fast can a Wheel be Made to Revolve?—There is no limit to the number of revolutions which a wheel may be made to make in a given time. Savart, in his experiments on the theory of sound (aconstics), made wheels to revolve from one thousand to two thousand times per minute; but this has been surpassed by Foucault, who invented an apparatus for measuring the velocity of light, to which a small wheel with a mirror was attached, which might be made to revolve 600, 800, and even 1,000 times per second, or 60,000 times per minute. These are the most rapid revolutions thus far obtained that we are aware of, but there is not the slightest reason why even this should not be surpassed. It is evident that for such great velocities cogwheels are out of the question; only bands or strings can be used.

Curious Facts in Astronomical Calculations.

Few persons are aware of the nicety required in astronomical observations. The rod used in measuring a base line is commonly somewhere about ten feet long; aud the astronomer may be said to apply the very rod to mete the distance of the stars. An error in placing a fine dot which fixes the length of the rod, amounting to one-five-thousandth of an inch—the thickness of a single silken fibre—will amount to an error of seventy feet in the earth's diameter, of three huudred and sixteen miles in the sun's distance, aud to more than sixty-five millions of miles on that of the uearest fixed star. As the astronomer in his observatory has nothing farther to do with ascertaining lengths or distauces, except by calculation, his whole skill and artifice are consequently exhausted in the measurement of angles, it being by these alone that spaces inaccessible can be compared. Happily a ray of light is straight; were it not so, in celestial spaces at least, there was an end of astronomy. Now, an angle of a second—3,600 to a degree—is a subtle thing. It has an apparent breadth utterly iuvisible to the unassisted eye, unless accompanied with so intense a splendor, as in the case of a fixed star, as actually to raise by its effect on the nerve of sight, a spurious image having a sensible breadth. A silkworm's fibre, such as has been mentioned above, subtends an angle of a second at three and a-half feet distance; a cricket ball, two and a-half inches diameter, must be removed, in order to subtend a second, about eight miles, whore it would be utterly invisible to the sharpest sight, aided even by a telescopo of some power. Yet it is on the measure of one single second that the ascertainment of a sensible parallax in any fixed star depends; and an error of one-thousandth of that amount—a quautity still uumeasurable by tho most perfect of instruments—would place the star too far or too near by 200,000,000 miles, a space which light requires one hundred and eighteen days to travel.

Steel vs. Iron.

One great objection to the more general employment of steel for purposes where much strain is to be endured, and whero human life is to be risked, is, according to Mr. Robert Mallet, the lack of some reliable and ready means of testing the same. The very quality that chiefly recommends steel is the one most difficult to determiue, and the most dangerons if absent. The strength of steel in plated structures as proportioned to iron, is usually rated something liko 10 to 6.

One great source of imperfection in steel is the injuries which it is liable to sustain in the process of manufacture; when a bar or plate gets a hammer-blow while hot, or auything like a dent, or sustains any concussion which causes a sudden change of dimension, however minute, such bar or plate, in most cases, is certain to give way at the point of concussion on receiving a strain much less than would break the bar elsewhere. Anything, also in the nature of a superficial injury to a plate, is much more serious in its effects on steel than on iron.

Steel as adapted for rails is said to show greater difference of good and evil than it does under any other conditions for use. A commission of fifteen railway engineers recently reported that the weight of evidence was in tavor of employing steel instead of iron for rails in railway use; but especial stress was laid upon the necessity that existed for the exercise of the most extreme case in the manufacture of the rails—especially in handling them while hot. Experience had shown that steel rails almost always break at the point where some injury had been received while the rail was hot. In most cases such rails break in a few weeks; while perfectly sound rails work without any perceptible wear or injury, for 12 or 15 years.

Steel is prone to be very much snperior to iron when used for gearing; but it is proved that gearing monnted on timber framing is much more liable to fracture than when properly fiitted on an iron frame. Wood, even when well secured, will warp and twist sufficient to disarrange delicate machinery.

Close attention is beiug paid to the use of steel as far as adopted, with the view of its more general adaptation, according to the greater or less extent of success which may attend its present employment.

Annealing.—The change produced by annealiug is not well understood. Most of the malleable metals assume two distinct forms: one crystalline, which is the result of slow cooling; and the other fibrous, which is brought about by hammering or rolling. If hammered or rolled beyond a certain point, the metals become so hard that they cannot be bent without breaking. If annealed beyond a certain point, the metals become crystalline. Thus, zinc may be drawn into a very flexible and tenacious wire; but if kept in boiling water too long it resnmes its original brittleness, and displays a crystalline appearance when broken. The particles of the metal change their arrangement without altering the external form, and this change may be brought about in various ways; thus, brass wire loses its tenacity by exposure to the fumes of an acid, and even by air acting on its surface in a damp atmosphere. Hence it is necessary to preserve wire, such as is used in the manufacture of pins, in a dry air, or under the surface of water.

The Milk Supply of Cities.

We purpose to give, perhaps a series of articles on milk production and the manner of supplying large cities, together with the costs and profits attending it, as connected with some of the eastern cities of the Union, where the subject has received careful attention not only from those immediately interested, but from reports of municipal authorities who have taken under their supervision the quality of milk sold. We think we shall be able to show that large and certain profits might always attend the prosecution of this branch of agriculture, but for the—perhaps necessary—interposition of middle men. For facts, we shall draw largely upon such reports and essays on the subject as we find advisable. The Report of the Department of Agriculture for 1870, says:

The milk supply of our cities and towns involves sanitary and economical considerations of the highest importance. The accompanying abstracts of reports of milk inspectors, and of others conversant with the milk business in various sections of the country, illustrate the magnitude of the interests involved in this branch of dairy farming, the abuses connected with it, and the methods used to counteract these abuses, the frequent disproportion between prices at first hands and the cost to city or town consumers, and the comparative profits to producers of marketed milk and milk manufactured into butter and cheese.

Inspection of Milk in Boston.—The first act to punish fraud in the sale of adulterated milk in Massachusetts was passed by the legislature of that State during the winter of 1856. This act authorized any person to make complaint and to prosecute for violation of its provisions; but, as far as is known, no complaints were made. The law accomplished nothing.

In the winter of 1859 a new law was enacted, which provided for the appointment in towns and cities of inspectors of milk, whose duty it should be to detect adulterations of milk and secure the conviction and punishment of offenders. Boston was the first municipality in the State to appoint an inspector whose time should be exclusively devoted to the performance of this duty, and it is believed that it was the first city on the continent to make the effort to secure a supply of pure milk for its citizens by arresting and punishing the venders of an impure article. The office of the Boston inspector was established August 10, 1859.

In March, 1864, the law was again revised. The new act forbade, under stated penalties, sales of milk produced from cows fed upon the refuse of distilleries, or any substance deleterious to the quality of the milk; it also forbade the sale of milk produced from sick or diseased cows; also the sale of milk adulterated with water or any foreign substance. City governments were required, and the authorities of towns were permitted, to appoint one or more inspectors of milk. Venders of milk were required to register with the inspectors their names and places of business.

In 1868 the law of 1864 was so modified as to limit the imposition of penalties to persons selling milk known by them to be adulterated. It was soon found that this qualification opened the way to constant evasion, and rendered the law to a large extent ineffective. In addition to the immunity afforded to willful ignorance, was the difficulty of proving criminal knowledge. The public very naturally held that the crime of ignorance was not less culpable than the guilty knowledge, and that dealers should be held as responsible for one as for the other.

In the following year, therefore, the distinction was annulled. By an act approved April 10, 1869, the sale, or possession with intent to sell, of adulterated milk was forbidden, under a penalty of a fine of not less than $20 nor more than $100. A similar penalty was imposed upon the sale of adulterated milk for manufacture into butter or cheese.

The following particulars are derived from the reports of Mr. Henry Faxon, inspector of milk for the city of Boston, for the period extending from March 31, 1869, to March 31, 1871.

Very few Boston milkmen produce on their own farms the milk which they sell. Two sources of supply are relied upon. Many are supplied from the stations at the termini of those railroads which bring milk from the country. Others live a few miles from the city, and at night go through their respective neighborhoods and collect a few cans each from small farmers. A few milkmen are supplied by large dairies. The quality of the milk collected near the city does not differ materially from that supplied by the railroads. Both kinds are regarded as good, fresh, family milk. Most of the milk used in Boston, however, is obtained through the railroads. The general plan of conducting the milk business on these roads is thus described:

Milk agents contract twice a year with the farmers for their milk, October 1 and April 1, and agree to pay monthly. Milk collectors are employed by the agents to collect the milk from the farmers' doors, and to deliver it at the door of the milk-car to the agent, who remains on the train. From the milk account of his collectors, and the dairy marks on the cans, he knows from whom each can of milk came. The milkmen receive their supply from the agent upon the arrival of the train at the city, paying him once a month. Some of this milk is distributed to consumers immediately; the remainder is conveyed direct to the stables of the milkmen and is packed in ice until its delivery at an early hour in the morning.

The supply is always equal to the demand, except during portions of July, August, and September, when it sometimes fails in part, owing to warm weather.

Farmers in Council.

San Jose Farmers' Club.

The Club met June 7th, President Casey presiding.

On motion it was ordered that the resolution in regard to the late decision of the Supreme Court, relating to the taxation of solvent debts, be taken up for discussion next Saturday.

On motion of Mr. Bergland, it was ordered that under the order of paying dues, the name of each delinquent and the amount of his arrears, be read at each meeting.

A communication from Mrs. Dr. Larkin announced that she would manufacture grain sacks for half a cent each, the material to be furnished by parties for whom the work is done, provided $1,200 or $1,500 worth of work is given her this season.

Mr. Ware, from the Sack Committee, stated that before any arrangement is made, he desires to go to San Francisco. He understood that there were in the State and on the way, from eight to ten million sacks, and that the number required to secure the crop could not possibly exceed seven millions, thus leaving a large surplus in bags, and he supposed the price would come down in proportion. He thought sacks could be bought for less money than the material would cost.

Mr. Hobson thought if they could be made as cheap here in San José as they can be purchased already made he was in favor of authorizing the work done here, but if it would cost more to make them, he would not consider it best to make any arrangements at present.

Mr. Ware further stated that most of the bags in the market and on the way, are handsewed, and preferable on that account.

On motion, the communication was referred to the Sack Committee.

The question for discussion was, "How can farmers make the business of farming more attractive to their sons and daughters?"

Mr. Erkson said it was generally admitted that the subject of farming is not attractive to our sons and daughters, and the first question to be determined is, why this indifference and distaste of our children for the occupation of their parents. He thought that an improvement could be made both in and outside the farm-house. The farmer should surround his children with books and periodicals, and should be sure to take his county paper, so that his children can know what the world has done and is doing. These things all serve to make home attractive to the children, and this is the first great object to be attained in giving the young folks a taste for the farmer's business. The children should be taught to love the "home" first, and affection for the farm and a taste for its cultivation, will soon follow.

Mr. Chipman said he had had experience in this thing, and although he had provided his children with everything Mr. Erkson had spoken of, he had yet failed to make farmers of either of them. He thought the reason why our children did not stay on the farms was because there were greater attractions elsewhere. When young persons can get $80 or $100 per month for teaching school, they would not work on a farm for $30. The times were fast getting so that the man who does the least gets the most pay. The man who feeds a thresher, gets $4.50 per day, while the man who pitches from the stack gets only $2. Until wages are regulated by the amount of work done, farmers could not hope to keep their children at home.

Mr. Haskell thought that Mr. Chipman had exactly the right idea of the matter. People like society and social intercourse, and this cannot be had to any extent on a farm, the population being too small, hence farmers' wives and children always have a longing to live in town. He thought the German method the best, as they collect their residences in little villages, going out to their farms in the morn- and returning at night. The people here, however, have to be fleeced by operators, and cannot find the money to enable them to live in towns.

Mrs. Herring said the true secret of the distaste of young folks for farms and farm-life, is that they are compelled to work too hard—too many hours. When they come to town and see people having two, or three, or four hours to spend in recreation between work and sleep, naturally they think town life preferable. Farmers' wives and daughters like beautiful things, but what farmer in this country thinks of adorning his home either with a flower garden or in any other way? She thought, too, that farmers should pay their children for their labor on their farms. If a farmer would pay a hired man—a stranger—for a day's work, why not pay his son for the same work?

Mr. Erkson thought farmers worked too hard. They get up early, and work until they go to bed. No time for anything but eating, and hardly time for that. He cited the heathenish manner in which working men—hired help—are treated on farms. Farmers' children could get no affection for a pursuit that would subject them to such degradation.

Mr. Berglen thought the farmer should either pay his children for their work or give them a share of the profits. We are only working for our children anyhow, and if we can keep them with us by giving it to them a little sooner, we should do so.

Mr. Chipman said the gentlemen didn't seem to know anything about how farmer's children are raised in this country. He didn't believe the farmers' children worked enough to earn their bread in this country. As for working hired men to death, he never allowed a man to commence work for him before 7 o'clock in the morning, nor to work a minute after 6 o'clock in the evening. He believed the best way to remedy the matter would be to educate all our children to do all kinds of business, so as to do away with the high prices paid for professional labor.

Mr. Cadwell thought the whole question turned on the equalization of wages. Until a man can get as much wages for farm work as for any other service, the children will go where they can get the most money for the least labor.

Mr. Fowler said the question was, which did it cost the most to make, a good farmer or a good school teacher? He had been trying for twenty-five or thirty years to make a good laborer, and he thought he could have made a pretty good school teacher of himself in that time, and he could not see why a school teacher should get four dollars for a day of six hours, while the farmer must work twelve hours a day for less than half that amount.

The discussion was carried on for some time further, in the same strain, when three o'clock having arrived, the Club adjourned.—*San Jose Mercury.*

Agricultural and Mechanical Society.

Morning Session.

The Napa and Solano District Agricultural and Mechanical Arts Society met June 3d. Present, President William Governeur Morris, John Callender, Thos. L. Thompson, Ed. McGettigan, Henry Connolly, J. M. Thompson, B. B. Jackson, and John M. Gregory, Secretary.

The Secretary was ordered to advertise for proposals for the leasing of the Agricultural Park, for one year, with the privilege of three from date, August 6th, 1873.

Carried, that Lake County be admitted into the Agricultural Society, on the citizens of said Lake County buying $1,000 in stock in this society.

Carried, that a committee of three, consisting of the President, Wm. Governeur Morris, Ed. McGettigan and A. A. Ritchey, canvass Lake County, for the purpose of soliciting the purchase of the above-mentioned amount of stock in the Napa and Solano Agricultural Society.

Afternoon Session.

After a recess of one hour and a half the meeting was again called to order by President Morris, there being present Jno. E. Williston, H. Connolly, B. B. Jackson, T. L. Thompson, Jno. Callender, E. McGettigan, J. M. Thompson, Jos. Jacobs, John Brownlie and Jno. M. Gregory, Secretary.

The first business brought before the meeting was in regard to the amount to be appropriated for the premiums, etc., for the coming Fair, $4,000 having been the amount appropriated last year.

The sum allowed the races last Fall was $1,600 but J. E. Willistan thought that this sum would be scarcely sufficient for this year. It was his opinion that larger purses would bring in more people and increase the number of entries accordingly.

Moved and carried, that the sum of $5,000 be appropriated for premiums for the coming Fair.

A discussion here ensued as to how the moneys should be divided between the agricultural and racing parts of the Fair.

Thos. L. Thompson was in favor of offering liberal premiums for the agricultural and horticultural departments of the Fair.

Carried, that of the $5,000 appropriated, $2,750 be allotted as premiums for the agricultural and mechanical portions of the Fair, and $2,250 to the races.

On motion the following gentlemen were appointed to constitute the Committee on Speed: Nathan Coomba, of Napa; J. E. Williston and A. M. Stevenson, of Solano. Also the following as a Committee on Premiums: J. M. Thompson and W. A. Fisher, of Napa; Geo. C. McMullan, of Solano.

The repairs and changes needed at the Park were then discussed; also the entrance fees to the Pavilion and Park; but no action taken.

The Fair is to commence on Tuesday, the 9th of next September, and to continue for five days.

It was resolved that the Society give a grand ball at Farragut Hall during the week of the Fair, and Friday was the day mentioned.—*Independent.*

In England they are making an attempt to introduce green corn among the table vegetables. The effort is looked on with so much favor that a letter advocating it has been admitted into the city article of the *London Times*, from J. C. Brehaut, who was the reporter of class 86, in the Paris Exposition. He says that, having tried twenty different varieties of maize, he thinks "that, after two dissimilar seasons, it is fairly admitted to be a success."

Agricultural Notes.

ALPINE.

Chronicle, May 31: Sheep.—On Thursday last, 8,000 sheep passed through Woodford's for the East Carson. They came over the Amador road, and are the advance of 19,000 belonging to the Arroya Seco Grant Company. Eleven thousand are *en route* over the Big Trees road and will pass through Silver Mountain.

CONTRA COSTA.

Gazette, June 7: Weather and Crops.—The effect of this week's warm weather was quite noticeable on the growing grain, and had it continued would have pinched out a considerable portion of the later sown and hurried the balance to premature hardening and shrinkage. The change to lower temperature and more humid atmosphere with the Southwest wind on Thursday evening, was very grateful and our hopes of a fair crop depend on its continuance for the next two or three weeks, as the larger portion of the grain of this section will need that time to fill and ripen fully.

The Squirrel Pest.—The winter of the last previous season drowned out the squirrels to such extent that their depredations were comparatively light upon the crops; but they have increased and multiplied fearfully during the past year, and many of our farmers are suffering more from their depredations than ever before. We hear of one instance where they have already eaten clean twenty acres out of a crop of eighty acres; and other cases of small crops having been wholly abandoned to them, after much expense for protection of the crops had been incurred by the owners.

It is within bounds to estimate that, in time, cost of poison, loss of grain and grass, the tax upon the producers of this country for the support and destruction of squirrels exceeds one tenth of all their gross income from their products, and is twice as great as all their direct taxes for State and County purposes. Voluntary individual effort will never rid us of this pest; and the evil can only be cured by a compulsary law upon land owners, or by a graduated, liberal bounty on the scalps.

Both of these measures have been considered by the people but nothing effective has yet been done to abate the nuisance, and will not be until a united and determined effort is resolved upon. Let all the clubs and neighborhoods of this and the adjacent counties unite in appealing to the Legislature for a compulsory enactment that will compel land owners to keep their premises clear of squirrels, and we will shortly be relieved of this enormous and exhausting drain upon our resources.

EL DORADO.

Republican, June 4: We hear of damage to grapes growing on low lands by the frosts of last week. But we apprehend the damage done will result in no pecuniary loss to any one, as the indications are that the crop will be much larger than can be consumed or marketed to advantage.

FRESNO.

Expositor, June 4: Cheering.—Major C. A. Reading informs us that from the present indications the crops in the Alabama Settlement will be better than they were last year, and in fact superior to any previous season. It is, indeed, gratifying to us to be able to chronicle this news.

J. H. Phillips has shown us some very nice samples of wheat grown on his place one and a half miles from Big Dry Creek store. The stalks were 5½ feet in length, but this, of course, was above the average. The heads average five inches in length. Mr. Phillip's barley crop is equally good.

Frost.—From Mr. A. M. Clark we learn that a very severe frost occurred on last Wednesday night in the foothills, which destroyed corn, potatoes and other vegetables.

KERN.

Miner, May 31: The Biggest Yet.—Yesterday we received a box, by express from Kernville, marked "glass." Our first thought was a glass mine had been struck somewhere, but were surprised on opening the box to find two of the biggest, healthiest looking eggs that any one ever saw. On measuring the eggs, one was found to be eight and a quarter inches round lengthwise, and seven and a half inches in circumference. The other was just exactly a quarter of an inch from being nine inches in circumference lengthwise. Mr. Nelson of the Kernville Hotel is the happy owner of this very productive piece of property in the shape of a hen. He says these are not her best efforts. We have invited several of our friends to take ham and eggs with us, for at least three days.

LAKE.

Bee, June 7 Mountain Goat.—We are indebted to Dr. J. S. Downes for a piece of "mountain goat," which he killed last

Saturday, and which was almost as good as venison. Some curious individuals are anxious to know where the Doctor's "mountain goat" ranch is situated.

WILTED.—The severe frost of the 26th ult. injured vegetables, vines and fruit trees, more or less, everywhere throughout this county. Peas and beans have wilted under its effects, potato stalks turned black and withered, and many vines ditto. Corn has also been injured in many instances. Little or no fruit will be raised in Lake county this year.

NUTMEG TREES.—There are a few California nutmeg trees by the side of the road near the toll-house, on the Lakeport and Cloverdale road. It is a very handsome tree, about fifteen feet high, and has the appearance of being of the palm variety. It would be a splendid tree to cultivate, but we are told it is very difficut to succeed in transplanting it.

FROGS.—The lake shore is actually swarming with young fogs at the present time. Their appearance is something we cannot account for, though we learn it is a usual occurance about this time every year.

CUTTING HAY.—Mowing has been commenced on various ranches throughout the county, and many farmers will have a good crop of hay, if nothing else. Fields sowed in grain look well and flourishing, and some will doubtless produce a very fair crop.

Mr. Isaac Alter, whose ranch is on the eastern shore of Clear Lake, opposite Lakeport, the locality being called Paradise Valley, is extensively engaging in sericulture. He has 25,000 silk-worms feeding now, and that number of eggs hatching, which are doing remarkably well without artificial heat. He has been feeing the worms about two weeks.

He has five thousand trees of three varieties—Morus Multicaulus, the Moretta and the Alba, which was flourishing finely. Mr. Alter is taking great pains with his enterprise, and has no doubt of his success. His is the first and only experiment with silk-worms in Lake county.

MARIN.

County Journal, June 5: GRAZING LAND.—In all countries good grazing land pays the most rent. They give the greatest net return for the least annual outlay. It follows, therefore, that every farmer that has good land who can be converted into good permanent pasture will do well to put it in that condition as soon as possible. Take every year a portion, as much as you can to do it thoroughly, and put in some kind of grass or clover. Let it be well prepared and abundantly watered, till the roots are well set in the soil. Remember that you are doing it for five or six years. Every bare, thin, neglected spot is so much lost, and a sickly crop the same. Let it be well done however little there may be.

MONTEREY.

Advance, June 7: The crops in our vicinity, seemed to have greatly improved since the intense heat of the past week. It will be recollected that the previous two weeks, the weather was particularly cold, and it is reasonable to infer that the improved plumpness and strength of the grain is owing to the change in the weather. We anticipate a full harvest, and certainly a far better return to the farmers than that of last year. On the land between Hudner's and Wright's ranches, within a mile of Hollister, the wheat stands six feet high, with a head of eight inches, and on Hagan's land the grain is even superior. All around the district the appearances are most encouraging.

Democrat, June 7: THE HEAVY FROST.—A Black frost played the deuce with summer crop on Cooper's ranch, early part of last week. For most of them, fortunately, it is not too late to replant.

BUELL, the irrepressible, unquestionably shows business enterprise and sagacity. Knowing that south of this place lie what are among the principal grazing districts on this coast, he reasons that it is not necessary to drive or transport by rail the live stock an inch beyond our town. He has therefore commenced to slaughter here and forward the dressed carcasses to San Francisoo by rail—train conveying them leaving at night and arriving early next morning at the city. The climate enables him to do so throughout the year with perfect safety to the meat. This should become the rule and among the sequences we would then have here, tanneries, packing honses, soap and candle factoris, to say nothing of woolen mills. At all events Buell deserves credit for pointing the way.

NAPA.

Register, Jnne 7: WINE SENT EAST.—It gives us pleasure to note the growing repntation of our native wines in the East. To the learning and zeal of Mr. H. A. Pallet, of St. Helena, is dne a large share of the favor with which Napa Valley wines are received abroad, and consequent increasing demand of our products at remnnerative prices. Mr. P. informs us that he shipped on Friday, 30th inst., a car load of wine from his vineyard direct to Oshkosh, Wisconsin, to fill an order from Mr. A. Ford, of that place. The load contains 2,000 gallons, and embraces seven different varieties of wines.

NEVADA.

Republican, June 8: MOUNTAIN WOOD.—Eight thousand pounds of wool has been shipped from Truckee this present week to Sacramento and San Francisco. It came from Sierra Valley. This is an excelent region for sheep raising, and in a few years there will be wool enough received at Truckee to supply a large woolen mill.

FISH EGGS.—Large quantities of fish eggs are being sent from Truckee to San Francisco and other portions of the State. These eggs are principally from Lake Tahoe trout. The business of propagating trout by artificial means seeme to be popular and increasing rapidly.

SANTA CRUZ.

Sentinel, June 7: THE HAY CROP.—From appearances, we should judge that the hay crop in this locality would not amount to more than one-half of what it was last year. Hay is now quoted at from $18 to $20, and not much to be had at those prices.

CALIFORNIA WINES.—As a guarantee of the good quality of our wines, we think there is uothing speaks stronger than the immense increase of their sales during the past two years. As an instance, the Jarvis Brothers, of Vine Hill Vineyard, Santa Cruz, are shipping immense quantities of their wines and brandy to San Francisco and the Eastern States, where they stand the highest of any in the market. These wines are manufactured from the very best of grapes, and under the personal supervision of Mr. G. M. Jarvis, who thoroughly understands his business, and all wines are warranted pure and true to name.

SANTA CLARA.

Mercury, June 5: SAN JOSE WOOLEN MILLS.—A meeting of the stockholders of the San Jose Woolen Mills was held Thursday at their office, and by a unanimous vote the capital stock of the company was increased to $400,000, and $136,000 of the increased capital was pledged upon the spot.

Gilroy Advocate, June 7: TOBACCO ITEMS.—The American Tobacco Company and Pacific Tobacco Manufactnring Company have consolidated. A new corporation has been formed, called the Consolidated Tobacco Company, with a capital stock of $750,000, divided into 7,500 shares, of the par value of $100 each. The officers of the Consolidated Company are—Trustees: J. W. Stow, Tiburcio Parrott, Wm. B. Hooper, J. D. Culp and Wm. L. Hoover; President, S. W. Stow; Vice-President, Wm. B. Hooper; Secretary, W. L. Hoover; Treasurer, Tiburcio Parrott; Superinteudent, J. D. Culp. The Consolidated Company receives the united assets of both companies.

The two companies have at Gilroy and San Felipe nearly 400 acres of land planted to tobacco, all of which is growing finely. The prospects are that the Consolidated Compauy will have a crop of over 250,000 pounds of Havana tobacco and a crop of over 500,000 ponnds of other tobacco. The Havana tobacco, the earliest planted this spring, will be ready to cut in two or three weeks. The exceediugly cold weather we have been having for the last three weeks has retarded the growth of the crop considerably.

The report current last week, that the frosts had killed the plants at San Felipe, was an entire mistake, as not a plant was injured. The crop of Havana tobacco raised last year is still in bulk, sweating. Mr. Culp expects that in a month's time it will be in a condition to manufacture. The bulks have not been overhauled since they were made last fall, bnt Mr. Culp has examined the tobacco near the top and finds that it is far superior to that raised by him the year before.

If when the bulks are broken it is fonnd that the tobacco in the center improves on that near the surface, Gilroy will claim superiority over the world for cigar tobacco. The Consolidated Company is prepared to make arrangements with those desiring to grow tobacco and cure it under the Culp patents, to use the process and pay a portion of the crop to the company as a royalty. The terms can be ascertained from the secretary here, or at the offioe of the company in San Francisco.

SACRAMENTO.

Folsom Telegraph, Jnne 7: FISH CULTURE.—About four years since, a portiou of the people of Folsom, purchased a barrel of live Sacramento fish and placed them in the large reservoir above town. For two years no one was allowed to catch them, but last year and this year, large numbers have been caught, principally perch and pike of large size and excellent quality, They have been increased in quantity enormously, and now fill all the ditches and reservoirs in this vicinity. This proves what can be done on a small scale, and that every neighborhood can have its own fish, if they have streams or reservoirs in which they can be placed.

SAN DIEGO.

Union, June 5: POTATOES ON THE MESA.—Mr. W. W. Bowers claims that he can go right npon the mesa—the "barren hills" above the town—and obtain better agricultural results than in the valleys. And he proves his assertion. He has recently been digging the finest "early rose" potatoes we have ever seen in this conntry. We say *the best* advisedly. They are fine, large and mealy, and are superior in all these respects to the potatoes shipped from np the coast. But the most interesting part of this item is, that the potatoes were planted after the *last* rain, and have not received one drop of moisture from above ground.

CROPS ON THE CAJON.—The propect grows better and better in the Cajon Valley. Mr. J. F. Hills called at our office last evening and brought us some fine specimens of barley, wheat and rye. The barley was planted February 17th and is now nearly six feet high and well headed out. Wheat and rye planted a month later is equally good. Mr. Hills has a hundred acres of just such grain, and will make a good crop, averaging forty bushels to the acre. Twenty-five acres of barley will give eighty bushels to the acre. Mr. Hills will also put up about a hundred tons of hay. He informs us that about a thousand tons of hay will be made on the Cajon this season. W. G. Hill, Uri Hill, Miner and others are now cutting hay and will all do well. Mr. Hills says if there had just been a *leetle* more rain the Cajon Valley would have beaten the State this year, and we believe him.

SAN JOAQUIN.

Argus, June 7: THE HARVEST has commenced in earnest, every farmer being busily engaged in the work of heading, all having full crews of men and teams and amply supplied with machinery. So far, we have heard of no threshing being done, and, as the harvest will be a light one as compared with that of last year, the work of heading will be considerably advanced before the threshers get in full operation. From the best information we can obiain from farmers and from our own observation, we place the yield per acre on an average at about two-fifths the yield of last year, which, by adding the increased acreage in this conuty, amouuting to about forty per cent, will make the entire yield about five-eighths of the amount of grain raised in 1872, with a very great increase in the amount of hay saved. Consequently the surplus of grain produced for shipment this year will be sufficient to bring to our county a large amount of money to be used in improving our farms and further developing the resources of the valley.

SOLANO.

Tribune, June 7: VALUABLE SHEEP.—Amos Roberts received direct by mail from Vermont, on Saturday, 630 head of Merino ewes and bucks of the value of $40,000. They were landed at our wharf per steamer Amador, from Sacramento, and immediatly taken to Mr. Roberts' ranch. One of the bucks has already been sold for $700.

SONOMA.

Argus, June 6: CROP PROSPECTS.—A little ride, Lakevilleward, a day or two since, disclosed the fact that the crops in that section are promisiug. Wheat, in particular, is very fine—indeed, so far as our observation has exteuded, all wheat on adobe land is excellent. We, however, witness with regret that mustard is getting the ascendancy on these lands. In 1853 we saw precisely this state of things in the Santa Clara Valley; and some few years subsequent it became master of the situation, on large tracts of the best land in that valley, and it in consequence beoame practically worthless for agricultnral purposes. Especially was this the case on the Guadaloupe river, between Alviso and San Jose. It was so heavy in some sections that a man could not work his way through it, and they fiually turned a misfortune to account by harvesting, grinding and bottling it for market. But the cultivation of mustard is not the most profitable crop for the farmer, and we look upon the encroachment of this noxious weed in our valley with regret. We believe that it would be better to forego a crop of grain for a few years, and out everything for hay, on these adobe lands, in order that the mustard might be cut before the seed ripens. We should suppose that such a plan would extermiuate it in a few years.

STANISLAUS.

County News, June 6: FROST.—A friend informs us that a severe frost was experienced on the San Joaquin river bottoms in this county, on the night of the 30th of May. Corn, and many garden vegetables were injured.

We have since learned, that on the same night, the frost was very severe on both the Stanislaus and Tuolumne river flats.

TEHAMA.

Independent, June 7: The weather dnring the past week has been very warm. The first three or four days the north wind blew quite hard and has had a tendency to ripen grain very fast. Some of the farmers in the southern portion of the county have already commenced harvesting, and as many as can secure sufficient help will commence in the different portious of the county on the first of next week.

TULARE.

Delta, June 5: SEASON AND CROPS.—It cannot be denied that this has been a dry season. No rain has fallen since January. Crops have suffered, and will be light, but in no sense a failure. And even a partial failure might have been avoided, by timely attention to the wants of onr soil and climate. Yesterday we walked out iuto the suburbs of Visalia. We approached a field of grain. It looked splendid; and will yield no doubt an avorage of thirty bushels of wheat to the acre. Some of it will go to forty. There are about fifty acres. Wishing to know the secret of this success, we called on the proprietor. He informed us that the ground had lain fallow last year, had been ploughed deep, and put in early, sowing plenty of seed. No water had been applied to it. It is yet green, and will make as good a crop as could be wished. The ears are large and heavy. So much for good culture in dry seasons.

Tulare Times: CROPS ON LOWER TULE.—The crops on Lower Tule in the vicinity of Rocky Ford are very good this year. Quite a number of the farmers are making preparations to commence harvesting their grain. The yield will be almost as good as that of last season. The grasshoppers did not iujure the grain in this section of country.

YOLO.

Mail, Jnne 5: THE HARVEST.—Woodland has been dull—very dull—during the past two weeks. The streets have almost been barren of farmers' wagons, and business has been simply nominal. The harvest time demauds the attention of the husbandman, and until the wheat and barley are cared for we need expect but little bartering and bustle. Last Tuesday a baud of fifteen hardy men came on the noon train with a veritable roll of blankets, no doubt employed by some of our farmers, else in search of employment in the harvest fields. There is a goodly number of acres to cut in Yolo connty, much of which will produce a good yield, but an equal or greater number that will not give a heavy return for the labor invested.

We do not know how to estimate the crop this year, so couflicting are the reports. An average yield in this county of fifteen bushels to the acre for all land sown would be an exaggeration we are told, for taking the figures for the past ten years, the county has not averaged twenty bushels to the acre, hence fifteen bushels per acre would be two-thirds of a crop—and that we will not have. Ten bushels per acre would be half a crop, and we think that, from the information we gather from all parts of the county, the yield will be to that extent.

SAMPLES OF WHEAT.—Mr. D. A Jackson has left on our table three samples of wheat—one of last year and two of this year's growth. The samples of the present year have stalks about four feet long, and are of the Chili and Club varieties. We took the keruels from one head numbering 88, plump and large. This wheat was not irrigated and is a fair sample of the whole field.

OREGON.

Oregonian, May 31: SANDWICH ISLAND GEESE. A pair of genuine Sandwich Island geese arrived on the bark "Falkinburg," from Honolulu. These bipeds are very dissimilar in appearance to the ordinary wild goose or brant of North America, the color being different and the legs longer. The whole body of the fowl is much lighter and more slender. Another peculiarity these fowls possess is that a portion of their plumage has a strong pungent odor very similar to musk. This peculiarity, however, does not extend to the flesh, which is said to be as palatable and nicely flavored as the wild goose of this country. Captain Forbes states that the fowls inhabit elevated portions of the islands, rarely frequenting these regions, having a less altitude than 4,000 feet above the level of the sea. These geese are very scarce, even in the islands, many persons residing in Houolulu having never seen any of them. On account of being rare they command a good price. The pair brought here are worth $25. Great difficulty was encouutered in getting the pair, a native having been compelled to travel nearly sixty miles to obtain them.

Yamhill Reporter, May 29: RAIN.—Splendid rains have visited these parts during the week, imparting freshness, reviving the drooping spirits of vegetation, relieving the anxious minds of the farmer, and doing a powerful sight of good every way.

SOME CLOVER.—Mr. D. B. Crawford, who lives near this place, brought into this office the other day, a bunch of red clover which measured three feet and four inches in length.

It is a fair sample of a whole orchard full, which groweth on Mr. Crawford's premises, and beats Mr. Bryant's big olover, of which the *Oregonian* made mention about a foot in length. We are rathor inclined to believe that Yamhill oounty oan't be beat at produciug almost anything she tries to produce.

WASHINGTON.

Union, May 21: THE WEATHER.—During the week we have had some thorough, soaking rains, that wet the ground at least a foot deep, and all through the week we have had more or less rain almost every day or night. We have had some pleasant sun-shine, but for the greater part of the time it has been cool and cloudy, though not cold. It has been just the thing to give the grain a good "send off," and will insure a good crop if we do not have another drop until harvest.

FRUIT.—The fruit crops still promise well. Take the whole valley through there will probably be an average crop. For while in some localities there is scarcely any, in others there is a great abundance. Walla Walla peaches, which are so uuiversally praised, will be plenty at home, and we will have enough to snpply one or more unfortunate neighborhoods who live where they cannot be grown to such perfection as here.

SAYS a Georgia paper: "'Judged by the rule that he is a successful agriculturist who knows how to make 'two blades grow where one grew before,' negroes are the finest farmers in the world, for under their skillful culture it is no uncommon thing to see a dozen blades (of grass) grow where one grew before."

GERMAN STEEL is said to be snpplanting the English and American article in the Chinese market, owing to its easier manipulation, which, however is said to be due to its inferior qnality.

Public Breathing Places.

The attention of the Eastern press has been directed of late to the question of economy in laying out public pleasure grounds. We do not speak of the moral and sanitary benefit of such reservations—long admitted and needing no further argument—but of the real monetary economy, as conclusively proved by recent reports of the Park Commissioners of New York, Brooklyn and Philadelphia. In these three cities a large minded, liberal policy has been attended with the most satisfactory results. When millions of money were called for in behalf of the Central Park of New York, the press, while advocating moderate expenditure, derided the idea that anything but pecuniary loss would follow the execution of the project; and the proposed plan was considered to be little better than actual sinking of funds, so far as any return was concerned. But to the surprise of everyone, and far exceeding the most sanguine hopes of the Board, the Central Park has paid for itself ten times over in the improvement of adjacent property and consequent proportionate increase in taxable real estate. The more extravagant the plan, apparently, the higher the ratio of returns.

To review briefly the history of the Central Park: In 1858 the tract of land lying between Fifty-ninth and One-hundred-and-tenth streets, and Fifth and Eighth avenues, now celebrated as the most beautiful of all artificial pleasure grounds, was a barren waste of unsightly rock variedonly by stagnant swamps. A less inviting field for the landscape gardener could hardly have been imagined. To initiate the movement, large prizes $10,000, $5,000 and below—were offered for the best plans submitted to the board. In this competitive examination the leading engineers, architects and landscape gardeners, representing the highest taste and skill of the nation, proffered their various schemes.

That adopted, took advantage of the very difficulties and defects of the site to secure the most pleasing effects. As a work of engineering skill, the park now surpasses anything of the kind. Under the notorious ring management, the department in charge suffered least of all in reputation. Each of the smaller squares was improved during this period, at exorbitant figures; but even with such extravagance and waste the city is more than repaid.

Following the noble example set by the New York commissioners, Philadelphia appropriated large sums in beautifying the Schuylkill and West Philadelphia parks. And now Brooklyn, in perfecting Prospect Park, emulates even the metropolis. In Philadelphia the work was rendered less difficult by the natural advantages of the situation; and the two parks, on opposite banks of the Schuylkill river, are a source of well founded pride on the part of every citizen of that somewhat conceited village.

In New York and Philadelphia, especially, the managers have shown sound sense in affording every possible facility for advancing the cause of athletic sports. The Schuylkill board, freely gave sites for boat houses on the sole condition, that these should be of stone, and required only that the plans shold be inspected before building was commenced. By this policy the park has been ornamented with tasteful and well constructed club houses and, as a matter of course, the boating interests of the city largely promoted. In every way, in each of the three cities we have mentioned, base ball, foot ball, skating and model yacht racing have been encouraged, and in no case has this liberality been taken advantage of to injure in any respect the beauty or utility of the grounds.

Such should be the policy of San Francisco. By far-sighted and liberal management our city should be, from its natural advantages, the finest in the world. With our variety of situation, our commanding elevations and gentle declivities, we have all that could be desired. It only needs the careful attention of the citizens to secure the fulfillment of our wishes. And it is evident that to succeed the work should be mapped out far in advance and so allow for our rapid growth. We are glad that some interest is felt in this cause and that at any rate we are not utterly deficient; but yet it can hardly be claimed that we have reached anything really practical. We still have abundant scope for improvement.

If we look at the matter from a sanitary point of view, our conclusions are still more apparent. By reliable statistics it is shown that in the neighborhood of parks the death rate is much decreased, while for the overworked, stifled denizens of the poorer and crowded districts some refuge from foul air and choking dust is all the more necessary. Truly has it been said that open squares are the lungs of towns. Fresh air is about the only thing that in our artificial state of existence cannot be supplied at so much the cubic foot; but by judicious effort it may be made free as air to all—that is, bad air—even in the most unhealthy manufacturing place.

To refer to a cognate matter, while we are on this topic—the naming of parks. There are two extremes in nomenclature, equally out of taste—the use of such common-place names as Central, South and the like; and the adoption of such high-flown, unmeaning and oft-times unappropriate terms as Linden, Woodlawn, etc. There is no imperative call for imitating the vulgarity of Jersey real estate agents, and there is no necessity for falling back on names befitting railway stations. Let us have either good local names, provided these be well selected, or let us name in honor of our best and most deserving pioneers.

The Park laid out—the Golden Gate—bears a most appropriate and beautiful name, and is now surely but slowly advancing in improvements. After it reaches a state to interest our citizens more than it does at present, more money will probably be spent upon it to the manifest advantage of our city.



YOSEMITE VALLEY, CAL.

Yosemite Valley.

The Yosemite Valley has obtained a world-wide fame for the magnificence and variety of its scenery, and any description of its beauties within our limited space would be impossible, leaving aside the additional objection that the subject is a somewhat hackneyed one, as far as "writing it up" is concerned. The Valley has almost become the Mecca of tourists of the present day, and no one of "traveled" reputation can afford to content himself at home until he has "done" Yosemite. It is to the modern tourist what Rome, the Nile, the Rhine, and the Alps were to tourists a generation ago. In fact, the scenery in this Valley is more magnificent and sublime than in any other part of the United States, or even in Europe, the Alps only being compared to it in these particulars. The illustration shown herewith gives a general view from the Mariposa trail, a favorite point of observation from which to obtain a view of the whole Valley. The prominent landmarks are sufficiently familiar, from the abundance of photographs and pictures extant, to warrant us in omitting any detailed description. A new trail has just been opened, which will afford additional facilities for pleasure-seekers to enter the Valley.

Droughts in California.

It is commonly believed that the seasons in California are changing for the worse, and that they are dryer and colder than they formerly were. It is not unfrequently said that previous to the occupancy of the country by the Americans a drought was unknown, or at least of rare occurrence. We have examined such authorities as are at hand for the purpose of finding out if there is any foundation for this supposition. The records of the Ross colony, in this county, from the year 1812 to 1841, mention frequent short crops on account of drought.

The Ross colony, be it remembered, was on the coast where, within the experience of the present occupants, extending over a period of twenty-one years, no entire failure has occurred. In the year 1826, it is reported, that the entire failure of the crops in the Ross settlement, during this and several subsequent years, reduced the annual contribution of flour, and from that point to the Russian possessions, to thirty thousand pounds. Again, it is recorded that in the year 1835 the crops failed in Ross colony, which caused a scarcity of provisions in the settlement.

Commodore Wilkes, in his account of his visit to Sutter's Ranch in 1841, mentions that there was a failure of crops there and elsewhere in California, on account of the continued drought. These facts prove that the country has always been liable to droughts and that the present system of cultivation, imperfect as it is has resulted in a better proportionate yield, during the twenty years of our experience, than was obtained under the ruder system practised prior to that time.

The records of the Ross colony mention frequent failures or scant crops in a section in which we have always had an abundant harvest. By thorough cultivation, a judicious rotation and under-drainage of wet soils, a failure of crops would be unknown—at all events in the coast country north of the mountains forming the northern boundary of the Salinas Plains, which seems to be the southern limit of the fall and late spring rains not accompanied by heavy southwest winds.—*Sonoma Democrat.*

Remarkable Recuperation of a Blighted Wheat Crop.—About a month ago a thousand-acre field of wheat near Bantas was in such unpromising condition that the owner decided to cut it for hay, and commenced work vigorously. In the course of a few days some two hundred acres had been reduced to stock feed, when it was discovered that under the influence of favorable weather the balance of the field was taking on a new color, and showing signs of healthy growth. The owner now concluded to wait a little before making any more hay. The remainder of his wheat field continued to improve in appearance and now, at the end of four weeks, he finds he has eight hundred acres of very fair wheat nearly ready for harvest, which, at a moderate estimate, will yield ten 100-lb. sacks to the acre.—*Bulletin.*

What These Granges Mean.—Mr. George Kimball, of this city, has been sick and unable to do his farm-work this Spring. Seventeen of the Burrock Granges rigged their teams on Monday and broke up twenty-seven acres of ground and left it ready for planting. There is something practical in that kind of Grange-work, and it has a smack of brotherly kindness in it that would make any half-decent man want to be a farmer and a Granger. Mr. Lamon, an artist of this city, got word of what was going on, took his instruments and went to the spot and succeeded in getting an excellent photograph of the practical demonstration of the Granges.—*Kansas Tribune.*

Alfalfa.

Many persons have doubted whether alfalfa would bear being closely pastured without serious injury. While its superiority over every other kind of grass for mowing, as a hay crop, was conceded, it was feared the large, succulent roots would not bear being trampled and bitten into by stock, and if such were the case, it would not be as valuable and useful to grazers as some other varieties of grass. But this important question is pretty well set at rest in this section of the State. It has been the common practice of those owning fields of alfalfa, for several years past, to turn stock into them during the winter months, horses, cattle and sheep, and keep them eaten down closely, without any sensible decrease or deterioration of the hay crop the succeeding summer being perceptible. We saw an example of this the past season that seemed to us conclusive of the hardy and ineradicable qualities of alfalfa. During the winter of 1872, S. Jewett seeded fifty acres with alfalfa, and the succeeding summer mowed it four times. Last October, shortly after the last mowing he turned on it eight hundred sheep, (sixteen to the acre,) that were kept there nearly until February. When they were taken away the ground was trampled nearly as hard as a brick and left about as bare of any sign of vegetation. We took a view of the field a few days ago, and were surprised to find it covered with a rank growth of alfalfa two feet in hight and nearly ready to cut. The severe test to which it had been put had apparently done it no injury whatever, and in this case it must be remembered it had not had time to get fairly rooted and had not tenacity of a more mature stage of growth. There can be no doubt of its being the most valuable grass that can be grown in Southern California, both for mowing and grazing purposes, and stock-raisers can't do better than to seed down fields of it in the valley to supplement their hill ranges in the periods of scarcity that are now likely to occur every fall. It can be mown two or three times before grass becomes scarce in the open ranges and then pastured a few months without fear of its productiveness being diminished, or until the time when it naturally ceases, which is said to be in twenty or twenty-five years. It is one of the most valuable crops of the farm.—*Kern County Courier.*

Profitable Farming.

There are too many men who put their all in a single venture, and if that fail are utterly used up. There is, perhaps, no business wherein "two strings to one's bow" are so important as in farming. Other pursuits have certain rules which have been founded on experience, and which the shrewd man of business can take advantage of with an almost assured certainty of success. But we cannot do this. We cannot tell what will happen to our crops. Sometimes it will be over dry, sometimes over wet, sometimes we are plagued with swarms of insects, at other times with blights and mold. Against none of these do we get the slightest hint. Trouble never strikes everything alike. Some will succeed. But, independent of all this, the young farmer should never be cast down by misfortune. It is here where so many fail. We knew one, once, who had made by city work some eight thousand dollars. He had originally been brought up on a farm and had always made up his mind to return to it as soon as he had accumulated enough to warrant him in making a start. But he put away two thousand dollars, and invested only six in the farm and stock. It so happened that the next two years found him in terrible losses; but they brought experience, and he fell back on his small reserve, and this, with his new experience, gave him a new and a good start. He now considers himself worth about twenty-five thousand dollars, and is one of the most ardent advocates of the position that farming will pay. *Germantown Tel.*

Useful Information.

Wonders of Nature.—It is a wonderful thing to look abroad over the face of nature, and see how every mineral, vegetable and animal production is constituted, so as to minister in some way to the wants of man—to see the vegetable world silently engaged in extracting mineral matters from the soil, and storing them up for the use of man, and man impelled by instinct, selecting these as his own proper food—to behold not only his food and drink flowing constantly to him through the ever revolving cycle of three kingdoms, but even his most valuable ornaments presented through the same natural channel! It is more than wonderful, it is sublime, to view atom from atom of the whole creation unceasingly changed place, that man, the lord of creation, may be abundantly supplied with all his comforts and luxuries; to see the lilies of the field, and the insects of the earth and air, living and dying for man, yielding up their lives for man's sustenance and adornment. True, "the lilies of the field wake no thought for the morrow," but the unseen finger that opens their petals to the day points them out as the appropriate food to some of the animals whose life or death ministers to man! The blooming cactus not only charms the eye of man, and makes the arid desert blossom as the rose, but it furnishes food to an insect that feeds upon it, and grows and dies to clothe man with the same resplendent dye.

Organized Products.—An organized product can appear only from forces of nature which are the movements of the Divine will. A man can arrange, manufacture, weave, forge, adjust, refine; but he cannot organize as nadoes. He can make machines through which the forces of nature play for cunning ends; but he cannot conjure the principles of life into any mould of his own making. He can start shuttles that will weave a carpet for the reception room of a palace in one loom; but he can build no mill, he can start no laboratory where the warp and woof of a banana leaf can be plaited. He can tell how the sugar is secreted in the veins of the clover blossom, but he cannot make the clover seed; and we might as well ask the wisest scientific man to fashion a world as to create one of the green needles which a pine tree produces by the million, or one blade of grass. Every organization is of God. The atoms of matter are constantly passing from one organization to another. The great periods of the history of the globe are marked by the appearance of higher organizations, in which material elements and forces are confederated into a nobler unity and broader beneficence. Man is the highest of these organizations, and we exist to be bound together in moral affections, and religious harmonies and unities. In the moral world, as well as in the physical one, organizations are the creations of the Divine Spirit.—*Rev. T. S. King.*

A Cement to Stop Flaws or Cracks in Wood of any Color.—Put any quantity of fine sawdust of the same wood your work is made with into an earthen-pan, and pour boiling water on it, stir it well, and let it remain for a week or ten days, occassionally stirring it; then boil it for some time, and it will be of the consistence of pulp or paste; put it into a coarso cloth, and squeeze all the moisture from it. Keep for use, and, when wanted, mix a sufficieut quantity of thin glue to make it into a paste; rub it well into the cracks, or fill up the holes in your work with it. When quite hard and dry, clean your work off, and, if carefully doue, you will sarcely discern the imperfection.

How to Reduce Gas Bills.—First—In lighting your gas, turn tho gas on the meter about one-half, then light the gas, and regulate the lights by the stop-cook that lets the gas into the meter. This prevents the pressure of gas from making the index move so fast. The greater the pressure of gas on the meter the faster it moves, and the larger the gas bill. Second—From the time the gas is usually lighted until 8½ or 9 o'clock, the pressure is the same. After the stores and shops are closed, the pressure is then greater on the meters in use, and the stop-cock should be turned at the meter so as to regulate the pressure.

Transportation of Petroleum Made Safe.—It is proposed by Mr. Jordery to ronder the transportation of petroleum less dangerous by adding an aqueous extract of soap-wart powder, in the proportion of thirty volumes of oil to one volume of soap-wart. The product is consistent and stable. To restore the oil to its original limpidity a few drops of carbolic acid are allowed to drop on the surface, or a large amount of crystallizable acetic acid, when a complete separation follows, the oil floating on the top. The cost would be about $3 per hundred barrels of petroleum.

Ashberium, a substitute for Britannia metal, invented by Ashberry, of Manchester, consists of eighty parts of tin, fourteen of antimony, two of copper, two of nickle, one of aluminum, and one of zinc. For eommon articles lead is to be added.

Whitewash that Will Not Rub Off.—Mix up half a pailful of lime and water; take half a pint of flour and make a starch of it, and pour it into the whitewash while hot. Stir it well, and make it ready for use.

Building Brick Walls.—In olden times hard burnt bricks only were used in building houses. The bricks were first saturated with water before being laid in the wall, and when such walls were torn down, the bricks and mortar had to be separated with a sledge or crowbar. But brick walls built in these days, are chiefly made, not of hard bricks, but of what are called stretchers and salmon, or imperfectly burnt bricks, and most commonly brought dry and warm from the kiln, and laid in the wall iu that state, with mortar made adhesive by the admixture of loam. When the bricks are laid in the mortar, as quick as a flash they will absorb the mortar and prevent cohesion, insomuch that the bricks can be separated from the mortar as cleau as if they had not been laid in it. Bricks of inferior quality will make a tolerable good wall if dampened and laid in good sharp sand mortar, and whoever wishes to put up a good substantial building, should be careful not to let worm and dusty bricks be built in the walls, unless first damped with water.

Economy in Illumination.—It is a singular fact in connection with a gas flame, that the power of the light is the same whether the flame is tested edgewise or flatwise. The conclusion arrived at is, that the use of cylindrical glass chimneys with round jets (Argand) is on the whole the most economical.

Mr. Offert states that in bats-wing burners, though the size of the flame diminishes with the amount of gas consumed, it is not in equal ratio. The light of a large flame, for example, may be equivalent to fifteen candles, while that of two small ones together will be only seven or eight candles, though they burn the same amount of gas as the large flame. This is caused by the complete combustion of the gas in the blue zone of the flame, which gives little or no light in either case, and has more favorable circumstances for its occurrence relatively to the size of the flame in the small than in the large flame.

A Bullfrog Barometer.—A hotel on the Boston road to Melrose, keeps an ordinary bullfrog in a glass jar, half filled with water. Inside the jar is a diminutive ladder, from the bottom of the vessel to the top. Just above the water line is a perch, on which his frogship in dry weather is to be seen sitting perfectly motionless as long as the dry season lasts. Ou the slightest indication of a change in the atmosphere, the frog quits his perch and takes to tho water, returning to the landing only at long intervals to feed upon the flies that are thrown into the jar. This animated weather-gauge never takes any nourishment except in rainy weather.

Good Health.

The Ear and its Treatment.

Let me describe what is probably the most frequent way in which the ear is impared; that is, by the attempt to clean it. It ought to be understood that the passage of the ear does not require cleaning by us. Nature undertakes the task, and in the healthy state fulfills it perfectly. Her means for cleaning the ear is the wax. Perhaps the reader has never wondered what becomes of the ear-wax. I will tell him. It dries up into thin, fine scales and these peel off, one by one, from the surface of the passage, and fall out imperceptibly, leaving behind them a perfectly clean, smooth surface. In health the passage of the ear is never dirty; but, if we attempt to clean it, we infallibly make it so. Here—by a strange lack of justice, as it would seem, which however, has no doubt a deep justice at the bottom—the best people, those who love cleanliness, suffer most and good and careful nurses do a mischief negligent ones avoid. Washing the ear out with soap and water is bad; it keeps the wax moist when it ought to become dry and scaly, increases its quantity unduly, and makes it absorb the dust with whioh the air always abounds. But the most hurtful thing is introducing the corner of the towel, screwed up, and twisting it round. This does more harm to the ears than all the other mistakes together. It drives down the wax upon the membrane, much more than it gets it out. Let any one who doubts this make a tube like the passage, especially with the curves which it posesses; let him put a thin membrane at one end, smear the surface with a substance like the ear wax, and then try to get it out by a towel. But this plan does much more mischief than merely pressing down the wax. It irritates the passages. and makes it cast off small flakes of skin, which dry up and become extremely hard, and these are also pressed down upon the membrane. Often it is not only deafness which ensues, but pain and inflammation, and then matter is formed which the hard mass prevents from escaping, and the membrane becomes diseased and worse may follow.

Washing should oxtend only to the outer surfaee, as far as the finger can reach. It is a bad practice, also, to put cotton wool soaked in laudanum or chloroform into the ear for the relief of toothache. When a child's ear becomes painful, as it often does, everything should be done to soothe it, and all strong, irritating applications should be avoided. Pieces of hot fig or onion should not be put in, but warm flannels should be applied, with poppy fomentation, if the pain does not soon subside.

It should be remembered that constantly covering the ear is adapted to injure it. On the whole, men, in whom the ear is habitually exposed, suffer, if anything, less from ear-disease than women, in whom it is so often covered.—*Popular Science Monthly.*

Useful Effects of Light.

Sir James Wylie, late physician to the Emperor of Russia, attentively studied the effects of light as a curative agent in the hospital of St. Petersburg, and he discovered that the number of patients that were cured in rooms properly lighted, was four times those confined in dark rooms. This led to a complete reform in lighting the hospitals of Russia, and with the most beneficial results. In all the cities visited by the cholera, it was universally found that the greatest number of deaths took place in narrow streets, and on the sides of those having a northern exposure, where the salutary beams of the sun were excluded. The inhabitants of the southern slopes of mountains are better developed and more healthy than those who live on the northern sides, while those who dwell in secluded valleys are generally subject to peculiar diseases and deformities of person. These different results are due to the agencies of light, without a full supply of which plants and animals maintain but a sickly and feeble existence. Eminent physicians have observed that partially deformed children have been restored by exposure to the sun and open air. As scrofula is most prevalent among the children of the poor, this is attributed by many persons to their living in dark and confined houses, such diseases being most common among those residing in underground tenements.—*Scientific Artisan.*

Muscle and Brain.—Nature is a strict accountant; and if you demand of her in one direction more than she is prepared to lay out, she balances the account by making the deduction elsewhere. If you insist on premature or undue growth of any one part, she will with more or less protest concede the point; but, that she may do your extra work, she must leave none of her more important work undone. In primitive times, when aggression and defense were the leading social activities, bodily vigor, with its accompanying courage, were the great desiderata, and then education was almost wholly physical; mental education was littlo cared for, and indeed was often treated with contempt. But now that muscular power is of use for little less than manual labor, while social success of nearly every kind depends very much more on mental power, our education has become almost exclusively mental. Instead of respecting the body and ignoring the mind, we now respect the mind and ignore the body. Both these attitudes are wrong. We do not sufficiontly realize the truth that, as, in this life of ours, the physical underlies the mental, the mental must not be developed at the expense of the physical. The ancient and modern conception must be combined.

A bath in hot sand is the latest discovery offered by a therapeutist of London, as an "infallible cure" for rheumatism. He claims that the advantage of this mode of treament consists, especially, in the fact that it does not suppress perspiration like the hot water bath, but rather increases it; and another advantage it possesses, is that it does not interfere with the respiration of tho patient, as doth the steam bath or Turkish bath. It is asserted that the body can endure the influence of such a bath for a much longer time, and a much higher temperature can also be applied. It can be used for infants, and permits of easy application to a part or to the whole body. If this remedy shall prove efficacious for so serious an ailment, it will indeed be a boon to a large class of sufferers.

Difference in Men.—Two men while walking get well soaked by the rain. One man shakes off the water pretty much as a dog or a duck might do and rather enjoys his shower-bath than not. Another man is taken ill of inflammation of the lungs, and probably dies. The doctors cannot explain the different issues, and they would also be very much puzzled to give a satisfactory account of the pneumonia itself. They will, indeed, generally explain diseases by theories more or less plausible, and practice has been built upon theory, and theory has, no doubt, sacrificed a number of human lives. Yet medicine must have its dogmatic system, and without it medicine becomes little better than empiricism.

M. Aberlin, of Stockholm, places children afflicted with capillary bronchitis or croup in small rooms where there are vessels in which water is kept continually boiling. This treatment, it is stated, if prolonged for days or even weeks, eventually produces a cure. Tho mortality from the disease in Paris, *Les Mondes* says, has been thus reduced from 48 to 18 per cent.

Freckles and Pimples.—A writer in *Rural New Yorker* says, the best way to remove or prevent freckles and pimples is to keep clean; bathe the whole body onco a day at least. Eat wholesome food, as little fat pork and greasy food as possible, plenty of fruit, and do not abuse your person.

Domestic Economy.

About Kitchen Work.

The kitchen, in every well-modeled house, should be a large, pleasant, commodious room, for there the good wife is confined from early morn till noon, and generally part of the afternoon. There she works and toils and tires; no one but herself knowing how much she does. The daily round of breakfast, dinner, supper, settiug tables, clearing them away, washing dishes, sweeping, etc,, etc., is a dull, monotonous life, that she sometimes tires of. But for her there is no reprieve, no putting off or putting by. Every day it must be done. To know how to do her kitchen work thoroughly, easily and well, should be the care of every wife.

Tho first thing every morning should be the taking care of the milk, if cows are kept, and I take it for granted that nearly all our readers keep one or more cows. If the setting and skimming of the milk can be done before breakfast, much is gained. Everything appertaining to the dairy should be kept with scrupulous neatness. Allow no spilt milk to remaiu upon tho shelves to sour and mold. Wash your pans, pails, strainers, skimmers, ladles and clappers always in warm water, with soap; never use hot water for the first washing.

Keep a nice white cloth to wash the dairy utensils with, not using it to wash other dishes. After washing well in soap and warm water, scald once or twice, and turn them round to dry, or put them in a clean place in the sun, where the sand and dust from the street cannot blow upon them. If you use a wire strainer for milk, it will sometimes get filled up, notwithstanding the utmost care is used. When such is the case, take a tooth brush, which you must keep in a convenient place, and where it will never be used for any other purpose, rub some soap upon it, aud clear your strainer by brushing it thoroughly, using warm water. Wash the brush well and dry it before putting it away, that it may keep sweet. This is a much easier way than by scouring with sand, as some do.

The dairy cellar should be small, airy and very clean. The floor should be brick or stone, aud nothing should be kept in the cellar but milk and butter. A cellar where pork, fish, vegetables, etc., are kept, is no place for milk. It will not keep sweet; and if the milk is not sweet, the cream certainly cannot be, aud therefore the butter is spoiled.

In washing all kinds of dishes, *hot* water should never be used first. Take warm water, wash your dishes, whether milk or table dishes, all over, then rinse in hot water, wiping dry. A dish cloth should always be *made*, as much as a dress. Take two pieces of cotton cloth, sew them together on all sides, and you have my idea of a dish cloth, which must be kept nice and sweet and white, never using it for anything but to wash table dishes, scalding it often, and laying out on the grass when convenient. What is more disgusting than to see a woman washing nice white dishes with a little mess of water and a nasty old rag all strung out? I have seen such rags, that I longed to pitch into the stove or pig pen. Have also a nice dish cloth made and put away, to wash your glass and Chiua ware; for the common dish cloth, if ever so good, is not quite good enough for that purpose.

A word about preparing the dishes for washing. Place the large plates at the bottom, the smaller next, and so on. Never put them helter skelter in the sink, and wash them just as they happeu to turn up. Let order characterize every step. Mothers, teach your little daughters how to pick up the dishes in order for washing, and they will never forget the lesson.

Never throw the knives, forks, silver spoons, etc., into the bottom of the sink, or in the pan of dish water to soak, till the handles all come off and they are gone. Lay them on a shelf or put them upon a plate, and when washed wet the handles as little as possible, as it spoils them. Always scour your knives once a day at least, and then at noon. By dipping the blade into hot suds before rubbing, they will polish much easier.

Use a wooden tub, in size according to the family, to wash the dishes in, washing it inside and out, and draining at every using.—*Ohio Farmer.*

Fish as Diet.—Dr. Merryweather says: 'A fish diet is a great humanizer of the tempers of mankind. Its consumption tends wonderfully to render them more kindly to ono another, and consequently tames the passionate disposition to crime. As carniverous animals are always the most fierce and violent, so become human beings who have carnivorous stomachs. Could such stomachs have an occasional respite by the consumption of fish, the world would be all the better for it. I speak as a medical man, and firmly assert that many maladies would be mitigated, and perhaps annihilated by such a process."

Paper for Warmth.—A thin shawl may be made warm by folding a newspapor inside of it. The paper is impervious to the wiud and cold air from outside, and prevents the rapid escape of the warm air beneath it. If you suffer from cold feet on a journey, fold a piece of newspaper over your stocking; this is better than rubbers. If you are cold in bed, newspapers spread under the upper cover, will serve as an additional blanket.

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SAN FRANCISCO:

Saturday, June 14, 1873.

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The Standish Steam Plow.

It will be remembered that this "land-dresser," as it should be called, was exhibited at one of our Mechanic's Fairs, in San Francisco; and it did excellent work at Petaluma, where it was destroyed by accident. It cost too much, and it was very unwieldy.

The inventor finding no encouragement, went to Boston, improved his machine, and exhibited its working at Cincinnati. There, a Louisiana planter gave him a contract to cultivate a large sugar plantation, where he has been two years, doing very satisfactory work, realizing extraordinary crops, and bringing his land-dresser to perfection. The soil of the Poydras estate resembles our adobe. But there are variations which teach him that the cutters require to be changed to suit the different soils.

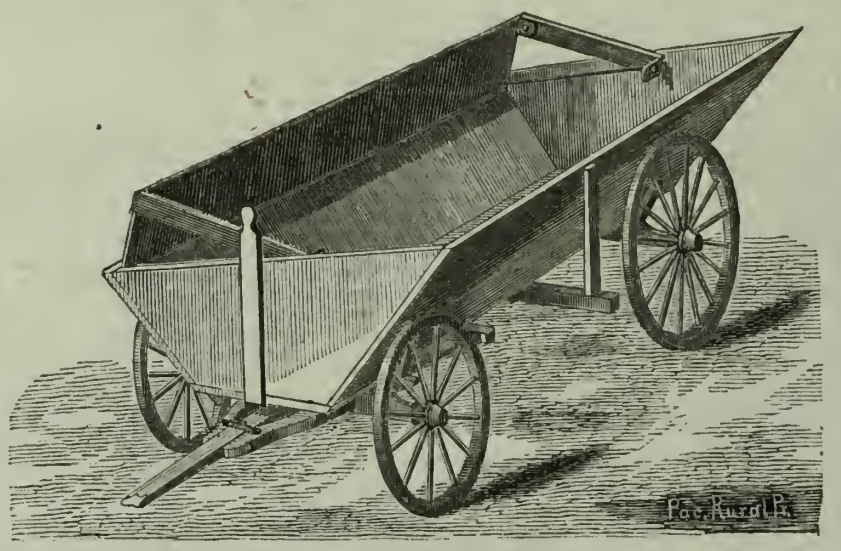
Mr. Standish now makes his land-dresser to cut and dress the land at the rate of seven to fifteen acres a day, according to soil and depth of penetration. It cuts seven feet wide. It costs, complete with engines and boilers, under $6,000, and it weighs fully six tons.

The cutters can be set by the operator at the angle to suit the soil; and there is a contrivance that saves the knives in case of meeting obstructions. This machine goes twelve inches deep, if desired. It does not simply turn over a slice; it pulverizes the whole, from top to bottom. There is a series of upright shafts, on each of which are four Coulter knives, so set that, in revolving, they cut after the fashion of a perpendicular screw, inclined, however, so as to cut thin slices as it moves forward. Every particle is shaken to powder, and all weeds are destroyed. This steam land-dresser is so well adapted to the soils of California that we trust some large operator may be induced to give it a trial.

Ish's Adjustable Side-board.

We call attention to this invention, which has been advertised for several weeks in the RURAL PRESS. By reference to the cut it will be seen that the side-board is secured to iron hinges. The hinges are fastened to the centre of each end of the box by bolts, upon which they work easily up and down. The side-board is bolted to a small plate which works on a loose rivet at the outer end of the main bar of the hinge. The lower edge is secured from sliding beyond the edge of the box by a small rod, which works easily through a hole in the inner end of the main bar. Pull the lower edge of the board inward till it passes inside the edge of the box, and it slides down inside the wagon, entirely out of the way of the spout, thus securing it from danger of being broken or split. When the box is full, and the loader ready to get ont, the driver takes hold of the hinge at the forward end, and the loader at the rear end of the wagon, and raise the board to its place. The straw resting on the side-board, which lies in a slanting position, inclines to push the lower edge outward to its position, as it is being raised up. The head on the small rod prevents the lower edge from being pushed outward beyond the edge of the box. This enables the farmer to haul more straw at a load, without the least danger of its sliding off while passing to the stack or thresher, than it would be possible to haul without a side-board.

Let alone hauling a bigger load, the amount of grain saved will more than repay the farmer for the expense of these side-boards. It is unnecessary to call attention to the loss of grain sliding off the lower side of the wagon; all who have been in the harvest field have seen this; but the adjustable side-board prevents this, and none can feel the necessity of its use more than the farmer with short crops.



ISH'S ADJUSTABLE SIDE--BOARD.

Either a Blunder or a Lie.

The PACIFIC RURAL PRESS of May 31st, published a lot of State Items, copied from interior papers, and under the heading, "Los Angeles" copies an article from the *Transcript*, May 14th, to the effect that we have had no rain since the 18th of February, that there will not be as much barley and rye threshed as there was seed sown, that much of the crop is not even fit for hay, that many farmers are completely ruined and are offering their lands at a sacrifice in order to pay their debts.

As there is no such paper as the *Transcript* published in this county, nor anywhere in Southern California as far as we know, we conclude that the above slander on the farmers of this county is only a blunder of the printer in putting the article, intended for some other county, under a "Los Angeles" head. If our inference is correct, we call upon the editor of the PACIFIC RURAL PRESS to correct it with a suitable apology. If the article is intended to apply to this county or to any portion of it, we denounce it as an outrageous falsehood and a mischievous slander. The crops of this county are above the average, and our farmers are hopeful and encouraged. The yield of barley from thousands of acres will be above that of last year.

The gentlemanly editor of the Los Angeles *Express*, favors us with the above. The article was copied from the *Transcript*, in which it had the following head: "Correspondence of the *Transcript*, Anaheim, May 14, 1873."

We always preserve our copy, that in case of any accident or "blunder" or "lie," that we can refer to our authority; and we have it in this instance.

So far from any desire to misrepresent the condition of soils, crops or climate of Los Angeles, or any other county, we are always disposed to present the truthful and sunny side; and nothing can give us greater pleasure than to know that the crops of Southern California are good this year, and that the prospect is "above the average."

In making up our notes weekly, we give the names of counties, and the names of papers that publish them, whether in the same county or not.

A New Enterprise.

A few weeks ago, while passing up Market street, in this city, our attention was attracted by a crowd of persons in front of 727, next door to Bancroft's building, and upon investigating the cause of the gathering, we found that the Keeler, Hine & Thomas Company, of New York, had opened a store of their beautiful wares in the building, and that the crowd was merely a congregation of sight-seers. We entered the store, and found a large collection of statuary, fountains, vases, aquariums, and a number of other styles and kinds of ornamental goods, which our Coast is greatly in need of. All of these articles are made of metal, and beautifully finished, so as to look either like marble-work or real life, as occasion requires. While examining these articles we could not help picturing to ourself our future palatial residence, which we expect to build, when the PRESS shall have made us wealthy. These two large and beautiful mastiff dogs we will place on either side of the gateway, thinks we, and this fountain, with the little boy holding the nozzle, will be just the thing to place in the center of the yard. Yes, and how nice it would be to buy "Captain Jack and his dog" and place them just in front of the house. The ferocious appearance and threatening position of the noble savage would be a splendid protection from burglars at night and beggars by day. Yes, thought we, we must have "Captain Jack and his dog." Thus we went on theorizing and building air-castles, and furnishing our front yard and spacious grounds, when we were accosted by Capt. J. M. Keeler, the affable gentleman in charge of the store, in whom we recognized an old-time friend. After showing us all of the different styles of ornamental goods, he led, or rather directed, us to a box-shaped arrangement with a long handle sticking out of it. This, said the Captain, is the celebrated Sluthour Pump, formerly known as the Eureka Pump. This latter name attracted our attention, as we had heard of the wonders performed by the Eureka Pump. Upon inquiry, we found the reason why the name was changed was that the world is full of "Eurekas," but was very deficient of "Sluthours." Besides, Mr. Sluthour was the inventor, and the pump is known by that name in the Eastern States. This pump is really a little wonder. It throws more water with less exertion than any other pump we have ever seen. Last fall, when the foundation of the Niantic Hotel, on the corner of Clay and Sansome streets, was being laid, a small pump of this pattern was used to remove and keep out water from the excavation, and during the entire period that it was in use it was surrounded by a large crowd of observers, all of whom expressed their surprise at the remarkable capacity of the pump and the very small amount of power required to operate it. As a farm pump, mining pump, and, in fact, for all uses that a pump can be put to, we consider it a success. The valves are large enough to allow stones, gravel, and any ordinary body that would clog the usual styles of pumps to pass. For this reason it is especially suited as a mining pump. Any person of ordinary mechanical skill can repair it, should it get out of order. From the pump we passed to the Continental Windmill — a new thing in windmills. Besides being quite effective as a windmill, it has the extra attraction of being a model of neatness.

"A thing of beauty is a joy forever."

The Continental Windmill, therefore, would be a joy forever. Capt. Keeler is ready to fill all orders for the above goods, and we expect that many of our wealthy citizens will take advantage of the opportunity and relieve the monotony of their lawns by an occasional piece of statuary.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., June 10th, 1873.

FOR WEEK ENDING MAY 27TH, 1873.

PAPER CLIP.—M. A. Wheeler, S. F., Cal.
MEDICAL COMPOUND OR OINTMENT.—John G. Hucks, S. F., Cal.
SAW SHARPENING AND SETTING MACHINE.—Edward Duffy, Oakland, Cal.
HARROW.—James F. Gazley, Canyonville, Oregon.
APPARATUS FOR SEPARATING QUICKSILVER FROM AMALGAM.—Marcus B. Howard, Ellsworth, Nevada.
GRAIN RAKE AND LOADER.—George S. Dudley, Dixon, Cal.
MUSICAL INSTRUMENT.—Cameron Marsena, Salt Lake City, Utah.
FEEDER FOR QUARTZ MILLS.—Thomas A. Cochrane, Jamestown, Cal.

———"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

Renewed Subscriptions.

We are in constant receipt of letters from our patrons, all along the Pacific border and ranging far into the interior of the continent, inclosing money, and with these ominious words in regard to the future of the RURAL PRESS, "*we cannot do without it.*" Now, if asked the reason for this, we should say that we, in the first place, claim as our patrons the reading class of farmers and mechanics—men who know the importance of keeping fully up with every agricultural and mechanical improvement of the times; ready to take the earliest advantage of every new and improved farm implement; well informed as regards the value and introduction of improved live stock, and their adaptation to localities, etc.

Now, such men know that to drop a paper as the RURAL is to rob themselves of a necessity to their well being and prosperity; hence the trite expression, "we cannot do without it." They see another thing about the paper that, though highly important, escapes the mind of the casual reader; it is the influence we are exerting upon the welfare and progress of California by the dissemination of information abroad relative to our unequalled and unbounded resources.

We are sending to the Eastern States and Europe more than one thousand copies every month, besides the copies sent regularly every week from our mail list. And in addition to these we are frequently informed of the sending abroad of large numbers of copies by subscribers, after having given them a careful reading. In these ways are we doing good work for the Pacific Coast at large, whilst our reading and advertising columns will, we think, bear comparison with the best, there being nothing admitted that can be objectionable to the most refined in morals or good taste. To our subscribers, then, we would say a word: Will you help us to extend our sphere of usefulness by asking your neighbor to take the RURAL PRESS, if only for three months? for then we shall most certainly hear that, "we cannot do without it."

FRUIT ILLUSIONS.—The editor of the RURAL PRESS, who for a year and a half has not been absent from his post for a single week, begins to feel its effects. He is, we are sorry to say, afflicted with optical illusions. Every day he thinks he sees upon his table before him, a small box of delicious cherries, that some kind friend has sent him; but when he attempts to grasp the coveted god send it isn't there. For a considerable time it was only strawberries, then apricots and cherries; but all proved illusory, till now the prospect of his speedy recovery seems gloomy indeed. It is only the editor at 414 Clay street, who is thus afflicted, the proprietors of the RURAL, as ever, are clear-headed.

Salem, Oregon, and the Oregon Agricultural Works.

Salem, the capitol of Oregon, is one of the most beantiful towns on the Pacific Coast. It is situated on the Willamette river, 55 miles above Portland, and contains about 5,000 inhabitants. It possesses the finest and most extensive available water powers to be found on the Pacific Coast, except that at Oregon City, where the entire fall of the Willamette river can be utilized. As a consequence Salem is a mannfacturing town.

The Salem Woolen Mills, Salem Flour Mills, Pioneer Oil Mills, besides numerous factories for doing various kinds of wood work, such as sash and blinds, etc., are located there. The water power is obtained on Mill Creek, formerly a small stream that dried np during the summer months. To remedy this a canal was made in 1858 connecting its headwaters with the Santiam river, at a point 18 miles from Salem, thus supplying a perpetual bed full of water which converted the previous creek into a small river and supplied power for a vast number of factories.

The Willamette University is one of the first schools on the Pacific Coast. The original University or Institute was recently burned down, but not before its place had been supplied by a substantial brick structure, which would be a credit to any State. This building was built entirely by private donations. The old "Institute" was built by the early missionaries, and although 80x40 feet and three stories high, not a nail was nsed in its construction. Every part of the building was put together with wooden pins.

In those days (1843) nails were not to be had at any price. This building was first used as a school for Indians. The college grounds are large and beautiful and promise some day to be the seat of one of our finest schools of learning. Already students go from every part of Oregon and Idaho and Washing Territories to attend its sessions. Salem is regularly and beautifully laid out, is perfectly level and contains some of the finest buildings in the State. Wilson's Avenue (near the center of the town) is large and spacious and upon it the State capitol (the architectural designs for which are now being made in this city) is to be erected.

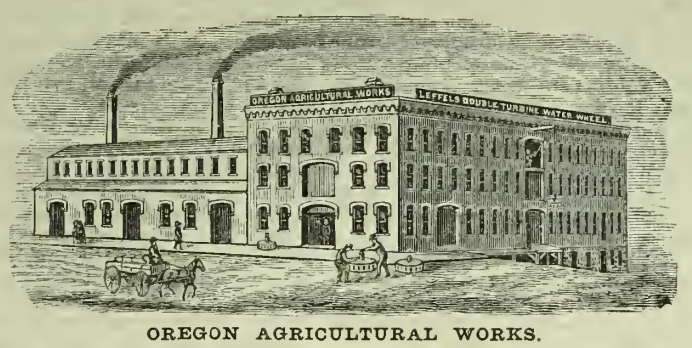
The Willamette river is about three-fourths of a mile wide at Salem, and is a beautiful stream of water; coming from the mountains it flows directly through the Willamette Valley, clear and sparkling with its cool freshness, and finally enters the Columbia river twelve miles below Portland, and thence passes along with it to the sea. Salem is located in the center of one of the largest, surest and most productive agricultural districts on the Pacific Coast. On three sides vast prairies extend, whose soil is unequalled aud whose productions are already known in the markets of Europe. The other side is hilly, yet productive, and we doubt if any country in the world of equal area can rival it in its pasturage and qualities for stock raising.

The Oregon Central Railroad passes through Salem, thence np the river throngh Albany, Corvallis and Eugene City, all of which have in former times been rivals of Salem, both as to the privilege of being the capitol of the State and superior in point of their surroundings.

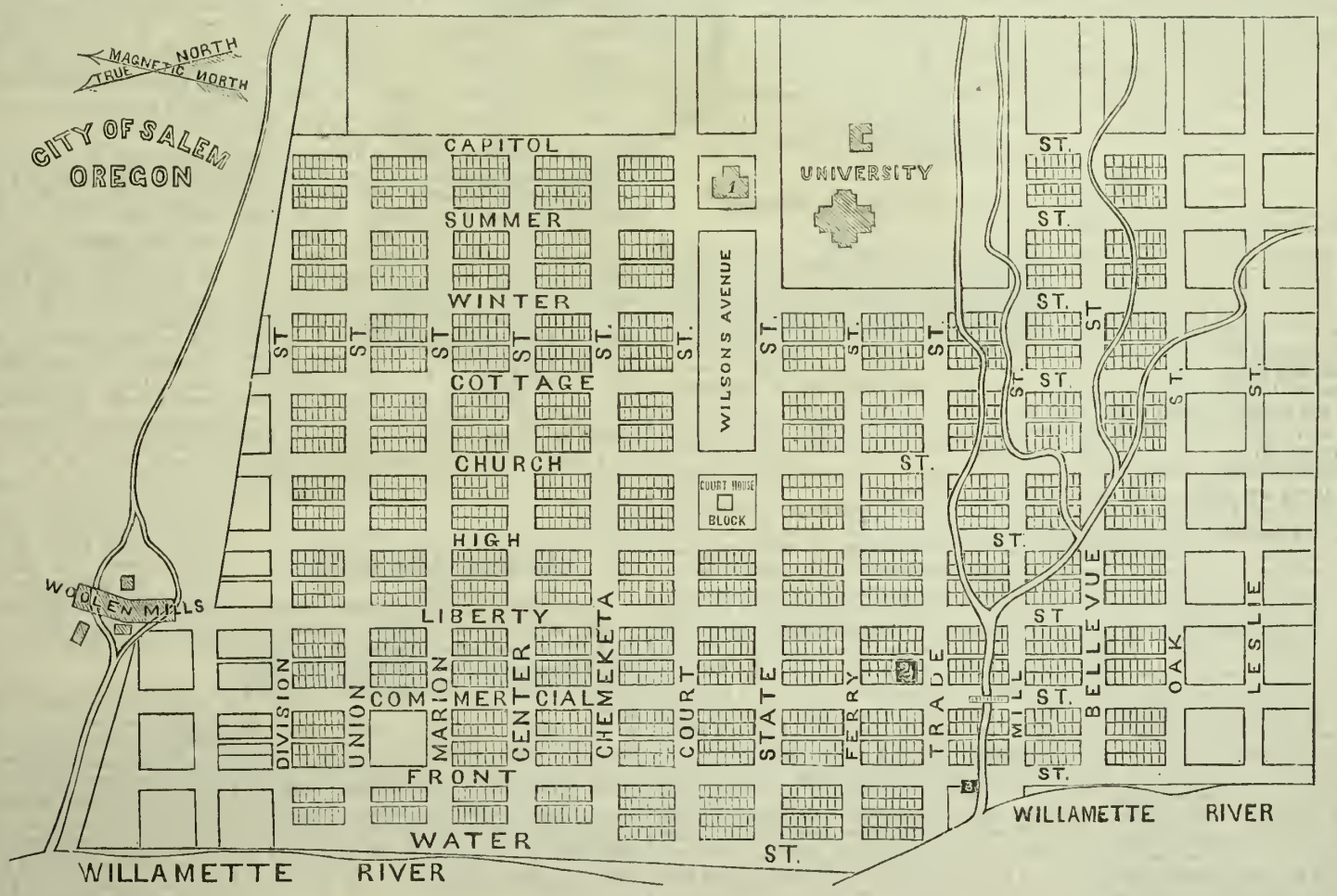
The State Fairs are held near Salem, where spacious aud neatly fitted up grouuds are prepared for its annual season.

The Oregon Agricultural Works, which we herewith illustrate, are located in Salem. They are owned by A. Myers, Esq., sole proprietor on the Pacific Coast of the celebrated Leffell double turbine water wheel. Mr. Myers proposes to manufacture all kinds of agricultnral impliments at his factory, and if possible supply the wants of our Pacific Coast farmers in these articles.

The field is a large one and Mr. Myers fsctory is in a favorable position to accomplish what he proposes. He uses water power, is on the line of navigation and has an abnndsnce of the finest wood, such as maple, oak, ash, etc., equal to any in the world to choose from. We see no reason why his enterprise may not prove an eminent success.



OREGON AGRICULTURAL WORKS.



Farmers' Clubs.

As far as we have heard from, or noticed in RURAL, the following list comprises the Farmers' Clubs of California at present organized: State Farmers' Union; Butte Co. Club; Calistoga Club; Colusa Club; Colusa Co. Grand Island Club; Contra Costa Point of Timber Club; Contra Costa Clnb; Dixon Club, Solano Co.; Danville Club; Fairview, Los Angeles Co., Club; Merced Co. Club; Monterey Co. Club; Napa County Club; Oakland Farming Horticultural and Industrial Club; Richland Club; Sacramento Club; San Gabriel Club; San Joaquin Co. Club; West San Joaquin Club; Santa Cruz Co. Club; Santa Rosa Club; Sonoma and Marin Club, of Petaluma; Sonoma Club; Sonoma Vinicultural Club; Stanislaus Co. Club; Branch, Stanislaus Co., Club; Sutter Co. Club; Vacaville Agricultural Association; Vacaville and Pleasant Valley Fruit Association; Yolo Co. Club; and Yuba Co. Club.

List of Granges.

Probably on account of the secrecy enjoined upon the members of the Granges, in relation to their organization or proceedings after being organized, we have only the following at present to record: Merced Grange; Sacramento Co. Grange; Santa Rosa Grange; Vacaville Grange; Yolo Co. Grange; Suisun Valley Grange; and Salida, Stanislaus Co., Grange; Healdsburg Grange; and Grand Island Grange.

HORTICULTURE.

Treatment of Raspberry Bushes.

Raspberries are, perhaps, more liable to suffer in California, and indeed almost everywhere, from lack of moisture than from any other cause. They like a soil, therefore, which can be made jnst before and during the fruiting season to contain a permanency of rain, or irrigation, without too much stagnation. They will, for the above reason, succeed pretty well in a half-shaded situation; but the fruit in that case never attains that high flavor, so much esteemed in the raspberry. We have, it is true scme highly improved kinds of the raspberry at present in cultivation. The *Fulstaff* is a very fine fruit which has long bearing properties, for it continues longer in bearing than the *Red Antwerp*; appearing to partake in some degree, of the double bearing, or *Everbearing Ohio*. Those who desire raspberries as late as possible, should prune somé of the canes back, to later eyes, or buds, after the bushes have sprouted an inch or two. This forces them to sprout lower dowu the stem. Of course the latest raspberries like liberal manurings; indeed they should have a little aunnally, and no digging over the roots should be permitted.

The raspberry is of a prodigiously prolific character. We have in many cases a score or more of suckers, where only five are ultimately required. Those suckers must be understood to be robbers in a certain sense. Our readers may rely upon it, that every sucker detracts, not so much from the parent stem immediately, but from the virtues of the soil, or comporst around the original stem. Therefore let everyone who can spare time pull away every sucker not wanted, the moment they can fairly handle them, and they may rest assured that they are removing what would ultimately detract from the fruitful bnsh.

The soil should be that of a strong loamy character—a darkish colored soil, rather greasy after rain.

The gooseberry should be rather elevated on the ground to obviate its pest—the mildew. Sand, and plenty of it, is one of the best correctors, with decomposed horse manure, of adobe or clay ground for raspberries. Work the sand and manure among the roots, and down a foot deep or more between the rows, and then give a surface mulching of some loose stuff from the manure pile over the ground.

We would like to see the raspberry culture receive more attention than it has hitherto had in California. Of course judicious irrigation is in this climate highly essentisl for it.

Shelter.

There are few farms and gardens or any places in California so peculiarly situated as uot to need some kind of shelter from one or more points of the compsss, but still fewer which do not need it on every side. Before arranging the plan for a garden, whether vegetable or flower or orchard, it will be neccessary to ascertain what particular winds prevail in the locality, and are most injurious to vegetation, or most productive of discomfort and unhealthiness. Certain districts near the Coast Range and near the ocean, or on elevated inland tracts, are here much afflicted with high gales and will need protecting accordingly.

Masses of trees and shrubs are the best means of shelter for an area more than a few yards across; as they subdue, and, in a manner, entangle the currents of wind. This is much on the same principle as that by which some breakwaters act, which are irregularly rather open and webby, in which the waves can play.

But plantations, in order to fulfill the purpose well, should be pretty dense at the bottom as well as in the higher parts, and the broader they can conveniently be made, the more efficient they will be. If there are hills or even more moderate elevations near, with plantations upon them, they will be, perhaps, the best mesns of shelter in most positions. In a hilly place, the flower and kitchen gardens, and pleasure grounds, may require extra shelter in their immediate neighborhood. This should be by shrubs, or trees of a lower growth, to prevent too much shade. These shelters should be pretty continnous.

Sea breezes and gales occur with such frequency along our coast; and the effects are very uglily seen in the strong leaning or bending from the wind in all trees. This necessitates that protection from these heavy gales should be obtained by the thickest and broadest plantations that can be afforded.

When shall we have the pleasure to see Eucalypti and other suitable trees, largely and thickly planted, not only to break the great force of the winds, but to produce as they undoubtedly do in all countries attraction for desirable rains and moisture?

TOMATOES WITH CLARET.—The following method of preparing tomatoes for the table—we are assured by one who has made the experiment—is snperior to anything yet discovered for the preparation o that excellent fruit: Cut good, ripe tomatoes in slices, and sprinkle over them finely pulverized white sugar, then add claret wine sufficient to cover them.

Tomatoes are sometimes prepared in this way with diluted vinegar; but the claret wine imparts to them a richer and more pleasant flavor, which those who have tried them, fancy resembles the strawberry.

Farmers' Club Lecture.

Friday Evening, June 13th, W. B. Ewer, A. M., Editor of the PACIFIC RURAL PRESS, will address the Oakland Farming, Horticultural and Industrial Club. Meeting at 7½ o'clock, at the University lecture room. The public are invited free.

MR. ELLIS READ, a stirring gentleman, who has won many warm business friends durlng his residence in San Francisco, is now on a business trip to his native England.



Mills Institute Commencement.

An "irregular" reporter of the PRESS invested his shining coin in livery hire, and wended his way over the beautiful hills from Oakland to Mills Institute, to enjoy the recent commencement "exercises," allways known to be of a high standard at that institution. We obtained his verbal report that "all went well," etc., a noble school, fortunately and beautifully located, etc., but his MSS have not yet come to hand. In the absence of the same we will give the essay of a Yolo County farmer's daughter, Miss Eliza G. Brown, of Cachville, which speaks for itself—and the young author also,—as follows:

The Former and the Latter.

It has been asserted that the world is degenerating. There is a certain class of people that are always telling us of the good old times and contrasting the days of our great-grandfathers with the present degenerate ago. As we look back through a hundred years we certainly see that great progress has been mado in civil and religious liberty, and with freedom of thought and speech comes invention and progress in the great worlds of science and art. The application of steam to all kinds of machinery has cheapened every fabric and multiplied comforts and luxnries immeasurably. In the last twenty-five years a thousand million dollars have been expended in the construction of railroads, and yot capital is propertionally greater now then ever before. Look upon some of our immense stationary engines and see how noiselessly and steadily they turn the ponderous wheels, then pass through the mighty mills and see the labor of a thousand men performed by this untiring agent and yet the work multiplies ou every hand. Stand upon a Western prairie at night, the moon silvers a twin-track that glistens far into the darkness, we hear a distant hum that grows upon tho ear and detect a faint spark that brightens as we gaze. Soon the sound increases and the eye of the iron-horse overpowers the moon's imperial gleam. Mark the groaning train with its living freight moving fearlossly ou at the rate of forty miles an hour as into the darkness it rushes, bearing absent friend to their loved ones, bringing good news from afar and tidings from every land. Compare this with the old lumbering mail coach of fifty years ago, moving at the rate of four miles an hour. A journey from Boston to New York was then a greater undertaking than it is now from Boston to San Francisco. Instead of the weekly mail, we now have half a dozen a day. Instead of news from Europe once in three or four weeks, it now comes to us morning, noon and night. Coal, with all its wonderful resources of color, light and heat, has taken the place of tallow candles in our homes, of oil, and darkness in our streets. The steam printing press has superseded the hand printing press, and the number of books and papers has been and is being immensely multiplied. The increase in general information and intelligence has been proportionally great. Wonderful is the progress made in the practical application of science to every department of industry. But it may be said, "All this is admitted, yet morally we have deteriorated." As individuals and as a nation we are constantly growing worse. Those who make this assertion forget that there has been a great increase of population, aud with this an increase of crime, for we know in this world offences must oomo. But is there not a corresponding increase of that which is good? It is true that wars are more dreadful than formerly, but it is also true that they are less frequent, of shorter duration, and more is now done for the alleviation of suffering and for the comfort of the armies than ever before. Hospitals, asylums and works of benevolence at home and abroad have greatly increased.

Chicanery and treachery did not originate in our country, as some would have us believe. There have been Judas Iscariots and Benedict Arnolds from time immemorial. There were things as bad as *Credit Mobiliers* fifty years ago. It is true there is much corruption and wickedness in high places, but so there has always been. Public sentiment is a stronger power now than formerly, and will correct these. We hear no longer of the divine right of kings. The people govern now, and if those whom they choose to rule over them fail to do their duty, they are set aside. Kings and Queens, Presidents and Senate, henceforth will be controlled by the will of the people. One reason that there seems to be an increase of crimo is because the reports come to us with lightning speed. A murder is committed in Lenden, a theft in Paris, a burglary in Berlin, and we have it all in an hour afterwards. That which lost much by time and distance formerly, is painfully present now. We believe the aggregato of good people and of good deeds is greater this moment than ever before, and that good governments are increasing rather than diminishing. It is said that we ladies are given more to frivolity and fashion, to extravagance in dressing aud equipage than our grandmothers were. But could we behold the women of Washington and Adams' day we should find the fashionable ladies wore their top-nots just as high, powdered their hair just as much, draggled as loug trails, dressed and lived just as extravagantly for their times as do the ladies of the present day. It is our private opinion that tho gentlemen are just as open to these charges as are the ladies, and that they not only like to dress and live well themselves, but enjoy seeing their wives and daughters do the same.

No doubt, we go to excess and there is need of reform, but it is not a hopeless case, nor is it at all probable that we are really much worse iu our heads and in hearts then were thoso who are held up as our patterns in the dead age of the past. We think women all through our late war showed themselves just as heroic and self-denying as did the women of the Revolution. Some there are who seem to take take pleasure in seeing the dark side; the disagreeable there is in everybody and everything, but we would rather be sightless till we can see the good as well as the evil. We enjoy the light better than darkness, and we joyfully believe the FORMER was not better than the LATTER.

How False Hair is Obtained.

An interesting account of the method by which false hair is obtained iu Paris is given by *Hearth and Home*. Many persons erroneously believe that most of the curls and waterfalls offered for sale come directly from the hands of young girls, who barter them in exchange for gow-gaws or money, or from convents or nunneries. Such cases are the exception, and uot the rule. Nine tenths of the chignons sold here aud elsewhere are manufactnred out of the coutents of the rag-pickers' basket and bag. Theso indnstrious people search among the refuse of ash barrels for snarled knots of hair combed from the heads of the ladies or servants of the house, and out of this apparently filthy stuff is manufactured elegant braids of every shade and length. The refnse combings are sold for six francs, a killogramme (about two pounds) to tho head rag picker of Paris, who makes this a specialty. In fact he trades in nothing else just now. He sells them in exactly the same snarled and dirty condition, for nine francs a killogramme to the wig makers and hair workers, who sort and clean them, and do them up in fashionable styles and then sell them to tho wholesale dealers, who supply the trade and foreign markets, for Paris hair brings the highest prices. Not ono in a hundred is aware of the varions processes which switches have to undergo before they aro fit for use. The combings are first rolled and mixed in with sawdust to cleanse them thoroughly and remove every particle of grease and mud. Then they are combed out with a sort of iron card, jnst like those they use for carding wool, only the operation has to be carried on with a good deal more care, so as not to split or break the hair, because the longer it is the better it sells, and the higher price it brings. Long hair is becoming scarce; it does not grow fast enough to meet the demand. After the combings are cleansed they have to be pulled out to make them even. A hair is exactly like a conicle tube, much finer toward the top than at the root. As the hairs are all mixed, roots up and roots down, the worker takes a small bunch between his fingers, and rolls them lengthwise, picking them out until he gets them perfectly even, and all with the roots npward. Then they sort these into three different lengths, for switches, braids and wigs; and finally into seven shades. This last operation is the most trying to the worker's patience. Just think! Every single hair has to be taken up by itself and compared with the others. The time and labor thus involved are what makes false hair so expensive. Much has been said about the sale of dead persons' hair, and of course some is always in the market, but it is not the best quality, and is very easily detected. It is quite dry and brittle, and does not keep in curl, so that the dealers do not care to bny it.

By-and-By.

Somewhere down the stream of Time on which we are floating is a beautiful Island called "By and-By." It may be just' before us, beyond the next turn of the river; or we may not find it until the stream disembogues itself into the ocean of eternity. But we all look for it, from infancy to old age, and dream that all evil will be banished when we arrive at the beautiful Island—By-and-By. All day we float down the turbulent stream; the blue cover of heaven burns above us; tho unfathomablo depths yawn beneath us; the mysteries of God and immortality stream in upon us with their awful spleudors, and truths that have confounded the loftiest intellects—truths that iu all ages have roused up the soul from its foundation, baptised it with reverence and kindled it with love—environ us with their intensity, and thoughts of the Island are banished from the mind. But when tho solemn gray of twilight falls around our track, in fancy we see its magical shores, green with trees of beauty, glittering before us like a star over the broad shadows of years, and our longings all return to wander on its fairy banks and listen to tho silver voices of its inhabitauts. And as the rosy flush of day fades in the west, and the watch stars open one after another their holy eyes, we go to rest in the happy belief that the morning sunrise will gild this immortal land, full in our vision; this climate we have sought so long and vainly, and whither fled all the lost summers of our youth which we besought with tears to stay. A land of promise is that By-and-By. In it we have rich possessions, the anticipated enjoyment of which alone renders life tolerable. The past has proven a weary way; the present is full of thorns and beset with danger; but in the golden By-and-By there is recompense for all. There the broken heart shall be healed, and the weary spirit find a rest. Who would sell his birth-right in this land? Though poverty, gloom and desolation environ us here, we have wealth, health and loving friends in that clime. How eagerly we look for that Island. If it were laid down in a chart, no matter how distant, so that we know that it would surely come, we should be satisfied in the prospect. But no Ariadne comes to reveal its labyrinthine secret, and we must rest content in its anticipations, and possess it only in our dreams.

The Angel of the Hearth.

"Come to me, darling; papa's cross tonight," said a young mother, as she extended her arms affectionately to a little girl of three years, who had left her toys and playthings to climb upon her father's knee.

The child hazarded a puzzled look at the dark, stern countenance, and without a glance of reassurance, stole softly to his side. Not a word was spoken, and the gloomy man sat sad and sullen, his mind wholly absorbed with the busy world's excitements. Although a husband and a father, he was evidently in no humor to participate in the pleasures of a "home circle."

The child, not at all discouraged by the forbidding look of her parent, crept gently upon his knee, and placing one tiny arm about his neck, the other glided affectionately over the opposito cheek, while her innocent lips pressed gently the troubled brow. In a subdued breath she whispered, "Nellie loves papa so much, and she drew her little soft hand caressingly down either side of the care-worn face, until they met beneath the heavily bearded chin.

Observe the effect! 'Twas electrical; the stern features relaxed, the sullen gloom disappeared, and the whole countenance assnmed a lively, auimated expression.

The scene was most touching. Words fail to express the exqnisitive beauty of such a picture as the transformed parent drew the littlo girl to his bosom, and pressed a kiss upon the innocent, upturned face, the finer feelings of his manly nature were in his voice as he said:

"No, my child, papa could never be cross with a loving danghter to calm the heart the world has tortured into dospair."

The moral is too palpable to be misunderstood.—*Mother's Journal.*

Young Folks' Column.

Dangers of Neglect.

It happened one day that a young gentleman ordered his horse, having to ride a good many miles. Just before he monnted, a friend, who had been examining the horse's feet, said to him, he thought he ought to send his horse to the smith, as one of its shoes was rather loose. The young man looked hastily at it, and replied, he was in a hurry and could not wait; it wonld do for that day. On his way he had to wait at a wayside inn, when the hostler came to tell him he had better have his horse shod before going farther. He ran out, examined the loose shoe again, and found it no worse than it was in the morning. "I can't wait," he answered; "I'll have it done on my return;" and mounting, rodo off. He had not gone many miles, till, when riding rapidly through a woodland road, a sharp, projecting root of a tree, struck by the horse's foot, wedged itself between the foot and the loose shoe, and brought the horse to such a sudden halt that the man was thrown off and seriously injured; and but for a man who rushed forward and seized the bridle, he might have been killed. How much better it would have been for him if he had taken the advice given him, although it appeared to be a trifle; and how much better if young folks wonld listen to the advice of their elders, and avoid those little faults which seem to be but trifles also, but may end in the most serious calamities.

This is the reason, children, why those who love you mark your little faults, and try to correct them. It is very important they shonld be got rid of while you *are* small. It is easy to do them. It is the time to do it. They see and know the danger, if you do not; and you cannot be too thankful to have them pointed out and pulled up,—pulled up by the very roots, and got rid of.

GIVE THE BOYS A CHANCE.—Yes, Mr. Editor, give us boys a chance. It is better to till a patch of ground, or to take care of fowls, than to gamble on a small scale for marbles, or lounge round the grocery store. Besides, we like to better; we think more, and have more ambition; and we also learn to love work, and love animals.

A pair of rabbits, or pigeons, or hens, or a cossct, will keep the hands and brain busy. Then a little ground to raise strawberries, corn, or potatoes, will help. We try little experiments upon it; determine the best variety of the potato, and decide between Hovey's and Wilson's strawberrics; then with live stock we seo whether to give chicks corn or dough, or learn how much hay will fat a sheep. Thus, by and by we shall know about the science of farming, and all its practice.

Yes, Mr. Editor, by all means give us a chance, for one generation quickly succeeds another, and if *we* do not learn to be useful, pray who will be useful by and by?

ONE OF THE BOYS.

BEAUTIFUL PARLOR EXPERIMENT.—The Boston *Journal of Chemistry* gives the following receipt for that beautiful and instructive parlor experiment known as immitation frost-crystals: Dissolve four hundred and fifty-six grains of nitrate of lead in six fluid onnces of water. If the solution is turbid, filter through paper. Place the solution contained in a glass vessel on the table where it is intended to remain, and drop into it two hundred grains of sal-ammoniac—chloride of ammonium—in long, fibrous crystals. Soon small crystals of chloride of lead will form, and ascend through the denser liquid, presenting the appearance of an *ascending* snow storm. When the lead is all precipitated, tho crystals will begin to *descend* as a genuino miniature snow storm, forming grotesque masses resembling a winter's land-scape. If the vessel containing the crystals is not disturbed, it ofteu preserves its beauty for weeks.

A LITTLE fellow, who had just commenced reading the papers, asked his father if the word "Hon.," prefixed to the name of Mr. P——, a member of Congress, meant "honest!" That little fellow had a mind for investigation.

No man, whether rich or poor, can make or retain a useful position in life without the two valuable habits of punctuality and temperance.

OF the women of the United States, 530 are doctors, 24 dentists, 5 lawyers, and 58 preachers.

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow** speed may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines

embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

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Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,

And a fresh stock of

HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

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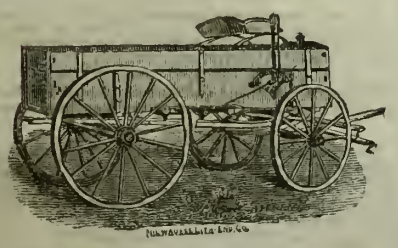
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Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,

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We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

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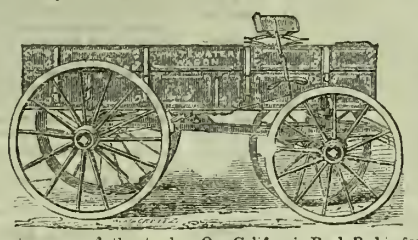
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15v5-3m Sacramento and San Francisco.

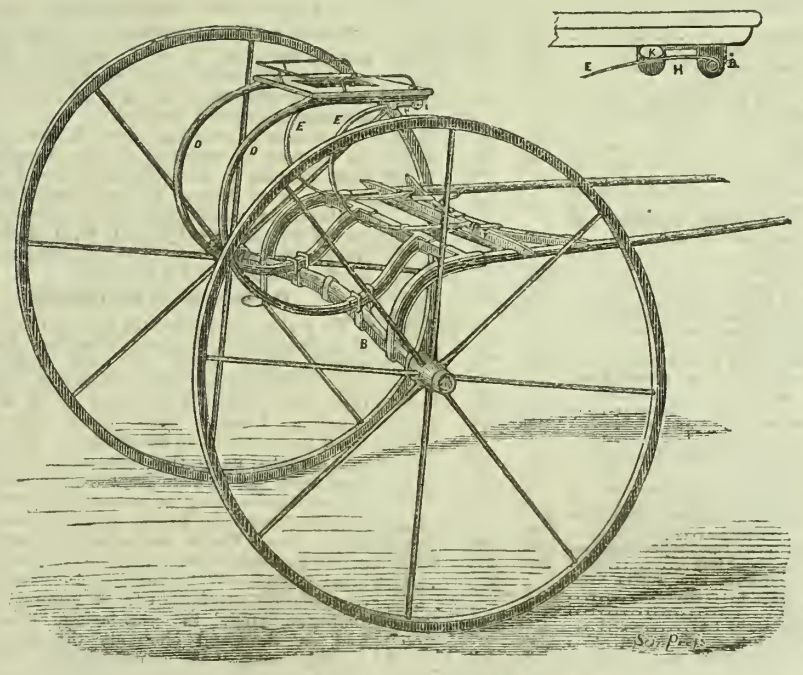
THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50,** complete, according to style. **Iron Axle, $130 to $185,** according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc, without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf



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Pronounced the Cheapest, Lightest, Most Durable, and Easiest Riding Sulky ever offered to the Public.

Orders will be taken from any part of the State of California, and the Sulky sent by Wells, Fargo & Co.'s Express, C. O. D., for $100, coin. If it does not prove to be all that is recommended, it may be returned by prepaying freight, and the money will be refunded.

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A large supply of iron axle header wagons—three different sizes; Spring Wagons, Buggies and Farm Wagons constantly on hand.

All work made from best of materials and warranted.

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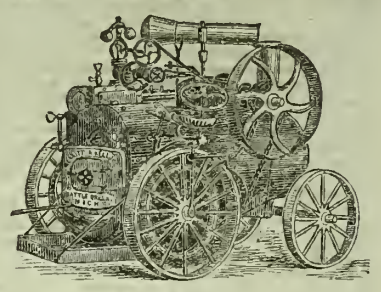
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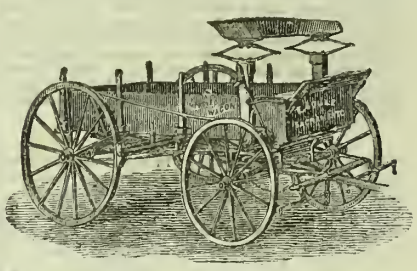
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We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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Portable Steam Thrashing Engines.

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EXTRA PARTS for repairing Harvesting Machinery.

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STRAW FOR FUEL!

A Ton of Straw Equal to a Ton of Wood in Making Steam!

The Patent Straw-Feeding Attachment to Steam Furnaces for using STRAW AS FUEL for THRESHING ENGINES.

MOREY'S PATENT—No danger of Fire—The great expense and difficulty of obtaining wood on treeless plains and valleys overcome.

These attachments can be put on any furnace in the field by an ordinary mechanic. For sale by

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Manufactures of California.

A correspondent of the *Bulletin* has been reading up the ninth census and extracting from a mass of figures those connected with the manufacturing interests of this State. He says the census of 1870 gives us a clear and pretty reliable basis upon which to ascertain the status of California as a manufacturing State, a claim to which she is eminently entitled. The great manufacturing States, in conspicuous order, are New York, Pennsylvania, Massachusetts, Ohio, Missouri, Illinois, New Jersey and Connecticut. Michigan, Rhode Island and Indiana weigh with great pressure in the grand scales, and Rhode Island, though showing less in figures for the State, and if size were taken into account and her figures correspondingly increased, would be comparatively many times greater than any other State as a seat of manufactures. But California stands, in this line, at the head of a very long list of States. Here is her position by the census of 1870:

State.	Product.	State.	Product.
Maine	$79,497,521	Dist. Columbia	9,292,173
Wisconsin	77,214,326	Florida	4,685,403
Maryland	76,595,615	Kansas	11,775,833
N. Hampshire	71,038,249	Louisiana	24,161,905
California	66,594,536	Minnesota	23,110,700
Kentucky	54,625,809	Mississippi	8,104,758
Iowa	46,534,322	Nebraska	5,738,512
Virginia	38,864,322	Nevada	15,870,539
Tennessee	34,362,636	North Carolina	19,021,327
Vermont	32,184,606	Oregon	6,877,387
Georgia	31,190,115	South Carolina	9,858,981
Arkansas	4,629,234	Texas	11,517,802
Delaware	16,791,382	West Virginia	24,102,201

The Lesson.

The lesson from this table is of important bearing. The great tanneries and sawed and log lumber region, and cotton mills of Maine; the immense sawed lumber, meat-packing and flour interests of Wisconsin; the sugar refineries, clothing-houses, cotton mills, oyster packing, etc., of Maryland, and the pride of the East, those large cotton, woolen and worsted mills, boots and shoes and Yankee notions of New Hampshire do not swell their States' aggregate far ahead of California. Kentucky, Iowa, Virginia, Tennessee, Vermont, Georgia, Delaware and West Virginia are looked upon as manufacturing States, but Kentucky, with its Louisville, and the great Bourbon whiskey interests of the interior of the State, and the two Virginias together, with their Wheeling and Richmond, are far behind California, while Delaware's great shipbuilding interest is not one-third as important as California's machine and blacksmith shops.

California Industries.

The following tables show in detail and by counties the industries of California as reported by the Commissioners of the Census for 1870:

Mechanical and Manufacturing Industries.	Establishments.	Hands.	Products.
Agricultural implements	10	68	$118,540
Artificial flowers	2	4	3,500
Bags, other than paper	8	113	501,310
Baking-powders	1	30	64,200
Bellows	1	5	64,200
Belting and hose (leather)	1	14	54,000
Billiard and bagatelle tables and materials	6	44	91,654
Blacksmithing	433	812	1,161,790
Bleaching and dyeing	1	1	1,000
Bookbinding	10	114	171,942
Boot and shoe findings	1	4	8,650
Boots and shoes	40	1,526	2,214,807
Boxes, cigar	1	58	70,000
paper	4	15	18,000
wooden	8	195	368,778
Brass and copper tubing	1	3	13,500
founding and finishing	6	97	174,006
Bread, cracker and other bakery products	74	320	1,185,820
Brick	34	610	407,800
Brooms and wisp-brushes	13	73	164,885
Brushes	1	3	6,500
Butchering	8	21	207,368
Carpentering and building	266	663	1,391,163
Carpets, rag	1	4	5,100
Carriages and wagons	84	640	1,309,443
Cars, freight and passenger	3	80	329,500
Cement	1	8	30,000
Charcoal	2	12	18,239
Chromos and lithographs	1	4	8,500
Clothing, men's	108	528	1,090,270
women's	69	229	738,339
Coffee and spices, roasted and ground	13	92	417,715
Coffins	11	34	100,332
Collars and cuffs, paper	1	12	22,350
Confectionary	18	65	269,612
Cooperage	51	259	474,444
Copper, milled and smelted	2	7	10,200
Coppersmithing	4	16	51,360
Cordage and twine	2	162	850,000
Cordials and syrups	1	2	2,500
Curled hair	3	52	63,000
Cutlery	4	16	33,775
and edge tools, (not specified)	3	5	3,492
Dentistry, mechanical	20	24	60,250
Drain-pipe	1	4	26,858
Drugs and chemicals	21	190	617,870
Engraving	10	31	56,950
and stencil-cutting	3	4	5,000
Explosives and fireworks	2	14	37,000
Feathers, cleaned, dressed and dyed	1	1	2,500
Files	2	13	20,160
Fish, cured and packed	2	5	6,800
Flouring and grist-mill products	115	690	9,036,886
Fruits, canned and preserved	1	20	202,000
Furniture (not specified)	48	285	624,752
Gas	10	240	1,356,754
Glass, cut	2	6	13,000
Gloves and mittens	6	90	62,045
Glue	2	21	78,300
Gold and silver, reduced and refined	2	35	375,000
Grease and tallow	2	12	29,000
Gunpowder	3	75	526,487
Gunsmithing	17	24	28,490
Hair-work	4	9	11,780
Hand-stamps	1	2	3,000
Hardware	1	2	1,180
saddlery	4	7	12,400
Hats and caps	16	62	120,140
Hoop-skirts and corsets	3	16	20,277
Instruments, professional and scientific	3	6	22,500
Iron, forged and rolled	2	129	370,000
bolts, nuts, washers and rivets	1	7	15,180
castings, (not specified)	27	647	1,159,841
stoves, heaters, and holloware	4	80	190,120
Ivory work	2	3	4,100
Jewelry (not specified)	29	173	498,780
Lead, pig	1	15	200,000
shot	1	12	277,000
Leather, tanned	43	207	751,046
curried	27	55	423,878
Lime	9	130	179,050
Liquors, distilled	16	75	1,099,207
malt	96	389	1,641,174
vinous	139	752	602,553
Locksmithing and bellhanging	7	18	24,925
Looking-glass & picture frames	9	34	151,660
Lumber, planed	122	407	1,052,850
sawed	291	4,077	5,227,064
Machinery, (not specified)	29	404	1,622,117
railroad repairing	1	80	455,000
steam engines and boilers	17	585	1,737,700
Malt	4	20	130,800
Marble and stone work, (not specified)	38	216	332,365
Masonry, brick and stone	10	23	30,700
Matches	6	55	253,896
Meat, packed pork	6	33	259,850
Meters, gas	1	5	10,000
Millinery	23	83	103,338
Millwrighting	4	4	5,773
Mineral and soda waters	17	69	217,845
Molasses and syrup (principally sorghum)	1	4	4,000
sugar, refined	3	255	3,904,045
Musical instruments, pianos and materials	3	3	10,800
Mustard, ground	1	2	1,075
Oil, fish	2	5	48,250
lubricating	1	2	7,500
Painting	42	126	241,684
Paper, (not specified)	2	28	89,700
Patent medicines and compounds	1	3	3,000
Patterns and models	2	17	25,700
Paving materials	1	6	9,600
Pencils and pens, gold	1	1	2,000
Perfumery and fancy soaps	1	2	3,400
Photographs	26	65	86,418
Pipes, tobacco	1	1	900
Plaster, ground	1	1	560
Plated ware	1	1	1,900
Plumbing and gasfitting	12	44	104,300
Preserves and sauces	4	32	83,150
Printers' fixtures	1	3	700
Printing and publishing, news paper	50	548	1,523,446
job	32	299	755,893
Pumps	5	12	25,749
Quartz, milled	114	676	3,405,778
Quicksilver, smelted	4	256	4,027,680
Roofing material	2	15	24,053
Saddlery and harness	187	693	1,068,452
Safes, doors and vaults, (fire-proof	8	64	191,500
Sails	8	27	75,671
Salt	8	84	48 150
Ground	2	25	92,000
Sash, doors and blinds	23	394	787,0tu
Saws	1	36	66,000
Ship building, repairing and ship materials	21	82	254,520
Shoddy	1	10	13,500
Silver ware	2	26	92,400
Small beer	2	3	3,300
Soap and candles	21	80	557,451
Stereotyping and electrotyping	1	1	2,200
Stone and earthenware	6	17	18,678
Straw goods	3	69	60,700
Tin, copper and sheet-iron ware	133	368	782,224
Tobacco, chewing, smoking and snuffing	3	24	57,800
Cigars	88	1,834	1,909,947
Trunks, valises and satchels	11	141	280,375
Type-founding	3	57	50,152
Umbrellas and canes	2	12	71,000
Upholstery	11	42	90,550
Varnish	1	2	2,075
Vinegar	3	13	61,115
Washing machines and clothes-wringers	2	3	5,000
Watch and clock repairing	15	16	22,020
Wheelwrighting	213	458	655,495
Willow-ware and rustic ornaments	2	6	9,300
Wire	1	3	9,000
Wire-work	4	32	142,100
Wood, turned and carved	3	6	12,800
Woolen goods	5	659	1,102,754
All industries	3,984	25,392	$66,594,556

Counties.	Establishment.	Hands.	Products.
Alameda	120	648	1,163,914
Alpine	10	20	22,752
Amador	89	384	1,588,494
Butte	45	286	977,937
Calaveras	246	569	606,159
Colusa	32	78	252,743
Contra Costa	35	63	107,835
Del Norte	29	65	203,415
El Dorado	62	259	452,876
Fresno	7	113	520,200
Humboldt	35	316	805,272
Inyo	27	104	347,488
Kern	11	71	104,894
Klamath	8	137	251,419
Lake	22	153	260,290
Lassen	10	16	22,400
Los Angeles	79	621	725,038
Marin	25	395	322,896
Mariposa	18	110	264,226
Mendocino	85	876	1,006,464
Merced	5	13	66,437
Mono	8	29	74,625
Monterey	35	93	197,505
Napa	4	16	139,510
Nevada	137	597	1,293,809
Placer	66	344	510,595
Plumas	28	112	349,861
Sacramento	182	1,159	3,964,616
San Bernardino	20	104	174,350
San Diego	5	23	57,807
San Francisco	1,223	12,377	37,410,829
San Joaquin	149	455	1,074,897
San Luis Obispo	10	34	97,890
San Mateo	75	283	346,268
Santa Barbara	24	105	90,007
Santa Clara	171	761	2,332,809
Santa Cruz	76	704	1,646,149
Shasta	10	119	192,518
Sierra	42	200	574,875
Siskiyou	47	108	247,665
Solano	101	303	811,297
Sonoma	234	954	1,478,813
Stanislaus	18	40	218,234
Sutter (a)	—	—	—
Tehama	11	141	817,004
Trinity	22	50	64,232
Tulare	14	60	125,200
Tuolumne	25	105	267,085
Yolo	103	306	635,128
Yuba	114	512	1,337,831
The State	3,984	25,392	66,594,556

(a) Sulter county is returned as having no manufactures.

Taking the State through we find that San Francisco county is by far the largest producer, Sacramento next, and Santa Clara next. The greatest industry ontside of mining, agriculture and railroads in the State is reported the production of flour, grist, etc., from mills, while sawing lumber, refining sugar, milling quartz and making boots and shoes, are also reported as industries of considerable importance. It must be distinctly understood, in respect to the census, that it was taken for the year commencing June 1, 1869, and ending May 31, 1870.

Largest Manufactured Product.

There have been some disputes as to the importance of various manufactures in the United States. David A. Wells, in his report of 1869, contended that leather and its manufactures was the largest. The census report shows that he was mistaken; according to it the relative rank is as follows:

Whole manufactured product of U. S.	$4,232,345,442
Iron and its manufactures	628,303,885
Cotton, Woolen and Worsted Goods	611,495,177
Flouring and Grist Mills	444,985,143
Leather and Boots and Shoes	340,881,727
Lumber	252,339,029
Sugar and Molasses	119,789,097
Liquors, malt, distilled and vinous	94,123,014
Tobacco, Cigars and Snuff	71,622,044

As between the products of wool, cotton and leather, the order of precedence is leather and products, wool and products, cotton and products, but the exact figures cannot, in the nature of the wool and cotton statistics, be furnished separately for those two items in all their manipulations.

National Agricultural Congress.

From the Indianapolis *Daily Sentinel* of May 29th, 30th and 31st, forwarded to us by the Secretary, Chas. W. Greene, we learn of the proceedings of the National Agricultural Congress, convened in that city on the last days of May. The *Sentinel* says: The membership is made up of delegates chosen by societies in the different sections of the United States, evidently selected with strict reference to ability and fitness for the position. The personnel of the convention is of a high order, betraying little or no indication of political elements, but representing largely the class of solid, practical farmers, well sprinkled with men of thought and science from the agricultural schools and colleges of different States and counties.

The early proceedings were characterized by an address of welcome to the delegates by Gov. Thomas A. Hendricks, followed by addresses from Mayor Mitchell and President Southerland, which were responded to on the part of the Congress by Genl. W. H. Jackson, of Nashville, Tennessee. The following are only brief extracts from his address:

The Inception of the Congress.

We met at St. Louis and formed this National Agricultural Congress. That was the first meeting—you may say the first working meeting—of the National Agricultural Congress. I regarded it as a great meeting, fraught with great importance to all the interests of the country. The reason that actuated us to the formation of this organization was to have greater unity and concert of action among the class whom we thought had not their voice in the agairs of the State and nation. There was a lack of concerted action and cohesiveness, which exists among all other classes. We have only to witness the combination of capitalists in mining and in manufacturing, in sea-faring, commerce, and a thousand channels through which capital seeks to accumulation. We will here say that the masses, the great masses of the people, the farmers of this great land, the producers of the food and of the raw material which manufacturers and machinery work into such usefulness, have failed to exert a permanent influence, and all stake it for a lack of unity of conceited action. We regard that these associations will enable and dignify this most ancient and venerable calling, for it will have the effect to bring about a wider diffusion of knowledge and increasing the general and individual prosperity of our citizens.

Objects of the Organization.

And in proportion as we can have a wider diffusion of knowledge and elevate that class to which we belong, we believe we will add to the increase of the products and the general prosperity of the whole country. Besides, these national associations will have the effect if there be lingering prejudices and asperities engendered in the times past will have the effect to smooth them over and change them into the amenities of civilization. That is one of the grand ideas of my mind, it is one of the most pleasant ideas for my mind to dwell upon that in our meeting the whole sections of this broad land consult together as to the interests of this country, and here let me disclaim distinctly as I am familiar with the origian and inception of this movement was organized to accomplish unity and concert of action which was very desirable, but while such is the case, I wish it distinctly to disclaim that its object was for the purpose of crushing or oppressing any interest in this broad land. We recognize all as important in this place, but we wish simply to claim attention that which is of paramount importance to our class, to the great interest which we represent.

Future Prospects.

As I say, there will be a wider diffusion of knowledge growing out of the reported practical experiments, all these minor societies, all the State societies, will be tributary to this grand confluence of all the National Agricultural Congress will be a receptacle of experiments and results which will flow from this grand focus all throughout the confines of our great country, and it will have the effect of spreading through the country more rapidly improved, implements and methods of recuperation, fertilization and culture. These, gentlemen, are a number of the ideas we have in coming together. Members of this body, let prudence, caution, wisdom guard all your deliberations. We regard the railroad interests of the country. We regard it rather as the interest upon which agricultural interest hinge. They are so intimately connected that one can not be well drawn from the other without great detriment to the other. Therefore we want to see the railroad interests cherished in every way. But, gentlemen, we feel that they, as well as the middle men who are handling the produce, are often getting greater measures of the profits that are earned by the agricultural class than they are by right entitled to. We simply ask and endeavor to seek a fair line as between the true producer and the dealer. Having found that line, we dare maintain our right. That is the idea. We want nothing but a fair line; and we should proceed in such a cautious way, not to do anything imprudent, but to find what the fair thing is and do it.

Second Day.

The feature of the second day was the introduction and reading of reports and resolutions and their discussion, of which the report of the committee on transportation was principal; but those on horticulture, legislation and agriculture were prominent.

Agricultural Colleges, the eight hour law and internal improvement were also ably discussed.

Third Day.

The last day's session of the Agricultural Congress assembled at nine o'clock, and was called to order by Mr. Smith, of Georgia, who presided until the recess, and proved himself an expert President by rushing through the business of the morning in an expeditious manner.

The finishing touches to the proceedings of the Congress consisted in amendments to the Constitution; votes of thanks all around; efforts to rescusitate the Agricultural College report; delegates are taken around the city and astonished as a matter of course; speeches of Col. Peyton, President Jackson, Secretary Green, Treasurer Pool and others. And then the adjournment.

Diversified Farming.

It is remarkable that the majority of farmers in this county should depend solely upon the wheat crop for profit, when their soil possesses so many other elements of wealth, not to mention our advantages of location within two hours of a market which is itself connected with the markets of the world. It is a fact well known, and it is admitted by the farmers themselves, that there is but little profit in the long run in constant wheat culture. There are many contingencies to which the crop is liable. Excessive rains are not less fatal than a lack of rain. The market is below $2 per cental (the lowest price which affords the grower a respectable profit) as often, in fact oftener, than it is above that figure; and then comes the risk of a scarcity of tonnage as last season, sack monopolies, and many other lesser exactions which are burdensome on the wheat culturist. We do not wish to be understood as discouraging the growth of wheat which has added much to the wealth of our State, but simply to protest against it as a specialty in this section, where there are so many other more profitable and less exhaustive crops which may be grown to advantage. This is not all theory, for we are in possession of facts to prove it. A gentleman owned two places: Upon one, worth $20,000, he cultivated wheat for four successive years. Upon the other, worth $1,500, he made butter and cheese. From the dairy farm he cleared $6,000 a year, while upon the valuable wheat farm he lost money for three years, making something the fourth year, not enough, however, to offset his previous losses, which were made up from the dairy farm. Here is another: A man sold a cattle-range convenient to market, a few years ago, for $500, and purchased a better place. He has made nothing except the increase in the market value of his land, while his old cattle-range has netted his purchaser, a careful dairyman, $3,000 a year.

The skinning process may succeed one year in five; and then the elements, the markets and the misfortunes of the rest of the State, must combine in its favor; while the farmer who practices a more diversified system of husbandry secures a steady income, without robbing his soil, nor does he thereby lose the extraordinary profit which sometimes falls to the share of his more thriftless brother from an extraordinary combination of fortuitous circumstances. —*Sonoma Democrat.*

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Wheat Market Quotations Compared.

1873.	S. F. Liverpool. SHIPPING.	TELEGRAPH REPORTS*	MAIL REPORTS†	Dif. Bet. Mail & Tel	S. F. & Tel.
Mar 20....	1 80	2 77@2 81	2 81@2 89	6	99
" 31....	1 80	2 75@2 79	.....	.....	97
Apr. 1....	1 80	2 73@2 79	2 75@2 91	8	96
" 2....	1 80	— —@— —	.....	.....	96
" 3....	1 82½	2 71@2 81	.....	.....	93½
" 4....	1 82½	2 71@2 81	2 75@2 91	7	94½
" 5....	1 82½	2 71@2 81	.....	.....	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 76@2 82	2 79@2 67	10¼	96½
" 9....	1 82½	2 76@2 82	.....	.....	96½
" 10....	1 80	2 76@2 82	.....	.....	99
" 11....	1 80	2 76@2 82	2 97@2 97	9	99
" 12....	1 80	2 76@2 82	.....	.....	99
" 14....	1 80	2 76@2 82	.....	.....	99
" 15....	1 80	2 76@2 82	2 83@2 95½	9	99
" 16....	1 80	2 76@2 82	.....	.....	99
" 17....	1 81¼	2 76@2 82	.....	.....	97¾
" 18....	1 82½	2 76@3 82	2 81@2 93½	3½	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 76@2 82	2 85@2 98	12½	96½
" 23....	1 82½	2 76 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	2 89@3 02	10½	1 02½
" 26....	1 82½	2 83@2 87	.....	.....	1 02½
" 28....	1 82½	2 83@2 87	.....	.....	1 02½
" 29....	1 82½	2 85@2 89	2 87@3 00	11	1 04½
" 30....	1 82½	2 85@2 89	.....	.....	1 04½
May 1....	1 82¼	2 85@2 89	.....	.....	1 04½
" 2....	1 82½	2 85@2 89	2 85@2 98	8	1 04½
" 3....	1 82½	2 83@2 87	.....	.....	1 06½
" 5....	1 82½	2 83@2 87	.....	.....	1 06½
" 6....	1 91½	2 83@2 87	2 91@3 03	12	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 00	2 85@2 89	2 95@3 03	12	96
" 10....	1 90	2 91@— —	.....	.....	1.01
" 12....	1 90	2 91@— —	.....	.....	1.01
" 13....	1 90	— —@— —	.....	.....	.....
" 14....	1 90	2 97@2 97	.....	.....	1.05
" 15....	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	.....	.....	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.03½
" 19....	1 90	2 95@2 97	.....	.....	1.06
" 20....	1 90	2 93@2 97	.....	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.05
" 22....	1 90	2 93@2 97	.....	.....	1.08
" 23....	1 82½	2 91@2 95	.....	.....	1.10½
" 24....	1 82½	2 91@2 95	.....	.....	1.10½
" 19....	1 80	2 91@2 95	.....	.....	1.13
" 27....	1 80	2 91@2 95	.....	.....	1.13
" 28....	1 80	2 91@2 95	.....	.....	1.13
" 29....	1 83½	2 91@2 05	.....	.....	1.10½
" 30....	1 82½	2 95@2 97	.....	.....	1.14½
" 31....	1 82½	2 95@2 87	.....	.....	1.14½
Jun. 2....	1 82½	2 95@2 97	.....	.....	1.14½
" 3....	1 82½	2 95@2 97	.....	.....	1.14½
" 4....	1 82½	2 95@2 97	.....	.....	1.14½
" 5....	1 80	2 99@3 03	.....	.....	1.21
" 6....	1 80	2 97@3 03	.....	.....	1.20
" 7....	1 80	2 97@3 03	.....	.....	1.20
" 9....	1 80	2 97@3 03	.....	.....	1.20
" 10....	1 77½	2 97@3 03	.....	.....	1.22½
" 11....	1 77½	2 97@3 03	.....	.....	1.22½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Olub are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegrapb to the Associated Press and as published in the "Mark Lane Express," In all cases the "Mark Lane Express" sbows higher prices than the telegraph.

S. F. Market Report.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

San Francisco, June 11, 1873.

The new harvest year is now upon us, the new Wheat and Barley have already begun to come in, and it is time to take a glsnce at the prospects now before us. After reading over very attentively all the reports from the interior of the State, it is sufficiently evident that the crop of this year in Wheat will fully equal that of last year, if it does not exceed it. So also will the yields respectively of Wool and Wine, so that we may safely predict a plenteous year. The next question of interest, then, is that of prices. The new Wheat has had as yet only $1.70 offered for it, but that may be regarded merely as a feeler, for from the price in Liverpool and the low rates of freights, prices are bound to advance some. Then in England it is very probible that we shall hsve much larger prices this year than last. The crops in England do not promise well, neither do those in other parts of Europe. There will be, therefore, a much larger demand for foreign Wheat than there was last year, consequently higher prices will be offered for it. For Wool, too, the prospect is more cheering. While we have not the heavy prices prevalent with which we started last year, we need not apprehend as great a fall as was sustained then. And there is no doubt that our Wine crop will produce largely, and that Wine of good qusli y and commanding a good price will be obtained. All these things augur well for the coming year.

Receipts.

Receipts of Bay Produce this week have in some things been larger than those of last week, in others they have gone behind them. New Wheat and Barley have begun to come in. Receipts of Flour have been somewhat larger; of Wheat fifty per cent. in excess; of Barley somewhat less; of Potatoes about one-third less; of Bran they hsve increased slightly; of Middlings they have decreased one-half; of Wool nearly one-half; of Hides they have increased one-fourth; of Wine ncarly doubled; of Brandy they have increased five fold; of Beans they have decreased one-half; of Onions they have also decreased one-half; while of Hay they have nearly doubled.

We summarize receipts of Bay Produce, to date, as 16,912 quarter sacks of Flour; 89,105 centals of Wheat; 8,795 do of Barley; 8,250 do of Potatoes; 3,034 do of Bran; 339 do of Middlings; 1,344 bales of Wool; 1,865 Hides; 43,740 gallons of Wine; 3,160 do of Brandy; 615 centals of Beans; 227 do of Mustard Seed; 411 do of Onions; 1,633 tons of Hay; 23 do of Straw; and 1,026 centals of Corn.

Receipts of Wheat at Oakland Whsrf have aggregsted 7,400 centals, or 37 car loads.

Receipts of Coast Produce hsve sggregated 155 centals of Wheat; 41,045 do of Barley; 1,064 do of Oats; 188 do of Potatoes; 1,510 bales and 14 half bales of Wool; 1,359 Hides; 51 pipes, 1 puncheon and 2 casks of Wine; 202 centals of Mustsrd Seed; and 638 do of Corn.

From Oregon by the steamers we have received 11,247 qusrter sacks, and 2,013 half sacks of Flour; 3,528 do of Wheat; 7,504 do of Oats, besides other produce.

Barley.

Still as the new Barley comes in prices continue to decline day by day. Receipts last week were 12,840 centals. The first of new Bsrley only commanded very low figures. We note sales of 2,100 sacks of Dsrk Coast at $1.12½; 200 do at $1.13¾; 800 do feed at $1.15; 600 do at $1.17½; 700 do at $1.20; 1,000 Bay,for Reno,at $1.22½; 600 do light brown at $1.25; 200 do $1.30; 400 do light do at $1.37½; 1,300 choice brown at $1.40; and 300 do at $1.45.

Butter.

Receipts continue large, and there is very little import. In New York, a method of making Butter from Tallow at a cost of 15 cents per lb., has been introduced and it is claimed to be a grand success. Quite large sales have been made during the week.

Cheese.

There is a good supply both of Eastern and California in the market, and prices have not raised much for some time. Receipts have been large.

Flour.

Flour has fallen 25 cents since last week. There is at present very little export demand. Exports for the week aggregate 284 barrels, 1,217 half-sacks and 8,053 q uarter sacks to New York, Panama, Victoria, Mexico, China and Japan.

Hay.

Receipts of Volunteer Wheat have been pretty large. New brings from $11 to $14.50 per ton; and Choice old $17. We note sales of 25 tons of Wheat at $14.25; a small cargo of Volunteer Wheat at $16.50; 12 tons of Cow at $11; 8 do Volunteer at $14; 2 small cargoes of Wheat and Wild Oat at $16.50 to $17; 30 tons of coarse at $12 50; 12 do at $11.50; 5 cargoes of common Volunteer at $11.50 to $12.50; 10 tons at $10; a cargo et $16; 40 tons of Volunteer Wheat at $13; 40 tons at $11.50; and 35 do at $14.

Hops.

Market still continues dull without any tendency toward change.

Oats.

Oats are very low, large quantities of Oregon still continue coming in. Omaha is out of the market. We note sales of 1,000 bags of Californis at $1.75; 300 do Oregon and California at $1.80 to $1.90; 200 do Oregon at $2; and 1,000 do Oregon for Honolulu and Virginia.

Potatoes.

Receipts have declined considerably this week, reaching altogether 8,438 centals. Prices continue firm. We note sales of 300 sacks of old Bodega at $1.00 to $1.40, and 110 do new Lighthouse at $1.75 to $1.87½.

Wheat.

Receipts this week have aggregated 100,224 centals, fifty per cent. more than last week. Harvest Whest has begun to come in. Prices have fallen as there is only small demand, pending the arrival of more than 30,000 tons of tonnage now nearly due, and as in Liverpool they had declined a couple of cents. Freights are nominally as they were last week. We note sales of 5,400 sacks of California and Oregon at $1.75; 6,000 do shipping at $1.77½; 2,000 do milling, at railroad station, st $1.80; 15,000 do, to arrive, at $1.82½; 28,000 do shipping at $1.83½; and 2,300 do club and milling at $1.85.

Exports last week included per "Tantsllon Castle," to Cork, 29,872 centals; and per "Haddington," to Liverpool, 24,577 do, making a total of 54,449 centals, worth $97,199.

Wool.

The market for the last week has been quiet. Sales aggregate half a million of pounds. Large quantities are now beginning to arrive from the South.

GENERAL MERCHANDISE.

Imports during the week just closed have been pretty large, including the "Alden Besse," from Hongkong; the "Vallejo," from Liverpool; the "Mohongo," from Panama; the "Sebastian Bach," from Zebra, with 28,000 bags of Sugar; the "Legal Tender," from Puntarena, 3,350 bags of Coffee; the "Alcatraz," from Liverpool; the "Undaunted," from Liverpool; the "Great Republic," from Panama and the "California" from Guaymase. Exports have been carried in 7 vessels and have been of an aggregate value of $241,580. Bags are yet dull; Sugar is weak; so is Tea; Coffee is stiff; as also are Spices; Coal is dull; and Pig Iron is much depressed.

FRUIT MARKET.

The e is enough of all season-fruits in the market this week. The Cherries, Gooscberries and Currants look partlenlarly fine.

FRUIT MARKET.			
Tahiti,Or. ₱ 1000	— —@45 —	Peaches, ₱ lb	10 @12½
Cal. do	— —@— —	Apricots, ₱ lb	— @—
Limes, ₱ M	— —@10 —	Plums, ₱ lb	5 @10
Cal.Lemons,1000,50	@—	Pitted, do lb	15 @20
Bananas, ₱ bunch 3	—@5 —	Raisins, ₱ lb	8 @12
Pineapples, ₱ dz 8	—@10 —	Black Figs, ₱ lb	20 @15
Apples,eat'g, bx,2	— @2 50	White, do	15 @20
Early Pears	1 50 @ —	**VEGETABLES.**	
Cherries	5 @ 20	Cabbage, ₱ dz	.50 @75
Strawberries	6 00 @8 00	Garlic, ₱ lb	— @—
Gooseberries	6 @ 7	Green Peas	2 @ 3
Raspberries	20 @ —	Green Corn ₱ doz	.15 @25
Currants	6 @ 8	Marrowfat Squash per ton	7 00@8 00
Apricots	5 @ 7	Artichokes, ₱ lb	2 @—
Pears, Eating	— @ —	String Beans, ₱ lb	7 @10
Pomegran's, ₱ 100	— @ —	Lima Beans	6 @ 8
Grapes, Mission	— @ —	Peppers dry	.20 @25
DRIED FRUIT.		Okra	.30 @35
Apples, ₱ lb	8 @ 9	Cucumbers, dz	.50 @75
Pears, ₱ lb	6 @ 9		

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$20 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	35 50
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	37 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	27 50
Rustic, ₱ M	35 00	Laths, ₱ M	5 50
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough, ₱ M	$25 00
Surfaced refuse, ₱ M	22 50	Rough refuse, ₱ M	— —
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding, M	22 50	Siding, ₱ M	27 50
Half-inch siding, ref, M	16 00	Tongued and Grooved, surfaced, ₱ M	40 00
Half-inch, Surfaced, M	25 00	Do do refuse, ₱ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	40 00
Half-inch Battens, M	22 50	Rustic, ₱ M	42 50
Pickets, rough, ₱ M	14 00	Battens, ₱ lineal foot	1
Pickets, rough, p'ntd	16 00	Shingles ₱ M	3 50
Pickets, fancy, p'utd	22 50		
Shingles, ₱ M	3 00		

San Francisco Retail Market Rates.

Wednesday Noon, June 11, 1873.

FRUITS, VEGETABLES, ETC.

There is a tolerably good supply of vegetables and fruits in the market to-day. Apples and Apricots have fallen fellen somew hat. Strawberries, Raspberries and Currants have also declined. Beets and Celery have advanced, the new crop being in.

Apples, pr lb	10	@ 12½	Celery, ₱ doz	1 00	@1 50
Peers, per lb	—	@ 12½	Cucumbers, dz	75	@1 00
Apricots, lb	10	@ 25	Tometoes, ₱ lb	12½	@ —
PineApples,each	50	@1 00	Green Peas	5	@ 6
Bananas, ₱ doz	75	@ —	String Beans	8	@ 15
Canteleups	—	@ —	Cress, ₱ doz bun	20	@ —
Blackberr es	15	@ 25	Dried Herbs, lb	25	@ 35
Cal. Walnnts, lb	—	@ 20	Garlic ₱ bun	—	@ 10
Cranberries, ₱ g	—	@1 00	Green Corn, doz	25	@ 35
Strawberries, lb	10	@ 15	Lettuce, ₱ doz	25	@ 37½
Raspberries, lb	25	@ 30	Mushrooms, ₱ lb	50	@ —
Gooseberries	10	@ 25	Horseradish, ₱ lb	—	@ 25
Currents	10	@ —	Okra, dried, ₱ lb	50	@ —
Cherries, ₱ lb	15	@ 40	do fresh, ₱ lb	75	@ —
Orenges, ₱ doz	50	@1 00	Pumpkins, ₱ lb	—	@ —
Limes, per doz	25	@ —	Parsnips, doz	20	@ 25
Figs.dried Cal.	12½	@ 25	Parsley	15	@ —
Figs, Smyrne, lb	25	@ 35	Pickles, ₱ gal	50	@ 75
Asperagus, lb	10	@ 15	Redishes, doz	20	@ 25
Artichokes, doz	25	@ 35	Summer Squash	—	@ 5
Beets, ₱ doz	25	@ 35	Marrowfat, do	—	@ 3
Potatoes, New ₱ lb	3	@ 5	Hubberd, do	—	@ 3
Potetoes, sweet,	3	@ 5	Dry Lima, shl	—	@ 10
Broccoli, ₱ pc	10	@ 15	Spinage, ₱ bskt	25	@ 50
Cauliflower, †	10	@ 15	Salsify, ₱ bunch	—	@ —
Cabbage, ₱ doz	75	@1 00	Turnips, ₱ doz	20	@ 25
Carrots, ₱ doz	20	@ —	Rhubarb	6	@ 8

POULTRY, GAME, FISH, MEATS, ETC

There is a good supply of poultry in the market, but there is not much demand. Hares are coming in pretty freely. Wild pigeons are ont of the market. Beef, Mutton end Veal have been redneed considereibly in prices. Fish is getting scerce again. There are no salmon to be caugh', and they ere out of the market. There were no Rock Cod or Lake Bigeler Trout in the market this morning. Flounder, Rock Cod, Salt Water Perch, Lake Bigler Trout and Sardines have not advanced.

Chickens, apiece	75	@1 —	Flounder, ₱ lb	—	@ 20
Turkeys, ₱ lb	30	@ —	Salmon, ₱ lb	—	@ —
Mal&Canv Bk,pr	—	@ —	Smoked, new,	12½	@ —
Tame, do	1 50	@2 —	Pickled, ₱ lb	5	@ 6
Teal, ₱ doz	—	@ —	Salmon bellies	—	@ —
Geese,wild, pair	—	@ —	Rock Cod, ₱ lb	—	@ 15
Tame, ₱ pair	3 50	@4 —	Cod Fisb, dry, lb	12½	@ —
Snipe, ₱ doz	—	@ —	Perch, s water, lb	12½	@ —
Pigeons, dom. do	—	@1 20	Fresh water, lb	—	@ —
Wild, do	—	@ —	Lake Big. Trout	30	@ 37½
Hares, each	37½	@ —	Smelts,large ₱ lb	6	@ 8
Rabbits, tame	50	@1 00	Herring, Sm'kd.	75	@ —
Wild, do, ₱ dz	2 —	@ —	Tomcod, ₱ lb	10	@ 12½
Beef, tend, ₱ lb	20	@ 25	Terrapin, ₱ doz	3 00	@ —
Corned, ₱ lb	—	@ 8	Mackerel, p'k, ea	12½	@ —
Smoked, ₱ lb	15	@ —	Fresh, do lb	—	@ —
Pork, rib, etc., lb	—	@ 10	Sea Bass, ₱ lb	—	@ —
Chops, do, ₱ lb	15	@ —	Halibut	—	@ —
Veal, ₱ lb	15	@ 20	Sturgeon, ₱ lb	4	@ 5
Cutlet, do	15	@ 20	Oysters, ₱ 100	1 00	@ —
Mutton—chops,	—	@ 10	Chesp, ₱ doz	75	@ —
Leg Mutton, ₱ lb	10	@ —	Turbot	50	@ —
Lamb, ₱ lb	12½	@ 15	Crabs ₱ doz	1 00	@ —
Tongues, beef,	75	@ —	Soft Shell	37½	@ —
Tongues, pig, lb	10	@ —	Sbrimps	10	@ —
Bacon, Cal., ₱ lb	—	@ 18	Sardines	—	@ 12
Hams, Cal, ₱ lb	16	@ —	Soles	—	@ 30
Hams, Cross' s o	—	@ 20	Salmon Trout	—	@ —
Choice D'field	20	@ —	Young Salmon	50	@ 75
Whittaker's	18	@ 20			

MISCELLANEOUS.

Corrected weekly by B. Sbarboro & Bro., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. pr lb	25	@ 32	Syrup, S F. Gol'n.	60	@ 65
Cheese, Cal., lb	15	@ 20	Dried Apples	10	@ 12½
Lard. Cal., lb	12½	@ 15	Dr'd Ger. Prunes	10	@ 12½
Flour, ex.fem. bls	75	@6 00	Dr'd Figs, Cal	9	@ 10
Corn Meal. lb	2½	@ 3	Dr'd Peaches	8	@ 10
Sugar, wh.crsh'd	11½	@ 12	Oils, Kerosene	45	@ 50
do lt.brown, lb	10	@ 11	Eggs	30	@ —
Coffee, Sbarboro's family gr'nd, lb		27½	do Eastern	25	@ —
Coffee, green, lb	18	@ 22	Wines, Old Port	3 50	@5 00
Tea, fine blk, 50, 65, 75		@1 00	do Fr. Claret	1 00	@1 25
Tea, finst Jap, 55, 75, 90		@1 00	do Cal, dz. bot	3 00	@4 50
Candles, Admant'e	17	@ 25	Whisky, O.B, gal.	3 50	@5 00
Soap, Cal., lb		@ 10	Fr. Brandy	4 00	@10 00
Oan'd Oysters, dz.	2 50	@3 75	Rice, lb	—	@ 12½
			Yeast Powders, dz.	1 50	@2 00

——* Per lb. †Per dozen. ¶ Per gallon.

Leather Market Report.

[Reported for the Press by Dolliver & Bro.]

San Francisco, Wednesday, June 11 1873.

The demand for Domestic Skins and Sole Leather continues light at old prices. The same may be said in reference to French Skins, except that they have an upward tendency.

City Tanned Leather, ₱ lb	26@29
Santa Cruz Leather, ₱ lb	26@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornell an Females, 14 to 16 Kil	66 00@ 72 00
Beaumcrville, 15 Kil	60 00@ — —
Ogeran Calf, ₱ doz	54 00@ — —
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 60@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Shsep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25@ — —
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00@ — —
Harness Leatber, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leatber, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	21@ 25
Wax Side Leather, ₱ foot	17@ 19
Eastern Wax Leather	26

San Francisco Metal Market.

Wednesday, June 11, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton	$52 00	@	55 00
White Pig, ₱ ton	52 00	@	55 00
Refined Bar, bad assortment, ₱ lb	— —	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Sheet, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	
Nail Rod	11	@	
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
COPPER.—			
Braziers	— 35	@	— 38
Copper Tin'd	— 50	@	— —
O. Nie's Pat	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29	@	— 30
Composition Bolts	— 29	@	— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50	@	14 —
Roofing Plates	13 00	@	13 50
Banca Tin, Slabs, ₱ lb	— 40	@	— 42½
STEEL.—English Cast, ₱ lb	— 20	@	— 25
Drill	20	@	— —
Flat Bar	22	@	— —
Plough Points	16	@	— 17
Russia (for mould boards)	17	@	18
ZINC	9¼	@	10
Zinc, Sheet	— 9	@	— 10
NAILS—Assorted sizes	— 5½	@	— 9

GENERAL MERCHANDISE.

BAGS.		PAINTS.	
Eng, stand. Wh't	14½@ —	Atlan. W. Lead	11½@ 12
Flour Sacks ½s	15½@ 18	Whitening	— @ 2
" " ¼s	8¾@ 9½	Chelk	— @ 1
Stand. Gnnnies	17 @ 18	Paris White	— @ 3
" Wool Seoks	57½@ —	Oobre	— @ 3
" Berley do	15½@ 16	Venetian Red	— @ 3
Hessian 45-in.gds	12 @ —	Red Lead	— @ 11
do 60	17 @ —	Litherge	— @ 11
Burlaps, yerd	10½@ —	**RICE.**	
CANNED GOODS.		China No. 1, ₱ lb	6¾@ 7
Asst'd Pie Fruits in 2½ lb cans	3 00 @ —	do 2, do.	6¼@ 6¼
do Table do	3 75 @ 4 —	Japan	6½@ 7½
Jems & Jellies	4 — @ —	Patna	7 @ —
Pickles ½ gl	3 25 @ 3 50	Hawaiian	8 @ 9
COAL—Jobbing.		**SALT.**	
Australian, ₱ ton	13 — @14 —	Cal. Bav, per ton	5 00 @15—
Coose& Bel. Bay	8 50 @ —	Carmen Island	14 00 @30—
Seattle	11 00 @ —	Liverpool fine	25 00 @25—
Cumberl'd, cks	26 00 @ —	do coarse	19 00 @20—
do bulk	— — @25—	**SOAP.**	
Lehigh	20 00 @ —	Castile ₱ lb	9½@ 11
Liverpool	11 00 @12—	Local brands	5½@ 7
West Hartley	14 00 @16—	**SPICES.**	
Scotch	12 00 @14—	Allspice, per lb	15½@ 16
Screnton	15 00 @ —	Cloves	27½@ 30
Vancouver's Isl	12 00 @14—	Cassia	20 @ —
Charcoal, ₱ sk	75 @ —	Nutmeg	1 00 @ —
COFFEE.		Whole Pepper	— @ 21½
Costa Rica per lb	20 @ —	Ground Allspice	25 @ 30
Guetemala	20 @ —	do Cassia	45 @ 50
Java	— @ 23	do Cloves	30 @ 35
Manilla	19 @ —	do Mustard	30 @ 32½
Groud in cs	27½@ —	do Ginger	25 @ 30
Chicory	8 @ —	do Pepper	27½@ 38
FISH.		do Mace	1 30 @1 50
Pec. Dry Cod, new	— @ —	do Coffee	— @ —
ceses	8 @ 9	**SUGAR, ETC.**	
Eastern Cod	8½@ 9	Cal. Cube per lb	1 ½@ —
Salmon in bbls	8 00 @ —	Circle A crushed	11½@ —
do ½ bbls	4 50 @5 00	do grenuleted	11 @ 11¼
do 2½ lb cans	— @ —	Golden O	10 @ —
do 2lb cens	— @3 50	Hawaiian	20 @ 22½
do 1lb cans	— @2 —	Cal. Syrup in bls	52½@ —
Pick. Cod, bbls	— @ —	do in ½ bls	55 @ —
do ½ bols	— @ —	do in kegs	60 @ —
Oal. Smoked	— @ —	**TEA.**	
Herr'g, box	50 @ —	Oolong, Canton, lb	19 @ 25
Mack'l, No.1, ½ bls	00 @ 9 50	do Amoy	28 @ 50
" Extra	— @14 00	do Formosa	40 @ 80
" in kits	2 50 @ —	Imperial, Canton	25 @ 40
" mess	2 87½@2 50	do Pingsuey	45 @ 80
" ex. mess	— @4 00	do Moyune	60 @1 00
NAILS.		Gunpo'der, Cant.	30 @ 42½
Assorted size, lb	5¼@ 9 —	do Pingsuey	50 @ 90
OILS.		do Moyune	65 @1 25
Pacific Glue Co.		Y'ng Hy, Canton	28 @ 40
Neat F't No. 1	— @ —	do Pingsuey	40 @ 70
Pure	1 25 @ —	do Moyune	65 @ 85
Castor Oil, No.1	1 45 @1 50	Japan, ½ chests, bulk	30 @ 75
do No.2	1 31 @1 40	Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Cocoa Nut	60 @ —	Japan do, 3 lb bxs	45 @ 90
Olive Plagniol	5 00 @ —	do pl'n bx, 4½ lb	35 @ 65
do Possel	4 75 @ —	do ½&1 lb paper	30 @ 55
Palm	9 @ —	**TOBACCO—Jobbing.**	
do Bagicalupi	— @ —	Bright Navys	52½@ 60
Linseed	1 05 @1 10	Dark do	50 @ 55
Cbina nut in cs	80 @ 80	Dwarf Twist	60 @ 65
Sperm, crude	1 25 @ —	12 inch do	60 @ 67½
do bleached	1 90 @ —	Light Pressed	65 @ 75
Coast Whales	40 @ 45	Hard do	60 @ 70
Polar, refined	55 @ —	Coon. Wrap'r	40 @ 50
Lard	95 @ —	Penn. Wrapper	35 @ 45
Coal, refined Pet	37½@ 40	Ohio do	30 @ 40
Oleophine	37½ @ 40	Virgi'a Smok'g	60 @ 95
Devoe's Bril't	43 @ 45	Fine ct che'g, gr	80 @9 25
Long Island	37½@ 40	Fine cut ohewing, buc'ts	75 @ 90
Eureka	37½@ 40	Banner fine cut	9 25 @ —
Downer Kerose'e	50 @ 52½	Eureka Cala	8 50 @ —
Gas Light Oil	37½@ 40		

DOMESTIC PRODUCE.

Wednesday M., June 11, 1873.

BEANS.			
Beans, sm'l wh. lb	6 @ 6¼	do Oregon	1 75 @1 85
do, butter	6 @ 6½	Corn, White	1 27½@1 30
do, large, do	5½@ 6½	do, Yellow	1 27½@1 30
do, bayo	3½@ 3¾	Buckwheat	1 25 @ —
uo, pink	3½@ 3¾	Rye	2 00 @2 12½
do, pea	6½@ 7	**HOPS.**	
BROOM CORN.		California, 1871, lb	— @ —
Per ton	$60@150	do 1872	50 @ —
DAIRY PRODUCE.		Eastern, 1872, lb	60 @ 62½
Butter, Cal. fresh, lb	— @ —	**MISCELLANEOUS.**	
do, ordin'y roll	24 @ 26	Beeswax, per lb	32 @ 35
do, choice	29 @ —	Honey, choice	10 @ 22½

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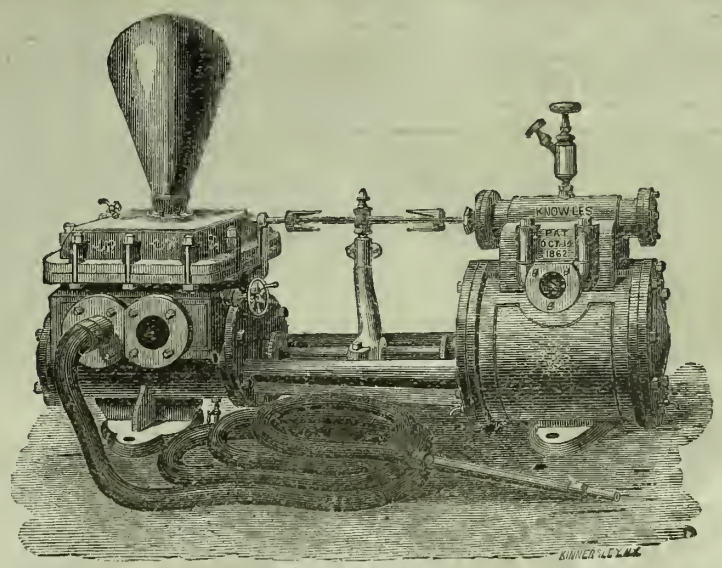
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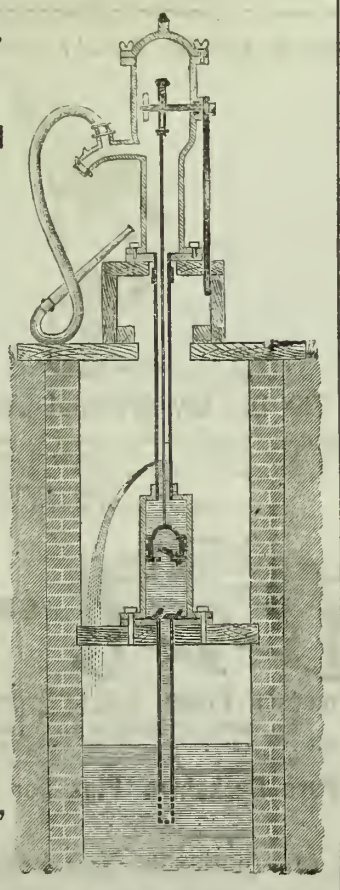
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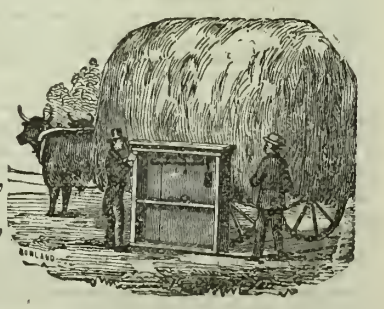
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Cotton Culture; by J. B. Symon; with an additional chapter on Cotton Seed and its uses. 190 pages, 1868. Price, post free, $1.75, at this office.

How Crops Grow: by Johnson; A treatise on the chemical composition, structure and life of the plant, for all students of agriculture; with illustration and analysis. 394 pages; 1868. Post free from this office, $2.50.

American Grape Growers' Guide; by Wm. Chorlton (N. Y.) 204 pages, 1852. Post free, $1, from this office.

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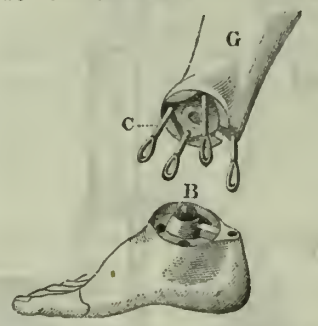
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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JUNE 21, 1873. [Number 25.

Butter and Cheese Factories.

The Great States of Illinois, Michigan, Wisconsin, Iowa and Minnesota are rapidly becoming among the noted for their production of dairy products, butter and cheese. The introduction of cheese factories to the more Eastern States, where the farms are of less extent, and the increased value of the products of these factories over that which prevailed under the old regime of "every farmer his own cheese maker," has greatly extended the principle of coöperation in this branch of agriculture, till now the larger States that we have named are adopting the same principle if not the practice of coöperation.

The coöperative or factory system is simply the gathering together of the milk of from one hundred to three hundred cows belonging to several proprietors, with a view of working up the product into butter and cheese, by those particularly skilled in their manufacture, resulting in more economical management, and a more uniform and better quality of butter and cheese. In California we have the factory system, without the coöperation, the requisite number of cows being often found the property of one person and fed in one locality.

The importance of the factory system to the dairy interest of the Western States, recently called out from the Northwestern Dairymens' Association a prize for the best design for a butter and cheese factory. After a careful examination of the various plans submitted, the prize was finally awarded to Mr. M. H. Thompson, of Elgin, Illinois.



PRIZE DESIGN FOR BUTTER AND CHEESE FACTORY.

The plan—an engraving of which is herewith presented—makes the measurement of the main building 30 by 60 feet; wing or manufacturing room, 28 by 28 feet, one story high; ice-house 12 by 16 feet, with butter cellar underneath; engine room, 12 by 16 feet. The cheese room wing is built three feet below the level of the main building, that the milk may be conducted instead of carried. The points of excellence claimed are compactness, capacity in proportion to cost, adaptability to any site, change of size without change of plan, and adaptation to either winter or summer use.

California to take the lead of the Pacific States and Territories in dairy products needs more system, more butter and cheese factories, and more skill in the management of them. But however slow the progress of innovations upon old systems may be, the improved product of the cheese factory, cannot but open the eyes of dairymen to its advantages and profits, and eventually lead to their general adoption through the principal dairy districts of the Pacific Coast. We may recur to the subject again at no distant day.

Dark Stables.

There are too many miserably dark horse stables, when it is so well known that light exercises a most important and salutary influence on the whole animal as well as vegetable kingdom. We are too apt to think that any place will do for a stable that is sufficiently dry, though the only opening for the admission of light be the entering door. This is all wrong. The eye of the horse is an exceedingly sensitive organ and always suffers from long continued darkness as when from partial sickness or disuse he is kept a longer time than usual within doors, or in stables where the broad light of day is excluded.

Most diseases to which the animal is subject are more virulent in dark stables than where a full flood of light can be admitted. Darkness is said to favor rest and sleep, and this is doubtless true, but it can be of no possible benefit to the animal during those long hours of wakeful incarceration, to which it is sometimes subjected, unless it be to enable the jockey to take advantage of the effects. A horse brought from a dark stable into the glare of the sunlight, is confused and startled from the imperfect vision of surrounding objects, and by his high stepping and uncertain action, impresses the novice with an idea of his spirit and action.

Even though fat may be induced by darkness, it is not conducive to muscular strength; for muscles deprived of the stimulus of light, become flaccid and the apparent high condition induced by this means, is soon lost by active exertion. Men whose employments confine them to poorly lighted apartments, soon lose the color and the energy of full health, and the same results follow similar treatment of animals. Light and thorough ventilation, should be the governing points in the erection of stabling for all domestic animals, and particularly for the horse.

Sanitary Precautions.

The cholera has begun its march of death in a few of our Eastern cities. Its movement is always Westward round the world; we should therefore adopt every precaution possible to ward off the unwelcome visitor.

Kitchen sinks are a convenience, but they are a frequent source of disease. They draw into the kitchen a continuous current of foul air, charged with the most poisonous malaria. Most of our autumnal fevers originate in effluvium from house drains and kindred stores of impurity. Kitchen sinks should be outside the room if possible, but if inside the escape of foul gases into the room should be prevented by a proper trap in the waste pipes as near the sink as possible.

It will be remembered that Prince Albert got his death by typhus fever, by inhaling foul air in this way, at Windsor castle; and the same cause killed many guests at a hotel in Washington, and of those who recovered some carry the poison in their system, to this day. Look well to all your sources of deleterious gases and foul air, as a sanitary measure, whether the cholera reaches us this season or not.

Napa Valley.—From J. M. of Napa, we learn, under date of June 11th, that hay and barley harvest has commenced; that the hay is good, some very heavy. That about an average crop of grain is expected, and grapes give promise of a good yield; but apricots and peaches are a light crop. The season having been unusually dry, corn and vegetables are growing very slowly, and roads are getting dusty.

Importance of Good Seed.—G. W. Butler of San Mateo county, sowed large, full-grown wheat, and small grained shriveled seed, side by side on similar soil for hay. At this writing he reports that the large grain is at least three inches taller than the other, is also rank and green, while the other seems withering and dying.

Irrigation Again.

We mean to keep this subject before the readers of the Rural as worthy of their especial attention in all places where any sort of system can be adopted, from the mountain torrents running to waste in useless channels, down to the artesian well with its constant though limited overflow, and the still more humble supply from the lifting power of wind and steam pumps from wells.

That thousands of acres that now only produce annual or biennial grasses, that fully mature and dry up before the first of July, might by a system of artificial flooding and the use of proper grasses and clovers be kept in green pasture throughout the entire of summer and autumn, needs no argument to prove; because there are numerous practical demonstrations of its truth, on a small scale, in the naturally irrigated spots that here and there gladden with their living green, the otherwise parched and barren hillsides, during the entire of our rainless season.

It would seem as though nature had planted and watered these little patches, for the very purpose of teaching us the first rude lesson; and yet how slow we are to learn or profit by the teaching. This year has demonstrated one great principle in the production of the cereals, that early sowing with a thorough winter's irrigation secures a crop. In no way is the farmer insured this winter's soaking, but by a system of reliable artificial irrigation.

There are many localiities also where grass lands, orchards, vineyards and vegetable grounds can be successfully cultivated through the entire of summer, which never could be but for a summer irrigation either upon the surface or underground. Hence we say that irrigation must and will come into successful practice over vast districts in California, whether we are swift or slow in its adoption.

Beef, Milk and Butter.—A correspondent asks our opinion of the best breed of cattle or cows for the production of beef, for dairy purposes and the best working cattle, and wants all these qualities combined in one breed.

This is asking a little too much of us; if such a thing as combining all these qualities in a single breed were possible, there would be but little need of the several breeds that have, all in their particular role, become famous. In very few words then we would say, that the Durhams or Short-horns are generally the greatest favorites for beef, from their large size and early maturity, though not making so fine beef as the Devons or Herefords. The Ayrshires give the greatest flow of milk, the Jerseys the richest, and the Devons make the best workers.

CORRESPONDENCE.

Observations on Frost.

EDS. PRESS:—I was much interested in reading the communication of Wm. R. Olden in the RURAL PRESS of May 31st, on immunity from frost. It is a vital point to the vine growers of this State, and cannot be too thoroughly discussed. With this view I give the result of some of my own observations, and cordially hope with your correspondent that others will likewise give us their experience. We all know that the foot-hills are far more secure from frost than the valley lands. In fact that large tracts at an elevation of two or three hundred feet are entirely secure. This should be an important consideration in locating a new vineyard, and after the great superiority of the grapes grown on the side hills is generally known, I think but few vineyards will be planted on valley land.

Still the fact remains that a great majority of our vineyards are on valley land, and nearly all exposed to frost. What can we do to prevent it? I agree with your correspondent that in some situations high pruniug is a safe guard, but it cannot be relied upon to a certainty, and there are several scrious objections to it.

In the first place the expense of cultivatiug a vineyard is very much increased; so much so do I find it that it would be a fatal objection to me against any vine that required a trellis for field culture. As to the extra crop paying the extra expense. It is undoubtedly trne that the crop is often doubled the first year by long pruning; and I have noticed it was always at the expense of the fntnre, and believe in the end it is an injury instead of an advantage.

Different soils and climates require different treatment, and high pruning may suit low ground. But on warm, dry soil, where grapes require their finest flavor, we find the choicest fruit on or near the ground covered by the foliage of the vine. On such ground by close planting and low pruning, the leaves of the vine protects the grape from the extreme heat of the sun, and keeps the ground moist. On the contrary high pruning exposea the fruit to the ann, making it vastly inferior in size, color and flavor. The moat successful way of avoiding the froat the past two years in this valley haa been by late pruning. I know of many instances where parties prnned late in very exposed situations and will have a very good crop, while all the fruit on vines in the same vineyards pruned early waa destroyed. There is another point worthy of notice in the fact that some kinds of vinea recover from the effect of frost much better than others. Of all the kinda within the circle of my experience, the Muscat of Alexandria will yield the largest crop aftcr being frosted, as nearly all the dormant buds of this variety will bear fruit. Next comes the Berger, Black Malvoise and Zinfindel. In planting new vineyards this is an important consideration, and it will pay to graft many now growing in expoaed situations.

The experience of last spring also proves that orange and lemon trees will endure more frost without injury than the vine when in foliage. The grain crop of thia valley generally looks well, and I think will be above an average one. The grape crop will not probably exceed one-fourth of what it would have been without the frost. G. S. B.

Yountville, Napa Co., June 9th, 1873.

The foregoing observationa are well worthy the carefnl eonaideration of grape growers. It is when practical men write and give reasona for their opinions, that suggestions have weight. If G. S. B. would favor the public by attaching his name in full to the articlea he may contribute, we are sure it would be appreciated. Mr. Olden, to whom allusion ia made in the above, in a note accompanying his article on "Surface Pulverization," this week, saya: "No man of sense pays much attention to anonymous communications; but that, what men say over their own signatures, being generally carefnlly considered, is rceeived with more confidence." We would like to see the suggeation generally adopted by our correapondents.

Dubuque, Iowa.

The cold weather of last winter has left its mark npon much of the fruit that has heretofore done very well in this section. Many of the grape vines have been killed down to the ground and are now springing up from the roots. The Early Richmond Cherry, of which we were wont to boast, has gone back on us thia year and the crop will be small; many of the trees having been killed outright. About one-half of the corn has been planted, some fields have been pl nted twice and will have to be gone over again, as much of the seed has rotted in consequence of the long continued cold raina.

Wheat looks very promising and the hay crop splendid. Potatoea are up but will soon be down, as the potato bug is already making sad havoc with them. Have never aeen as many of these miserable pests at thia season of the year as are now to be seen in Scott county, in this State; they were on the patch waiting for the potatoes to come up. H. T. W.

June 2d, 1873.

Surface Pulverization.

EDITORS RURAL PRESS:—In my last, I stated that moisture accumulates during the summer and fall, in properly prepared summer fallow, aud promised in my next to give what I conceive to be, the reason why this moisture does accumulate.

On all soils, particularly those that are solid and compact, the moisture that is constantly rising, evaporates during the hot season, unless the soil is covered, and protected from the rays of the sun; heat is essential to evaporation, and if by any means the soil can be kept cool, the rising moisture instead of evaporating, is condensed, and remaining in the soil, lowers its temperature, thus increasing its power of resisting evaporation. On the hard-baked soil of our uncultivated plains and hills, the heat of the sun will penetrate to the depth of three feet, the moisture raising through this heated crust by "capillary attraction," is instantly converted into vapor and lost to the soil; but if the surface is thoroughly pulverized to the depth of 8 to 12 inches, the heat of the sun cannot penetrate more than 3 or 4 inches; as pulverization and loosened soil is a good nonconductor of the heat; below that depth the soil remains cool, and as there is not sufficient heat te evaporate the moisture, the loosened soil becomes saturated like a sponge, and as the nights lengthen and the days shorten in the fall, and the heat of the sun diminishes, the moistnre gradually rises to the surface. These are facts, and if there are any doubters, I shall not take the trouble to convince them; it is easy for them to experiment for themselves, and if they investigate fairly, their own experiments will better serve to solve their doubts than any arguments of mine. When I state anything to be a fact, your readers may take it for granted that I am certain it is one; I am never positive unless I am sure of my ground; if I have any doubts I always mention them; I have proved all these points above mentioned over and over again.

Our naturally moist aoil, when well cultivated, never becomes dry, and when summer fallowed properly, ia saturated with moisture in the fall before the firat drop of rain falls; but good cultivation tells also on the driest soila. All farmers know it, aud any one may be sure that those who dispute this are not good cultivators.

Thorough Pulverization is Essential.

Deep plowing ia an injury to the crop without it; I will guarantee that in every case where deep plowing has apparently failed, it waa owing to the fact that the deeply stirred soil was not pulverized, the sun aud air penetrating through the open texture of the coarse, cloddy soil.

The principle objection on the part of The Barley Scratchers is, that good cultivation means work, and hard work on a limited piece of land, and it is combatible with hurry, scurrying over a great extent of country; the farmer takea aa few chancea as possible; the scarifier ia a gambler who trusts all to luck. Cromwell told hia men when about to wade a river, "put your trust in Providence and keep your powder dry." Onr barley scratcher has not any powder to apeak of, but his "trust in Providence is something sublime; failure after failure does not discourage him, he is sure that a good season will come, and like the sporting miner, sacrificea the fruits of his toil, in the vain and deaperate effort to "break that bank."

In the golden days of '49, I never visited any aection of the mines, but I met men coming away, who told me that the place waa "no good," I could not make grub there; this was at a time when any lazy man could make an ounce a day with his butcher knife and pan. These same fellowa have quit mining and are now engaged in barley scratching, without any more profitable results than ensued from their equally paltry efforts at mining. Visit any farming section in the State and you will find them on the move, "damming the country" they have just left. The whole barley scratching fraternity are a nuisance in any community, which they afflict with their presence. I have seen most of the farming country of this State, and I have yet to see a aection where a thorough farmer cannot raise a fair average crop four years out of five. Our Eastern frienda who propoae settling in California, should pay no attention to the grumblers, as they may confidently assure themaelvea that good farming always pays in the end.

WM. R. OLDEN.

Wool Dealers.

EDITORS PRESS:—Encloaed please find a letter, which you will be kind enough to addresa to the principle wool purchaser, or wool purchaaing firm of your city. I would not have troubled you, but I have looked all through the advertisements in the RURAL, and do not see that any of them advertise, and are desirous that it go into their hands. By so doing, you will much oblige, THOS. SMITH.

Roseburg, Douglaa Co., Oregon, June 5, 1873.

We have placed the letter in the hands of Watt & McClellan, whose card we find in the *San Francisco Directory*. So that we can oblige our patrons, we don't mind ouce in a while the giving of a free advertisement iu this way.

Suisun Valley.

EDITORS PRESS.—In our travels through Suisun Valley, we gleaned some interesting items concerniug the result of different methods of cultivating grain fields. D. McCreary, Esq., has been carrying on a war of extermination with mustard, kale, radish, dog fennel, and thistle.

In order to get the "weather-gauge," of these encumbrances, he plows thoroughly in the winter and then again in the spring, sowiug as late as 25th of March last. He has raiscd but a small amount of wheat per acre for several past years, during which time he has summer fallowed a large portion and let other portions run to voluuteer hay.

Thus he has rested and cleaned his land at once. Now for the present crop. Ten days siuce I gave you a synopsis of the successful farmers of lower Suisun Valley and left Mr. McCreary out in my list, because in my judgment it seemed impossible for him to make more than one-fifth, or at most one-fourth an average yield. I walked over his wheat and barley fields yesterday, and now think his crop above the average of Suisun Valley. The secret is, there is nothing but clean grain; no weeds, thistles, or anything to encumber the ground, and the land having "rested," gives the late grain an outcome which surprises even the proprietor himself.

David Hale, Esq., has a beautiful field of 80 acres on summer fallow land. In fact, all the fallow lands now have a good average yield for any season. McCreary showed us a piece of barley sown on March 27th, which will yield perhaps over a ton per acre. It is certainly heavier than a piece near it belonging to Jno. Smithers Esq., which was sown two months earlier. The advocates of winter sowiug are few and have little wheat aud little to say. It is but justice to say that the farmers of this well known region have learned a lesson by experience, and, as intelligent men, are profiting thereby.

"Rustic," a letter writer from Bridgeport, will probably learn something of iuterest to the public if he will step out and take a walk over the grain fields, and talk with the farmers, rather than look from your windows aud make random surmises about crops, etc. For a sample of the accuracy of his correspondence, pleasc remember his broadside at volunteer crops in general. We happen to know from personal observation aud information received from farmers of our own acquaintance, that the very grain he boasted so much about is volunteer.

We found here in Dixon Mr. Wm. M. Bernard, Esq. He it is who took hold of the Smith "finger bar," and soon found it impossible to fill all his orders, though he works sixteen men. When the "Adjustable Side-board" man walked into his shop and handed him a circular, there waa a trade in about four and one-half minutes, and as soon as a beef steak, etc., had been discussed at the good old-fashioned table at King's Hotel, we saw two men engaged in the manufacture of a set of hinges. So much for pluck and energy, and success to Bernard and all like him.

We have not had sufficient time to ascertain how much grain will be raised here; but as far aa we can see, the crop at present promises a good average. We saw one thresher leaving town with a "crew," and we doubt not others will follow in a few days. A great number of headera are engaged cutting barley. In consequence of good crops Dixon is quite lively.

SAVAGE.

June 9th, 1873.

Fruit in Kerosene Cans.

EDITORS PRESS:—In a recent isaue of yours, I saw a short article on Canned Fruits. For several years we have preserved our fruit in kerosene cans, for economy's sake, and we find that the fruit keeps much better in these cans —when soldered—than in small bulk.

Objections may be made, owing to the fact, that it is hard to clean the can thoroughly; our method is this: cleau the can—by rinsing—with hot water and washing powder; when well cleaned by this method, we pour into the can about a pint of vinegar, and set it on top of the atove; the steam of the vinegar eats up all remaining effects of coal oil, ao that we have never found a single taint of oil in the fruit so preserved. Soldering is preferable to wax, as it excludes all possible chance for the atmosphere to gain admittance to the fruit.

Last season, we put up fifteen cans, or seventy-five gallons of almost every variety of common fruits, and did not loose one can, ao far. When we open a can, we use what we require, and re-can in small cans or bottlea; what would not keep otherwise keeps until used np; thus, one dozen small cans, or bottles, will be sufficient for the season.

I give you this more for economy sake than for any snperiority in the preservation of the fruit; we generally alightly boil, and add a very little augar when canning. J. P.

QUESTION ABOUT BEES.—EDITORS PRESS:—Can you account for the late swarming of bees this seaaon; usually my bees swarmed in April; now out of 25 hives, *one* only has aeen fit to seek a new home.

Perhaps that universal epizooty has found them out; be that as it may, there must be some natnral canse for such a phenomena.

I send you this short item to see if any others have been served the same way. J. T.

June 6th, 1873.

We will have to look to Harbison of Sacramento or some other Bee Master, for the answer to our correspondent's inquiry.

Los Angeles County.

EDITORS PRESS.—Being a subscriber to your paper and a citizen of Los Angeles County, I feel called upon to correct certain statements made in your paper of May 31st, in regard to crops of Los Angeles County. The article referred to was taken from another paper—Oakland Daily *Transcript*—and pnblished by you, I doubt not, without any intention of doing a great wrong to our county.

Such an article is well calculated to deter people who are not acquainted with our county from coming amongst us on account as they would be led to believe, of the scarcity of the common products which are essential sustainance of life both for man and beast.

The following are about the facts so far as I am informed, and my information has been obtained from observations, in a great measure. We have on hand quite a quantity of old corn worth eighty cents per hundred, ready sacked in good sacks.

Onr barley, I believe to be quite or near an average with former crops; new barley can be bought from seventy-five to one dollar per hundred, and I know many acres of barley that would yield from eight to twelve sacks per acre, that will not be cut on account of low prices.

Los Angeles county will gather this year a better crop of wheat, both in quality and quantity, than haa been raised in any one year in the past five.

As to rye, I believe we will double any former crop. Hay is worth from $3.50 to $5.00, in the cock, in this connty, and is daily delivered in Loa Angeles city for $6.00 or $7.00 per ton, unbaled. We have thousands of pounds of the fineat bacon ever made, for twelve cents per pound. Butter twenty cents per pound, and eggs twenty cents per dozen. Everything is in proportion, and so far as vines and trees are concerned I have no complaint. In a word Los Angelea is surpassed by no other county in the State, possessiug, aa it does, the finest soil in the world, and a great variety of climate from a semi-tropical to a freezing point. I am well acquainted with a large portion of California and I know of no connty possessing ao many self-sustaining qualities as Los Angeles County. Notwithstanding we have had comparatively a dry season, we have enough to snpply our wants, beside a large surplus to spare.

F. W. G. & A. E.

El Monte, June 11th, 1873.

A Congress of Farmers.

Oue hundred and fifty farmer delegates, repreaenting 90 aocieties and 24 States, recently met at Indianapolis. The most prominent topic of discussion was that of cheaper transportation, and yet, on thia subject the Convenvention did not agree upon any definite action. It, however, adopted a report declaring that railroads accuring aid from the State by taxation of the people, should be amenable by a chartered provision to the right of the State to limit chargea for transportation.

A petition originating among western farmera ia now being circulated for signatures, asking Congresa to constrnct a double track railway from Chicago to New York, to be worked exclusively for tonnage and cheap ratea. The *Inter-Ocean* gives the following data:

It ia estimated that such a road, worked at about seven milea to the hour, would carry from Chicago to New York ever year a tonnage equal to 450,000,000 bushels of wheat, and return an equal amount of tonnage to Chicago. In other words, the road operated on thia plan would have a moving capacity of about 13,000,000 tona per annum each way. A very liberal estimate for the cost of construction and full equipment—including steel rails—would be $150,000,000. Reducing the tonnage to grain measure we have 950,000,000 bushels as the capacity to and from New York. At six cents per bushel this would yield a gross revenue of $57,000,000. Deduct for running expenses sixty-five per cent., and a net income is left of $19,950,000. Adopting the plan of the memorial, of devoting twelve per cent. to dividends—$18,000,000—and there remains a aurplus of $1,950,000 to be applied to fnture dividends and corresponding abatements made in the traffic rates.

These figures are not far out of the way, and they demonstrate the monstrous character of the swindle from which the producera of the West are now suffering. There is no doubt that the construction and honest operation of such a freight road would lift from the farmers of Illinois and of the whole Mississippi valley an enormous burden and restore to the West a fair ahare of the general prosperity of the country.

MISCELLANEOUS.

Discovery of Yosemite Valley.

[Written for the PRESS.]

Now that the fame of Yosemite Valley has become world wide, incidents connected with its discovery and early exploration have a general, if not a special interest. A narrative, however, penned so long after the occurrence, lacks that freshness essential in rendering it readable. It is offered more as a matter of history concerning the valley; as such, will claim to the fullest extent the charitable consideration of its readers. The writer regrets his inability to recall the names of a number composing the party spoken of. Should this come under the eye of any one able to furnish the information they will confer a favor by directing a line to the address of the writer.

Early in August, 1855, when the fervid heat of summer and parching rays of old Sol had dried up the waters in the gulches, baked and hardened the ground so that mining was neither pleasant or profitable, a proposition was made to have a season's hunting, and at the same time determine the truth of the Indian's story of the existence of a wonderful place, *mucho leguas*, (many miles or leagues) back in the mountains where there was "*mucho oro*," (much gold) and *malos Indianos*, (bad Indians.) The party that started from the head of Sherlock's Creek was composed of ten as fearless spirits and noble hearted fellows as ever shouldered a rifle, or gathered around a campfire. As it was to be a hunting and exploring trip, we limited our supplies to what could be packed upon two animals in addition to our blankets and cooking utensils, with but one pan, pick and shovel. Each member of the party carrying a gun, pistol or knife, with ammunition enough for meeting all contingencies. Our first camp was made near a small stream some twenty miles from Mariposa. It was early, in order that our hunters should have time for providing a deer for supper. No sooner had the fires been started and kettles on to boil than an Aborigine put in his appearance, followed soon after by others; all having little willow bowls or baskets containing something which those of our party keenest of scent and taste, discovered to be a most delicious beverage, resembling the richest cider from mixed tart and sweet apples. An immediate demand for the article sprang up; and, to supply it, the Indians hurried away, returning soon, however, reinforced in numbers and with liberal supplies of the now famous liquid, which was soon exhausted by our thirsty company.

After a number of hearty draughts, the writer and another member of the party shouldered their guns and started forth in quest of game. In our circuit we came upon the ranchore or camp of our elder merchants, where, squatted around a pile of manzanita berries, were some fifteen or twenty old crones with eight or ten naked papooses rolling on and in the heap, their jaws and hands working away for dear life, as fast as their mouths could be filled with berries, chewed and emptied into the large water-tight baskets beside them and from which the juice was dipped out into the small baskets and hurried to market. Shades of Imbibers! Could it be possible that this is the delectable drink over which we had smacked our lips so short a time before? Was there a chance for a doubt? Not one—for before our eyes were the living *manufactories* in active operation. Pinto cider making fully demonstrated. Returning to our camp, some time after, a lively trade was still in progress—the little willow bowls were being emptied by our yet thirsty crowd as fast as brought—the gloom of night finally ending the traffic.

That ignorance oftentimes is bliss, was proven here by the perfect satisfaction manifested by those who had partaken most freely, and were filled to repletion. That the perfidy of man should lead him to destroy these pleasing illusions is scarcely to be credited. It had been agreed upon by the initiated that *mum* was to be the word—nothing said about the discovery until the victims not only satisfied their present appetites, but provided for future indulgence, by filling their canteens as had been suggested. The thing, however, was too good to keep long. Pipes had no sooner been lighted and all gathered around the camp fire after our supper of flapjacks and bacon than the revelation of what we knew of Indian cider was made. That group—what splendid subjects for the pencil of a Hogarth, or pen of Dickens—like quiet waters lashed to foam by the swirl of a sudden wind came the knowledge. Ineffable disgust seized upon them, and that portion of the system credited with receiving aliment for sustaining it proved recreant; hurried exits were made into the surrounding shades, and the blue vault of the summer sky echoing to a Neptune chorus—"Oh, ah, ugh, hue, whue, hoino, hoine, ooo, hai, hai—I *shall* die."

Bright and early next morning our Indian merchants appeared in full force, well supplied and ready for business. That fickle Dame who, the night before had smiled upon them, now turned her back. Their hopes of fortune in sugar and tobacco were dashed to earth. In fact, had not wise council prevailed, they would have made a departure, not only from our camp, but the scenes that had known them through many a season of cider making.

Our second day's journey carried us over a high ridge that divides the south fork of the Merced from the waters running into and forming the Fresno and Chowchilla. After descending the mountain to the south fork, we crossed, following it down on the right hand bank until we came to a favorable place, we camped, intending to have some sport at fishing, the stream being alive with the finest speckled trout. Strange to say, they would not take the hook—were as wary and shy as if the stream had been whipped by a thousand anglers. The result of the afternoon's fishing was most unsatisfactory for hungry men. And, although our minds had been made up for a bountiful supper, we were forced to content ourselves on a square meal of anticipation and a small fish for each. The opinion expressed by one of the party, (a Kentuckian,) "that he allowed we didn't understand 'em," was concurred in without a dissenting voice.

The third day we continued down the stream some distance from our camping ground where the trail turned to the right and led out of the valley, up the side of the mountain, south of the main Merced. It was a terrible path for pack animals, crossing deep and precipitous ravines on fallen trees, and around ledges where there was scarce foothold for a goat. Indian trails are made oftener with reference to direction rather than ease and convenience for traveling. We were continually reminded of this in the day's journey. Circling around and crossing the numerous gulches that furrow the sides of the slope below the summit of the main ridge and break off into the grand canon below, was fatiguing in the extreme. We were obliged to follow the trail, not knowing the country, and fearing if we left it we would lose the animals that carried the supplies and bedding. The Aborigine is generally regarded as superior to his white brother in selecting the most feasible routes and easiest passes, but experience proves the contrary. The miner or mountaineer at once improves upon trails traveled by the Indians, as one and all will testify who clambered along that breakneck path of early days, and now gallop over the road into the Yosemite.

About the middle of the afternoon we came to the point where the trail led over the brink and commenced its downward course to the valley. Here, as if by common consent, a halt was made, and long and earnestly we gazed, feasting our eyes upon the beautiful scenery before, below and around us, until a wild "*Eureka!*" rang forth from ten lusty throats upon the still air of that mountain top. An inspiration filled each breast—a grand rejoicing that we were there, and for what was yet in store.

Far, far, down through the hazy ether the sheen of the silver thread of water that wound through and around the narrow strip of emerald could be seen, the whole scarce wider than one's palm. The glistening granite walls and towering battlements, the tiny rivers whose waters, leaping from the cliffs, were caught by each passing breeze and wafted in dewdrops to the valley below.

Sliding, rolling, tumbling, on we went, until it seemed as if there was no bottom. At last we reached and crossed the river to its left hand bank, following it up until, nearly at the foot of what is now known as the Yosemite Falls, we camped; the location offering fine grazing for our tired mules, as well as wood and water for our own convenience. Early next day we were on the *qui vive* for explorations and sight seeing. Two of the party most fatigued were detailed to guard camp, while the others were making explorations and who were to remain together for mutual aid in case of an attack by Indians or grizzlies. Each step developed so much that was new and wonderful, it was not long before all thought of fear vanished. To lead was the order and to be the first, the feeling that inspired every one. We saw neither Indian or grizzly during our stay, although abundant and recent signs of both were met with. The party, thus divided, explored every nook and corner of the valley. Those going up the left hand fork came upon Mirror Lake, Iron Spring, etc. Pushing on, up the canon some distance, the writer, among others, took the right hand main fork, following it to Vernal Fall, where the perpendicular walls barred farther progress. Returning to near the mouth of a creek coming down from the south side of the valley, we made a survey of the situation, and concluded that there was a possibility of going farther, if, by clambering along the side of the mountain we could reach the top of the cliff. After a hazardous scramble over and under jagged and broken masses of rock, we succeeded, coming out upon the ledge where there was a clump of small pines, and a few feet above where the smoother granite ran down to the water's edge, as it leaped into the abyss. That first view of the glorious scene as it burst upon us, as we raised our heads above the ruin of rock can not be described, and can never be forgotten. It was so entirely unexpected—so utterly different from what we had looked for, that we were spell-bound—completely overwhelmed with awe. We there stood motionless and mute. The first of civilized men to view nature's wildest wood modeled by the Creator's hand from rugged mountain sides.

Above the fall we amused ourselves in drifting wood into the rapid current to see it carried over, endeavored to throw stones beyond the influence of the draft caused by the falling waters, leaned against the stony bulwark on the edge of the precipice and gazed into the depths, where the boiling surging waters sent up clouds of spray, whereon were outlined the brightest archs of heaven. The wavering, humid grass plat at the caldron's side, all were enjoyed.

Before returning to camp, a rough outline was sketched of the prominent features of the landscape, which sketch is now most highly prized by the writer, as the first ever made of any portion of this now so much pictured scenery. At camp, where all the company had arrived before us, and where a general review of the day's doings were entered into, much was learned. Upon the declaration that a way around Vernal Fall had been found, that still another valley and falls, even higher than the Vernal existed, the anxiety to see them was such that, although it had been determined to start homeward on the morrow, it was put off for another day. We would gladly have postponed our return indefinitely, but our provisions were running short, our hunting and fishing had not been successful. We were on rations of one small jack and a cup of coffee per meal. That the stomach has ruled from Adam's day to the present hour can not be denied, or that poetry dwells not with famine, mentality can not overcome the physical requirements of a mountain trip, though surrounded by the grandeurs of Yosemite.

With the writer as guide, the entire party started next day soon after dawn for the upper valley, passing above the Vernal Falls, where we entered into the same amusements as the day before, of throwing stones, driving logs over the falls, carving our names in the rocks, etc. We then extended our explorations farther up the stream, following its bank or edge for some distance on the left hand side, until we turned off and passed through a rough and woody canon, at the base of Liberty Cap. We came out above the Nevada or Apron Falls, as we named them. Above these falls, upon a bench of smoother granite, we found a number of large boulders which we rolled over the brink. A huge one was started by a few blows of a pick at its lower side, as the mass sprang over the precipice and went crashing and thundering into the valley, cutting its way through the forest trees, as if they had been straws, a sense of fear came upon us, for might there not be hundreds of such rocks ready to start on their journey of destruction?

That our experience might be complete, clouds gathered around the mountain tops and poured out floods of rain. Vivid lightnings sprang from peak to peak, peals of thunder shook the earth and rang from cliff and battlement in continuous echoes.

The note of return was sounded on the following morning, but before leaving the valley, the bark was cut from the side of an immense pitch pine, standing at the lower or west end, near the trail, as it rose over the brow of hill after crossing the river; upon the white trunk we wrote our declaration of claiming the valley, signing our names, which, as recollected, were the three brothers, Mann, of Kentucky, Diokermau, of Chicago, the writer, and five whose names are not remembered. G. L. PEARSON.

South Vallejo, May 10, 1873.

SQUIRREL PEST.—The squirrels are depredating upon the grain crops to a greater extent than usual this season, and though some of our farmers are making heavy investments in strychnine, and devoting much time to the destruction of the pests, they will suffer the loss of a large portion, and, in some instances, the whole of their crops, where they lie adjacent to pasture and unimproved lands. This squirrel nuisance is draining the resources of the people of this and other infested counties at a rate that will soon leave them wholly bankrupt it it is not abated; and nothing effective for its abatement can be done without Legislative authority, which should be appealed to either for a compulsory enactment that will secure the total extirpation of the pests, or for a tax levy sufficient to warrant the offer of scalp bounties graded up from year to year on such a scale as will make an inducement to hunt down the last squirrel. Our people must realize that the squirrels are a heavier tax on them than all "sack rings," "middlemen," "railroad monopolies" and State tax gatherers combined; and that it is their own business, and in their own power, to adopt means that will remove this exhausting burden.

WHITHER go our ideas? They go into the memory of God.—*Joubert.*

Creation.

The scientific theory that creation and annihilation are impossible, and that the laws of nature are immutable, is not in accordance with exact science, and is, therefore, an error; for every change is only annihilation of the old and creation of the new; and every progressive step, whether universal or local, is the repeal of an old law, and the enactment of a new and better one. What we are cognizant of as the physical universe is not matter itself, but the force which actuate, it, and variety of quality in matter, is only variety of molecular motions. Therefore, as changes of color occur by refraction; of taste, by chemical action, and sound, by length of rythms, so all creations of which we are truly conscious, are but modes of motion, undergoing constant annihilation and re-creation.

Nothing, then, in the physical universe is immutable but elementary motion and matter, being wholly imperceptible to mental sense, is rather an immutable principle in nature than a creation; for how can we conceive of a thing of which we cannot be cognizant. And the only immutable principle in natural law is, that motion inevitably takes the direction of least resistance.

All physical things then, of which we are conscious, being modes of motion, creation consists in forming such channels of least resistance as produce those modes of motion which effect consciousness as physical qualities.. This being the only definition of creation, which harmonizes with exact science, is the datum from which true ideas of the creator may be formed.

Science has taught us that the potency of wisdom is superior to physical power, and is competent to resist and change the directions of physical motions; it, therefore, logically follows that Supreme Wisdom is the creator of those intelligent modes of motion which constitute the concrete universe of animate and inanimate matter, the scrutiny of which is scientific research, and the knowledge gained thereby is exact science.—*Am. Artisan.*

THE MANAGEMENT OF AQUARIA.—The walls of aquaria, exposed to light, become covered with a growth of cryptogamous vegetation. M. Charbonnier has observed that sometimes two or three days are sufficient for the full growth of this green moss, while at other times it hardly appeared in eight or ten days. He has noticed that every month, at the time of full moon, the vegetation has its maximum of intensity, and it is almost *nil* at new moon. At full moon a daily cleaning is needed; whereas, this period over, cleaning twice a week will be sufficient. M. Charbonnier has also made observations on the germs of microscopic conferva in water coming to his reservoirs from the Ourcq, in Paris. This water passes a considerable distance in the open air.

Now, the quantity of these germs is found to be very variable, and it is greatest at the time of the full moon. The explanation he suggests for such a curious phenomenon is as follows: Vegetable germs lying at the bottom of a stream are raised in sunlight by the gas bubbles, they then give off in respiration, and which continue some time attached to them. When night comes on the bubbles disappear, and the plants sink again; but if there is strong moonlight the production of gas continues, and they are kept floating; hence the superabundance met with at full moon.

REVERSING GEAR.— Considerable inventive genius has been expended of late in devising some method whereby the shocks arising from reversing rolling-mill gear and other heavy machinery where clutches are employed, may be, to a certain extent, obviated. One of the latest and most promising devices proposed was recently made by Mr. Jeremiah Head, and described in a paper read before the Iron and Steel Institute, at London, (Eng). His plan is to make arms of flat-plate springs, laid up in leaves like those of car-springs, with, this exception, that the leaves are straight, instead of bent, as in the ordinary car-spring. It is evident that, on this plan, if the center of the wheel be suddenly checked in its motion, the rim will advance in its revolution to an extent limited by resilience of the spring arms.

Mr. Head went through elaborate mathematical calculations to show that the strength and resilience of these spring arms would be ample for the purpose, and he gave diagrams illustrating the details of the construction.

IMPORTANT MINERAL DISCOVERY IN ENGLAND. - Extensive discoveries of Speigle iron ore have recently been made in North Devonshire, Eng., on the line of an important railway. This discovery is especially important when considered in connection with the manufacture of Bessemer steel, as hitherto the chief part of the Speigeliesen, for the English furnaces have been derived from Germany, and the increasing demand therefor, and short prospective supply of the ore has increased its value at Rottendam, from about $30 to $75 per ton. Hence, any new deposit of ore suitable for the production of Speigeliesen is of the utmost importance to the steel stock. Speigeliesen is employed for carbonizing in the Bessemer converter.

"INDURATED TAR," whatever that may be, it is claimed, does not crack, shrink, nor blister, and on that account it is thought would be well adapted for coating iron vessels. It is now being tested for that purpose in a British Government dockyard.

GUNS AND GUNPOWDER. — The problem of throwing the largest possible projectile with the greatest possible velocity, must be solved in one of two ways, either to strengthen the gun or so modify the powder that the cannon can stand the discharge with less strain.

The first method has been the one generally adopted, until the utmost practical limit in that direction has been about reached, and engineers are now turning their attention to the second proposition. Mammoth powder was first introduced to reduce the rapidity of combustion and thus bring the pressure to bear on the projectile gradually. Though the mammoth powder reduced the rapidity of the combustion, the greatest pressure still existed when the projectile had moved only a short distance, and necessarily diminished with the diminished surface of the grain as the shot traversed the remainder of the bore; while the desirable object is to increase rather than decrease the rapidity of the combustion from the instant the shot commences to move.

To obtain this desirable result it is now proposed to make the powder in large grains with several preparations, by which a small surface will be presented at first, which will rapidly increase by having their walls burned away.

SCIENCE AT FAULT.—Soon after Mr. Bessemer commenced his experiments, it was found that certain qualities of pig iron were utterly unfit for his process, and in this way scientific enquiries became inevitable in order to discover the cause. The chief source of trouble was traced to the presence of phosphorus, and next followed sulphur. It was then proved that if the former exceeded .06 or .07 per cent., the iron containing it had to be rejected. No sooner was the evil influence of these two substances detected than any number of (so-called) specifics were proposed to eliminate them from the iron, more thoroughly than could be done in the ordinary puddling furnace. But as yet no marked progress has actually been made, and Mr. Bessemer has to confine his process to iron produced from ores which contain no sulphur.

It is hoped, however, that as our knowledge of the chemical relations which exist between iron and other substances advances the great problem of eliminating those enemies to iron above named may be satisfactorily solved, so that all classes of ores of iron may be economized by this truly wonderful process of conversion. Such a result, however, will be accomplished only at the expense of long and patient study and experiment.

AMERICA ACKNOWLEDGED TO BE ENGLAND'S RIVAL.—I. Lowthian Bell, in his address to the members of the English "Iron and Steel Institute," said: "It is not the old world of Europe we have to fear, but the immense and undoubted powers possessed by the western hemisphere. In ores of the finest description, the resources of the United States are unlimited, while in coal our own wealth is, in comparison, but poverty. * * In the matter of skill, every one who has had the opportunity of inspecting the American iron works concurs in reporting that their development is quite in keeping with the advantages Nature has conferred upon that highly favored country."

SAVING THE CAFFEINE IN ROASTING COFFEE.—It is proposed to save the caffeine, the most of which is now wasted in the process of roasting coffee, by attaching a condenser to the roaster. A pound of coffee will yield an average of about 75 grains of caffeine. As the annual consumption in this country amounts to some 25,000 tons; if this saving could be effected on all the coffee roasted, it would amount to about 375 tons annually of this most valuable part of the berry.

IRON SHIPS WITHOUT SEAMS.—A mechanic in Philadelphia proposes to build steamships of one solid piece of iron or steel, without seam or joint. This he accomplishes by welding the plates and frame, instead of using bolts or rivets. He claims that he has invented machinery by which the thing can be done, at a great saving of cost, of weight and of time, and with a great gain of strength and durability.

COMPRESSING MOLTEN STEEL. — It is found necessary, in order to remove the air cells from molten steel by Whitworth's plan, to subject the fluid metal to a pressure of twenty tons to the square inch. Steel so compressed has been found, without further treatment, to bear fully double the terrible strain of the best iron made after the ordinary manner.

RAPID WORK.—One of the small engines employed to drive the machinery in the American Department at the Vienna Exhibition was lying at the works in pigs only twenty days before the vessel sailed by which it was taken to Europe. The engine has a 12-inch cylinder with 24-inch stroke, and was constructed at the Norwalk Iron Works, New York.

GLASS-LINED WATER PIPES, already alluded to in these columns, are being generally introduced into the dwellings of New York city. These pipes are, of course, free from the objections peculiar to all-lead pipes.

THE heating of buildings by hot air was practiced in Germany nine centuries ago. It is not, therefore, a modern idea, as is generally supposed.

Farmers in Council.

Sonoma Farmers' Club.

Club met June 7.

Mr. Fulton of the committee to communicate with Morgan & Sons, reported that one of the committee had visited San Francisco, but had effected nothing, on acconnt of the absence of the senior momber of the firm. Further time granted to the committee.

Mr. O'Brien offered au article in *Harper's Magazine* for June, to be read, relating to the organization of the Patrons of Husbandry, which Mr. Thompson read by roquest of the Club.

Members were called on to report on the crops. Vice-President Coulter in the chair.

President Holmes said.—As far as my own farm is concerned, the majority of my crop was sowed after the rain ceased. The dry weather has not affected it as seriously as I first supposed. We can expect bnt a limited crop. Laud planted in coru last year and sowed in wheat this year, promised well until the past few days, when the north winds have depreciated it. This description of laud will be a little over the average. I call attention to a particular case in reference to the benefit of deep plowing: Mr Johnson, a farmer near me, plowed a 60-acre field the ordinary depth; 20 acres of it he plowed with four horses and ordinary gang-plow, four to aix inches deep. He then pnt on another pair of horses and plowed two inches deeper. You can atand and see exactly the line betwcen the deep and the shallow plowed land; it is perfectly distinct. That plowed deep will produce five to eight bushels more per acre than the other. Farmers should go and see the field and they will be convinced that deep tillage will produce large crops. Corn is of average yield. Hay crop light.

Mr. Peugh said.—My wheat is blasted; the upper part of the head is aeedless; from one-third to ono-half of the stand has not a head in it. I attribute it to the late north winds.

Question.—What kind of wheat? Answer.—Smith wheat.

Peterson.—That kind of wheat alwaya blasts.

Pengh.—The White Club is not blasted.

Peterson.—The Oregon or Chili wheat does not blaat; hnt the Smith wheat is blasted—that is, that which grows on adobe soil.

Mr. ——.On the Gnilicos ranch there are some good and some poor fields. I don't think we will make a half crop. I've some wheat np to my shoulders on corn land; the balance nothing. Hay and corn crop light.

Mr. Adams.—My wheat is nneven; on good spots it promisea well. Hay crop quite good. I sowed Smith wheat. Some of it only produced a little sqnare head, which rnsted.

To a question he said.—I lime my wheat, and think it as good as bluestone as a preventive. I cut about 70 acrea for hay; think it will prodnce oue and three-qnarters tons per acre—on moist adobe land. My lnat crop was sowed in spring of 1872. A little of it came up as volunteer; the rest came up last fall.

Mr. Gauldiu.—My crop is uot ao bad as I anticipated three week ago. I have 30 acres corn land in wheat, which will produce 30 bushels per acre. I sowed 18th January and got done on 23d. My corn land not plowed will produce 20 bnshels wheat. The best fields I sowed as soon as plowed. That which I sowed after I had wholly finished plowing did not come up for some time; the gronnd got too dry, and the grain looks blne. One thing I uoticed: On the ridge furrows the grain stayed greener longer, ia taller, and filled better. After this I ahall plow in narrow ridges.

Mr. Skinner.—My crop is light; the early-sowed, blasting. I sowed the Smith wheat on 60 acres of uplaud, and abont one-quarter of it is blaated. Some Chili or Oregon wheat mixed with it, which is better than the Smith.

Mr. Staley.—I have some good wheat on both adobe and red land. Sowed aome in Jannary and some later. That on the upland shows the middle row of the head missiug. I have noticed that late-sown grain never misses a row; the hoads may be short, but they are alwaya filled. The Tappahannock wheat heads are long enough, but ridiculously slender. I don't believe in plowing twice in dry weather; when plowed once only, the gronnd is moist to the surface.

Mr. Fulton.—Mr. Duncan put in a crop of corn on my place this year. The aoil is gravelly. The neighbors aaid it was useless labor, as the land would not produce corn. He plowed it a foot deep, aud I have never seen better corn. It was planted on land where shallow-plowed wheat had before died out. I brought some samplea of the Smith wheat, which show how it is aff ted by blasting. The grain is entirely wanting in the top of the head. It was sown on black, gravelly soil, inclined to adobe. I have quit tnrning out hay nnless I aow it for hay; volunteer hay does not pay.

Rector.—My hay crop is light; have fine wheat on former corn land. I feel a deep interest in the subject of deep tillage. This conuty is adopted to deep plowing for the reason that our winds are surcharged with moistnre, and the land is presented in fine particles which rapidly absorb the moisture. Corn grows by stirring the ground. I would aupplement deep plowing by undergrouud draiuing. It would carry off the anperfluous water in winter and always be ready for the plow. I also believe in harrowing wheat. An incident connected with my farm convinces me of the benefit. I have a field of wheat, and some of my neighbors have driven their harrows over it without my permission. I was much chagrined, believing they were injuring my wheat, bnt now you can mark the path of the harrow by the superior growth of the wheat. After the first crust is formed I would use a harrow with the teeth inclining backward so as to break the crust aud not tear np the wheat.

R. A. Thompson—I wish to call attention to a corn cultivator invented hy Mr. Engene Light. I went to look at it, saw it working and think it about perfect. At Mr. Light's reqnest I drove myself and it took out the weeds completely. Mr. Light cultivates abont 8 acres per day. The body ia a triangular frame, with the base parallel with the axle, to each of the other sides of the frame are suspended three plows, which, when the machine is in motion, cut down the weeds without turning over the soil. The line of the tougue or motion of the machine is right over and along with the line of the row of corn, so that oue horse travels on each side of the row and the machine cleans two feet on each side of the row. I think it worthy the attention of farmers.

Holmes.—I wonld suggest, in connection with the subject of deep plowiug, that the club lease for a term of yeara about ten acres of land in this vicinity, underdrain it, put it in a thorough atate of cultivation, and sow aud plaut different crops. Plow it deep once in two or three years, and I believe we could show snch crops as we have never seen before. We have got to devise some means to rid onrselves of the water that stands on our lands, and also get rid of some of our land. The old style of farming will have to be abandoned and more thorough cultivation ensue. By the means of an experimontal farm we can experiment cheaply not only as to the best manner of farming, but the best crops to raise. I hope membera will consider the project proposed.

Adams.—I intend to underdrain my land. We can get the best sort of tile from the tile machine, and I believe it will pay to put them in. I have hitherto plowed my laud and left in ridges having deep dead furrows between. I shall clean these furrows out deeper, and put the drain tile in 16 to 20 inches deep; then I shall gradnally plow my land in a reverse direction until the tile are covered, and the land is level. The full of the land is from east to west. The awales furnish the natural outlet. I have ditched my land aud thrown out the dirt on one side, and it would astonish you to see the wheat that grows ou the dirt thus thrown ont. I attribute the snperior growth to drainage.

Coulter.—I am pleased with this discussion. My experience teaches me not to plow too much before you plant corn. I have tried it. I thought that thorough trituration of the soil would induce the coru to grow, bnt the north wind came and dried the soil so that but little corn came np. When I first plowed the moist earth came np, then it dried on the snrface. This dry earth was turned under and kept dry, and so the more I plowed the drier the soil became. I went into a pool shortly and bonght corn a man advertised in Virginia. To my snrprise the thing turned out as represented. It is the clearest, most beautiful corn I have ever seen. My observation teaches me that Mr. Rector's theory of underdraining is correct. The cool land condensea the moisture in the atmosphere and it is absorbed by the soil which, by underdraiuing, is presented in the best possible form for that purpose; hence I hclieve that it is fully important to drain dry as wet ground. The benefit which Mr. Rector thinks is derived from harrowing is due not so much from stirriug the crust as thinning the wheat. I think we sow too mnch wheat to the acre. Col. Berry and I have discnssed the matter. He sowed 150 pounds and I sowed 50 pounds to the acre, and I think my crop equalled his. Last winter I sowed only 32 ponnds to the acre with satisfactory results.

Mr. Conlter related his experience with two fields he had. One he plowed and sowed early, the other he plowed and sowed late. The details the Secretary did not catch, bnt to a qnestion Mr. Coulter said the inference he drew from his experience was not to plow until the weeds had all come up; then the plowing killa them and then the grain has all tho advantage of the start of new weeds.

Mr. Fulton thought 32 pounds too small.

Mr. Adams.—I have dug aeveral wells on my place and then filled them np, and where the wells were dug the wheat is greener and higher.

Mr. Skinner.—I wonld like to know something about the cultivation ot corn.

Mr. Coulter.—My father taught me that

> "He that plows deep while sluggards sleep,
> Will have corn both to sell and keep."

Mr. Gauldiu.—I don't think deep tillage neceessary while corn is growing. The horse hoe-cultivator is better than the shovel-plow; tho latter turns over the gronnd too much.

Mr. Coulter.—I think the shovel-plow can make as many weeds as a man wants. I have seen the Light Cultivator. It cnts off everything in its way and loosens the gronnd without turning, and effectually kills the weeds. My father taught me that if I cut the roots of the weeds, he had no objection to leaving them standing. Light's Cultivator is a triangular frame, to which are fixed three immovable plows on each side. Farmers will understand their shape when I say they are steel plows, without the mold board, and are near enough in their places to strike every weed in their course.

The Preaident exhibited a package of aeeds which had been presented to the Club by Bennett, Page & Co., produce merchants, 304 Davis street, San Francisco. The seeds were distributed among the members.

On motion, adjourned.—*Sonoma Democrat.*

Oakland Farming, Horticultural and Industrial Club.

Meeting, Friday evening, June 13th. Dr. Carr being absent, it was voted that Vice President, Dr. W. P. Gibbons, of Alameda, occupy the chair. We quote the following report of proceedings from the Oakland *Daily Transcript*:

Mr. W. B. Ewer, editor of the Rural Press, delivered a very able and instructive address before the Oaklaud Farmers' Club last evening. He treated agriculture as a science, and showed that it required as liberal au education to conduct agricultural pursnits properly and profitably, as in auy other branch of business. The introductory portion of the addreas we failed to hear, and therefore commence with the main argument, giving only a syuopsis of the very interesting discourse. He showed the great advantages which the farmer had to store his mind with

Useful Knowledge.

He not only had the whole store-house of nature from which to draw, but, untrammelled by the cares and vexations of business, after his labor is accomplished for the day, and especially for the aeason, what a chance for storing the mind with knowledge and scieuce that shall unlock to him the mysteries of nature, and for which he can improve to his financial advantage. What a field for the

Study of Plants,

Animals and minerals. Every day brings something new, unfolds some new facts, some new discovery in science. The intelligent farmer is ever on the alert. He rises early, and with what pleasure he views his growiug grain, and the development of choice animals. He showed the difference between the man who tilled his soil intelligently and scientifically, and the man who tilled his land by sheer muscle alone. The first took pleasnre in his pursuit, while the latter looked upon it as drudgery. Since agriculture haa assumed its position as a science, and has been governed by progreasive and

Educated Intelligence,

It is becoming the favorite pursnit of the wealthy and refined. Thought aud brain work has relieved the elbow of one-half its labor. Inveutive genius has come to the relief of the intelligent farmer. He compared the antiquated mode of farming of former years, with that of the present—the old scythe which, from the beginning of time, we see awung across tho ahonlder of Old Time, with the modern mower. The sickle, with which grain was wont to bo reaped hy the handfull, to the reaper of the present day. The hand-rake, the horse-power, and the ancient threshing by flail, or tramping ont the grain with auimals, to the present threshing machine. Do we realize what has bronght about this great change? Simply

Education and Knowledge.

Progressive agriculture advances every other business, for it is tho hasis of all business, aud upon it depends the prosperity of a country. To it we owe our railroads, our commerce, our national wealth. Mechanical improvements may not increase in the futnre as in the past, but scientific research will greatly increase. We have uot time or space to follow the speaker through hia interesting remarks touching this snhject and will only refer to that portion which is of the very greatest importance to agriculturists, and the world, that of

Fertilizers.

The country is becoming impoverished by continnal cultivation, without renewing the lands with tho necessary elements entering into that which we produce. For instance: fifty bnshels of wheat produced from an acre of land takes up sixty pounds of potash and forty pounds of phosphate—forty pounds of the potash and thirty pounds of the phosphate goes into the grain, the balance into the stalk. Therefore, every year we aend out of our State in the shape of grain, allowing that we load 300 ahips, averaging 1,000 tons each, 4,000 tons of potash and 2,500 tons of phosphate, never to be returned. Now, how is this drain upon our soil each year to be remedied; or, rather, the necessary elemeuts to be restored to save our lands from impoverishment? He showed that we must look

To Science,

For relief, and that science had stepped in and discovered hidden in the rocks and the bowels of the earth, where the plow or muscular agricultnre would never have discovered them, the relief we songht. He referred to the discoverica of potash in the salt fields, aud phosphates in the rocks that lined the streams of Sonth Carolina, and other parts of the country, which was being gronnd up and used to restore to the aoil the depleted miuerals. How long before California will cease its reckless, extravagaut mode of agriculture, and take the higher and more intelligent, progressivo and scientific mode of farming, by saving that which is so necessary for tho preservation of the fruitfullness of our aoil? He closed by stating that nature had provided ample material for all our wants, and that scientific brains held the key to unlock this great storehouse of nature. At the close the society passed a

Vote of Thanks

To the speaker for hia able address. Mr. Webster then read a majority report upon the greenback question—takiug ground in favor of metallic currency. Professor Rising was then invited to address the Club at his earliest convenience. Native and lawn grasses were selected as a subject for discussion at the next meeting. After which, Mr. Webster presented the Club with a box of the largest and most luscious cherries we have feasted our eyes upon or tickled our palate with, since the memory of man runneth not to the contrary. They were of the Elton variety, and grown on hi. farm at Fruit Vale.

Mr. Glasa corroborated Mr. Ewer's statement concerning Nature's bountiful supply of mineral fertilizers by saying that he knew of immense deposits containiug salt and potash in Arizona and Colorado, and also of marl, sufficient to supply the whole country.

The Club voted that thanks were due Mr. Webster for his successful efforts in producing—on his farm and at the club—the choice cherries preseuted.

Committee on Grange reported progress and were granted further time to act.

Adjourned to June 27th.

San Jose Farmers' Club.

Club met June 14th, President Casey presiding.

Mr. Cottle asked if the Farmers' Stalls were any longer farmers' stalls, or whether the agent was doing business on his own account.

Mr. Hobson said he supposed he was working under the auspices of the Club, but he knew nothing for certain.

Mr. Cottle said he was sure the agent was buying and selling just as other traders, and he was not to be blamed, for tho patronage of the club would uot amount to a living. Mr. Cottle desired to raise the question whether or not it would be best to dissolve connection with tho agent.

Mr. Fuller thought the agent should be allowed to make his stock complete from outside sources, as long as the farmer did not supply him with sufficient variety aud number of articles.

Mr. Herring said the agent had not broken any faith with the club; that he was only carrying out the origiual contract.

Mr. Cottle said he had no objection to the agent buying and selling all that the market required over and above what was furnished by the farmers, until the commission business became of enough importance to warraut the agent in devoting his entire attention to that.

On motion the whole matter was referred to the Market Committee, with instructions to make such arraugements as they considered proper in the premises.

In the matter of selecting a question for next Saturday, the following was agreed upon: *Resolved*, That our School System is both burdensome and inefficient, and should be modified.

Under the head of Questions and Answers, Mr. Herring asked Mr. Peebles what profits there are in raising hogs in connection with grain.

Mr. Peebles said he had experience in raising hogs and packing pork before he came to California. When he came here in 1855, he secured the best breed of hogs and experimented on how much pork he could make with a certain amount of grain. He found that by feeding in the field, he could make a pound of pork with six pounds of grain, and by feeding thus he could get a cent a pound for his grain standing in the field. He tried the Suffolk, and made a pound of pork with four pounds of grain, but this breed managed badly. He then got the Essex, and found a pound of pork cost from five and a half to six pounds. His plan was to turn the hogs into the field when the grain is up a few inches, and let them stay until it is all gone. After this he put the hogs in a pen and fed them for a month or two. This plan made them fat enough for market, not in pretty good order as pork is sold, but good fat meat as it should be. He further stated that if any farmer would lay aside a portion of his land, let it go to barley and turn his hogs on it, he would get a better crop of barley the next year than in any other manner.

On motion, it was ordered that the names of delinquents be read only on the first Saturday in each month, instead of every Saturday.

On motion, the Secretary was directed to notify each delinquent, by postal card, of the amount of his dues, and request him to pay the same.

The regular discussion was on the resolution in regard to the decision of the Supreme Court in reference to the taxation of solvent debts.

Mr. Peebels said that he considered the decision very far fetched, but if the Supreme Court has so decided, we can't help ourselves until the next election for Supreme Judges. He didn't see how we could do anything through the courts.

Mr. Cottle said he had found only one man who said the decision was right, and he claimed that it prevented double taxation. The speaker said there were several remedies suggested, some of them almost revolutionary, and not to be adopted only in extreme cases. This, he thought, was an extreme case. We could

change the Constitution, but that would take fully as long as to change the Supreme Court. He wanted the Club to dispose of the question and pass the resolution.

Mr. Holloway endorsed the views of Messrs. Cottle and Peebels, and suggested another mode of proceeding toward a remedy. This remedy is for the Legislature to impeach the Supreme bench. He considered himself very much deceived if the decision did not give good cause for impeachment. He stated on information that there were $7,000,000 owing to the State treasury by parties in San Francisco and vicinity, who by this decision go scott free. This fact of itself is *prima facie* evidence of corruption, and gives good cause for impeachment. He thought the most stringent remedy we could apply would be the better for the State.

Mr. Erkson said the gentleman might have facts before him showing corruption, but he did not name any. For himself he should be far from charging the Supreme Court with corrupt motives without some positive proof. He thought the decision wrong, but considered that the only way we have left to right ourselves is to elect different men to office; to elect legislators who will so amend the revenue laws as to compel all property to pay its proper proportion of taxes. This is a much shorter method than to attempt to impeach the Judges or change the Constitution, or elect new Judges, and would be quite as effective.

Mr. Hobson wanted to know, whether, as the Supreme Court is the highest authority as regards law, wouldn't this decision hold against any law passed by the Legislature? Could the Legislature make solvent debts taxable in the face of the decision of the Supreme Court that they are not taxable?

Mr. Cottle said the Supreme Court evidently did not intend to do right. Their pretext was that it would prevent double taxation, but they have forced double taxation on the people; inasmuch as they have relieved half the property while the other half will have to be taxed in a double amount in order to raise the required revenue. The Supreme Court evidently wanted to relieve a certain class of property from paying taxes, without regard to the consequences of its act, without caring how hardly it oppressed the majority of the people.

After some further discussion, the resolution was laid over for another week, and the club adjourned.—*Mercury.*

Healdsburg Grange.

EDITORS RURAL PRESS:—A Grange of the Patrons of Husbandry, was organized in this place on the 29th of May, with the following charter members: T. H. Merry, Master; Charles Alexander, Overseer; Ira Proctor, Lecturer; Wm. H. Moss, Steward; H. C. Spencer, Assistant Steward; P. S. Peck, Chaplain; I. N. Strapp, Treasurer; L. M. Holt, Secretary; Robt. Finley, Gate Keeper; Miss Nettie Tubbs, Stewardess; Mrs. P. S. Peck, Ceres; Mrs. Chas. Alexander, Pomona; and Mrs. T. H. Merry, Flores. Wm. H. Baxter, of Napa, the State Deputy, was present.

The farmers of this section of the state mean business. Their interests have been trifled with long enough, and they are now flocking to the standard and supporting their own interests.

Harvest has commenced in this locality and the crops are good. L. M. H.

Healdsburg, June 10th.

Healdsburg Grange.

A meeting of the Grange was held at Masonic Hall, June 7. There was a full attendance, and important business, necessary to put the Grange in working order was transacted. Several propositions for membership were received and referred to committees. The regular meetings have been fixed, until further notice, at 1:30 o'clock, P. M. of each Saturday. It is thought every two weeks will be often enough to meet after the Grange gets into running order.

Several questions of interest were discussed at length. Robert Finley presented a sample of Surprise oats measuring over seven feet in hight, with the statement that they were a fair sample of a field of nine acres. The grain was full and plump, and when ripe will weigh much above the average. He promised a sample of the threshed oats at some future meeting. He invited members to visit the field on his farm six miles below town on the west side of the river.—*Flag.*

Turlock Grange.

A meeting of the farmers was held at Turlock, June 6th, for the purpose of organizing a Grange of the Patrons of Husbandry.

Benjamin H. Deane was called to the chair, and John A. Henderson requested to act as Secretary.

The following resolution was passed, without a disseuting vote:

Resolved—That no one be admitted as a charter member of this Grange who is not known to be exclusively in the interests of farming.

The Grange then proceeded to ballot for officers with the following result:

Master, J. W. A. Wright; Overscer, B. H. Deane; Lecturer, A. S. Fulkerth; Steward, S. H. Crane; Assistant Steward, M. J. Hall; Chaplain, E. S. Russell; Treasurer, John Warner; Secretary, John A. Henderson; Gate Keeper, Ed. Warner; Pomona, Mrs. A. S. Fulkerth; Flora, Mrs. S. H. Crane; Stewardess, Mrs. M. J. Hall; Ceres, Mrs. I. Warner.

This grange organized with a full number of charter members, twenty male and ten female members.

The Standiug Executive Committee are John Fox; Edward McCabe, and J. W. A. Wright.

JOHN A. HENDERSON, Sec.

Santa Cruz Farmers' Club.

The Club met on Saturday afternoon, June 7th. President J. S. Mattison, presiding.

The Committee on assessments made the following report on the dog tax:

Report of Committee.

Your Committee to whom was referred the question of the legality of the special tax upon dogs, levied by the Board of Supervisors of the County, respectfully report:

That the following order was made by the Board of Supervisors, on the 4th of February, 1873: "The Board does now order that there shall be a tax levied and collected npon the dogs of this County as follows, to-wit: On the first dog a tax of $3; on each additional dog (of either sex) a tax of $5; on each female dog a tax of $4. And the Assessor is hereby ordered to kill any dog of either sex whose owner refuses to pay tax thereon."

We have made as thorough an examination of the Code and Statutes as was possible in the time allowed, and have consulted with several legal gentlemen upon the subject, but have been unable to find any other authority than that contained in Section 4046 of the Political Code, which after enumerating various powers of the Board of Supervisors, says, it may "tax dogs and direct the application of the tax."

The law does not fix or limit the rate of this tax, or make any application of the proceeds to any specific purpose. These questions are left to the discretion of the Board. The Board, however, has made no order applying this tax to any specific purpose, and in the absence of such an order we presume that the money will be appropriated as other State and County taxes.

That portion of the order which directs the Assessor to kill dogs upon which the tax is not paid, is, in our opinion, entirely unauthorized; and should the Assessor execute this order he would be liable to the owner of the dog for his value and to a criminal prosecution. We believe the Assessor has not attempted to execute this part of the order.

The Supreme Court of this State has decided that a dog is property; that its value may be recovered in our Courts. They are also declared to be property by the Penal Code. And the State Board of Equalization, in its instructions to Assessors and County Board of Equalization, says: "No special tax, as in the old revenue law, is levied upon dogs by the Code; but as these animals are property, they, like other animals, must be assessed at their full cash value."

Now, if the Assessor obeys his oath of office, and carries out the instructions of the State Board of Equalization, he must assess all dogs in the County as property. This duty is imperative upon the Assessor. It is as much his duty to assess every dog in the County at its full cash value as it is to assess every horse, cow or farm. There is no law that authorizes him to omit dogs in the assessment of property, and certainly no order of the Board of Supervisors can relieve him from duty.

Dogs, then, being property, and assessed at their full cash value, can this special tax be assessed and collected upon the same property? Certainly not, without subjecting the owners to double taxation.

This question needs no argument; for it is well settled by our Supreme Court that double taxation is in violation of that provision of our Constitution, which requires that all taxation shall be equal and uniform.

The "full cash value" is the uniform standard fixed by law for assessment of property, and any deviation from this rule, whereby any specific rate of taxation is levied upon one class of property, without regard to its valuo, will, in our opinion, come within the same constitutional prohibition.

If these views are correct it follows that the special tax levied upon dogs in this county could not be enforced if properly contested. Your committee assume that in levying this special tax, the Board was actuated more by a desire to rid the county of worthless dogs, than to raise revenue for any specific purpose. Such a result is certainly desirable, but we do not think the object can be attained in that way.

As a rule, men who own worthless dogs are worthless themselves, and entirely independent of the Tax Collector. It is to the men who own valuable dogs—largely the farmers of the county, to whom one or more dogs is an absolute necessity—who have this tax to pay. A large portion of our population are struggling to establish homes in our hills, gulches and mountains, and they are compelled to pay this onerons tax or dispose of their dogs, and leave their premises, poultry, young stock, etc., to the depredations of thieves and vermin.

It is notorious that there is scarcely a farm in the county on which poultry can be reared without dogs to protect them from the attacks of wild animals. But few, if any, of this class of persons object to payiug tax upon the value of their dogs; but his special tax is very generally regarded as excessive, unequal, unnecessary and unjust.

Your committee recommeud that the Farmers' Club request the Board of Supervisors to reconsider their action in the premises, and rescind their order levying this special tax, and that the Board direct the Assessor to enter all dogs upon the Assessment Roll their full cash value, if he has not already done so.

Respectfully submitted,

B. CAHOON, Chairman.

On motion, the report was accepted and ordered to be placed on file.

On motion, the committee was instructed to appear before the Board of Supervisors and request the Board rescind the order.

B. Peyton, Bryan Bolton and James Archibald were proposed and elected members of the club.

The club then adjourned to Saturday, June 21st, 1873.

Sutter Farmers' Club.

Club met June 7th, Vice President, S. E. Wilson, in the chair.

J. Marcuse, Chairman of the "Railroad" Committee, read a message to the Club from A. N. Towne General Superintendent of the C. P. R. R. Co., which was, on motion, ordred embodied in these minutes, which reads as follows:

SACRAMENTO, June 7, 1873.

J. Marcuse, Yuba City:—I am just out from a sickness of ten days. Our President who has the matter with regard to repairing of road in hand is now in San Francisco. I do not know what has been done in the matter.

A. N. TOWNE.

On motion the Secretary was authorized to advertise in the public press for proposals by transportation companies to carry our wheat to tide water and return freight at a reasonable rate.

The question relative to professional threshers furnishing all the required help, was then discussed at considerable length, when the following was unanimously adopted: On motion the Club recommended that professioual threshers furnish all the help necessary for threshing, and that farmers prepare themselves to pay down at least one-half of the expense of threshing.

The "heading" question was then taken up, when considerable talk was indulged in, for and against the header, by Elmer, Starr, Walton, Jones and Ohleyer. All seemed to agree that the heading process had many faults, but that there was as yet no machine in California that could supercede the header.—*Sutter Banner.*

A GRANGE AT GUENOC, LAKE COUNTY.—W. H. Baxter organized a Grange at Gucnoc, Lake county, on the 5th instant, with a charter list of twenty-five members, and the following list of officers: J. M. Hamilton, Master; A. A. Richie, Secretary; D. M. Copsey, Overseer; J. B. Greenfield, Lecturer; S. A. Copsey, Chaplain; A. H. Cheeney, Treasurer; H. A. Oliver, Assistant Stewart; Mrs. C. Coburn, Ceres; Mrs. J. A. Murphy, Pomona; Mrs. L. S. Cannon, Flora, and Mrs. A. H. Cheeney, Stewardess. A correspondent of the Napa *Register* says that a great interest is manifested in that section in regard to the order, and numbers are anxious to join immediately.—*Flag.*

Benefit of Irrigation.

If any of our farmers have any doubts of the practical benefits to be derived from irrigation, they should visit the ranches that have this year been watered from the Calaveras a few miles north of this city. There are fields of wheat in that locality that will probably yield from forty to sixty bushels per acre, and this enormous yield will be the result of irrigation. It is evident that the value of this land has been increased at least four-fold by the construction of a few canals so that the water of the Calaveras river is made available for irrigation, and if the river had contained sufficient water thousands of acres more could have been more equally productive. A canal from the Mokelumne could be constructed which would furnish water for one hundred thousand acres of land, and the whole expense of the canal, with all the lateral branches necessary to carry the water upon every quarter section of irrigable land between the line of the canal and the tule land would be paid by the increased crop the first dry season. The water of the canal could also be used with profit to the farmer in all seasons. Mr. W. D. Ashley, who owns a ranch on the Calaveras where he has facilities for irrigation, brought to our office on Saturday a bundle of alfalfa as a specimen of the second crop on a lot of twenty acres. He cut a fine crop of hay from this land on the first of May and then irrigated. The specimens of alfalfa shown us have grown since that time, and are from two and a half to three feet in leugth, proving most conclusively the feasibility of raising several crops per annum of this valuable product, providing irrigating facilities can be secured.—*Independent.*

WHEAT SHIPMENT.—The ship Blue Jacket cleared this week with a cargo of wheat for Liverpool, being the first of the new X line of E. E. Morgan's Sons. The ships Twilight and Helen Morris are now loading in this line, and both have their cargoes fully secured and are nearly full. They will be followed by the new ship Carrollton and the ship Undaunted. The line thus far has been quite a success, and the facilities for shipping various consignments have been availed of by farmers and other large holders. This feature in our wheat shipping trade is likely to become quite conspicuous during the ensuing year.

AGRICULTURAL NOTES.

COLUSA.

Sun, June 14: LARGE CROP—BIG THRESHER. Our old time friend, G. W. Hoag, of Jacinto, one of the best farmers in this State, by the way, will have a very large crop this season. Some of his wheat will go nearly forty bushels to the acre. We understand that he expects to bank, this season, fifty thousand sacks of wheat. We learn, too, that he has recently purchased from the Fish Bros. celebrated shop in Michigan, the largest separator ever brought to this coast. He threshed last year, for days at a time, in the neighborhood of three hundred bushels of wheat an hour, aud this year he will more than average that through the season.

CONTRA COSTA.

Gazette, June 14: WEATHER AND CROPS.—The weather has continued in the highest degree favorable to the growth and gradual maturing of the grain, almost uninterruptedly for a term of more than six weeks; and such weather for such a term has more than compensated for the failure of the usual later rains. The past week has witnessed a wonderful improvement in the grain that is approaching maturity, and there is considerable that was sown early, or upon fallowed ground, that promises a yield equal to that of the best seasons. Next week will find most of the barley waiting for the reapers; but with continuance of the cool weather comparatively little of the wheat in this section will be ready for cutting before the first of July.

CROP REPORTS. — Since last week, James Kelley, for the Briones valley district, has reported 1,090 acres of wheat and 681 acres of barley, as against 1,195 acres of wheat and 450 of barley last year. Some of the grain being cut for hay to save it from squirrels, and crop, on ths whole, not promising quite as well as last year. Wheat estimated to promise an average yield of ten, and barley of fifteen centals.

THE SQUIRRELS.—The squirrels are depredating upon the grain crops to a greater extent than usual this season; and though some of our farmers are making heavy investments in strychnine and devoting much time to the destruction of the pests they will suffer the loss of a large portion, and, in some iustances, the whole of their crops, where they lie adjacent to pasture and unimproved lands. This squirrel nuisance is draining the resources of the people of this and other infested counties at a rate that will soon leave them wholly bankrupt if it is not abated; and nothing effective for its abatement can be done without Legislative authority which should be appealed to either for a compulsory enactment that will secure the total extirpation of the pests, or for a tax levy sufficient to warrant the offer of scalp bounties graded up from year to year on such scale as will make an inducement to hunt down the last squirrel. Our people must realize that the squirrels are a heavier tax on them than all "sack rings," "middle-men," "railroad monopolies," and State tax gatherers combined; and that it is their own business, and in their own power, to adopt means that will remove this exhausting burden.

EL DORADO.

Democrat, June 14: COLOMA CROPS.—Notwithstanding the reports to the contrary that have frequently been circulated, the grape crop at Coloma promises to be equal if not superior to that of any previous year. The peach crop is not as good at Coloma as it is at Gold Hill and some other points, but will not fall greatly short of an average. The vineyard of Robert Chalmers, which is the largest at Coloma, will turn out an enormous crop this year, the increase of bearing vines fully compensating for any damage by frost.

INYO.

Independent, June 7: MORE BLACK ROCK ENTERPRISE.—The boys at the Black Rock Saw Mill have effected a peculiar triumph of art over nature, which for a singular adaptation is worthy of note. In the foot-hills surrounding the mill are seven low, extinct volcanoes, the craters of which vary in depth from 50 to 600 feet. Into one of these the boys by flumes and a ditch, turned, for a time, the waters of the creek, and instead of a dry, red and desolate crater, is now a lake of some two acres in extent, and from six to ten feet in depth. The water is pure and clear, and should by all means be stocked with trout.

LAKE.

Bee, June 7: WORM IN GRAIN.—We learn that a white worm has appeared in the stalks of the growing grain in this county, which is injuring it to some extent.

GIBSON'S RANCH.—Recently we spent several days for recreation at this place, which is situated on the Lakeport aud Cloverdale toll-road, twelve miles from the latter town, and about sixteen from Lakeport. It is in a deep glen amid the mountains, and has about one hundred acres of good valley land suitable for cultivation, beside hill land fit for grazing purposes. A good stream of water flows through the ranch, which is also well wooded. The surrounding mountains are high, rugged, and covered by a dense growth of chemise. Mr. Gibson has a dozen or more splendid dairy cows. For hunting, the vicinity of Gibson's ranch is unrivalled. Rabbits, quail, and doves are abundant; and the mountains are full of deer, besides bears, wildcats, panthers, etc.

Continued on Page 396.]

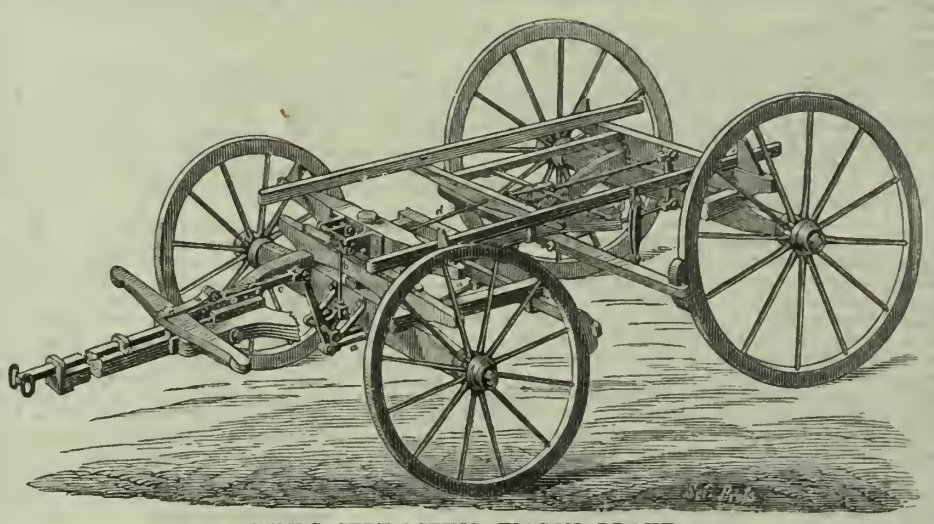
Fisk's Self-Acting Wagon Brake.

We should consider an invention praiseworthy at least which has for its object the simple amelioration of the labors which we impose upon our beasts of burden and of draught, but when that invention also possesses advantages of importance and utility outside of a mere saving of animal strength it then acquires an additional value, which should recommend it to public favor. In all hilly and mountainous countries the most exhausting task of beasts of draught is to hold back upon the wagon while descending hills; this is especially fatiguing and laborious for the reason that our common road vehicles are not constructed with a view to down hill work, but are made to accommodate a direct pull. Farm wagons in the mountainous portions of the country do not last as long as those employed on level roads, for the reason that a loaded wagon is subjected to such severe strains by the unsteady hold back of the team, when no competent brake is used. The ordinary hand brake serves to hold the wagon when properly applied, but it is quite inconvenient and it requires a very nice adjustment in order to properly gauge the breaking force to the load in the wagon and steepness of the declivity.

Mr. Oliver Fisk, of Centreville, Mariposa county, in this State, has invented and secured letters patent, through the SCIENTIFIC PRESS Patent Agency, both in the United States and Canada, for a self-acting wagon brake, an illustration of which is herewith given. By his arrangement the combined action of the gravity of the loaded wagon and the first hold back of the horses upon commencing the descent of a declivity applies the brake automatically, according to the requirements in each case, and locks the brake in position against the wheels, so that they will apply the necessary friction during the entire descent without requiring any further holding back from the team. When the wagon reaches the bottom of the hill the first pull of the team upon the double-trees frees the brakes and the wagon again moves freely.

This is accomplished by means of a pawl and rachet, situated just behind the double-trees. The pawl is so connected that when the wagon begins to move forward by the impulse of gravity, the pawl will be pressed back, and through the levers, c and *a*, and their connecting arms, the brake bars are forced against the wheels. The pawl falls into the teeth of the rack and thus holds the brakes against the wheels until the bottom of the hill is reached, or until the first pull of the horses takes place. By means of a bell crank lever this pull upon the doubletrees throws the pawl up out of the rack, and the action upon the levers and brake-bars is such as to again move the brakes away from the wheels.

For further information address Mr. Oliver Fisk, Centreville, Mariposa, county, Cal.



FISK'S SELF-ACTING WAGON BRAKE.

Cultivation of Jute.

The manufacture of the coarser kinds of paper from jute has been almost entirely monopolized by the city of Dundee, in Scotland. It is said to have been the regeneration of that town, causing it to nearly double its population, and most certainly its wealth, since the breaking out of the civil war in the United States. The Dundee *Advertiser* gives out that the supply is practically inexhaustible. Its consumption in Dundee has risen from 45,000 tons in 1861, to 203,000 tons in 1872. The jute-growing region lies chiefly in Bengal. It is of vast extent, and from being annually inundated by the Ganges and other rivers, produces abundant crops with little labor, and that labor exceedingly cheap. The population is plentiful, and perhaps the most densely crowded in the world.

California is interested in this plant—which, it is believed, can be profitably cultivated in several parts of the State—not alone for the uses of the fibre in the manufacture of paper, but because it can also be worked into a cloth fabric, suitable for grain sacks. The great problem among farmers is how to procure a sufficient number of sacks each season, at reasonable prices, for bagging their grain. The item has heretofore been one of no inconsiderable expense, and it is important for them to be informed of every method suggested for cheapening their sacks. Since there is a jute factory at Oakland, it might be worth their while to inquire into its capacity, with a view to its enlargement, if necessary and to ascertain the practicability of raising a sufficient quantity of jute to furnish it with all the raw material necessary to keep it constantly employed.—*Call.*

Middle-Men and Monopolies.

Report of Department of Agriculture.

Middle-men, although not producers, are necessary and useful in their legitimate sphere; but they become, when using their facilities for combination to depress prices of products in first hands, a terrible scourge, often taking, for a small service, more than half the market-value of a commodity, and leaving for the producer less than the cost of production. This evil was treated fully in the annual report of 1870, but a glimpse of it as it exists in 1873 is given from our returns:

MIDDLESEX, MASS.—The discouragement of farmers arises from the presence of middlemen, who absorb an undue proportion of the profits. As society is at present constructed, these seem a permanent evil, for farmers cannot combine over a sufficient extent of territory, or for a long enough time, to influence the markets.

SUSSEX, N. J.—Another cause of discouragement among farmers is the way they are robbed by middle-men For example: the farmer does all the hard work in seeding the land, gathering the hay, pasturing, foddering, and stabling the cows, and in milking them and delivering the milk at the railway-station. He gets for this, on an average, between 3 and 4 cents per quart, while the parties to whom he sells, with but little trouble, dispose of it at 10 cents per quart. The farmer remains a poor man, or only makes a comfortable living, while the other realizes a fortune in a few years. Again, the milk delivered at the depot does not all reach New York, as thirsty laborers and railroad employees regard the cans as public property, and the loss from short measure is charged to the farmer, who also has returned to him as "sour" what the New York man may be unable to dispose of in summer when milk is plenty.

RICHLAND, OHIO.—The capital causes of discouragement are found in the rings, cliques, and combinations among speculators and middlemen, from the buyer on the street, up through the entire chain of harpies, to the gigantic railroad monopoly; the last mentioned of which nothing less than the strong arm of the Government can grapple with. From the pea-nut boy at the street corner up through the varied ramifications of trade and commerce, we believe an organized scheme exists to force upon the farmer (in common with others) the highest possible prices, while at the same time, by the force of this organized scheme, to compel him to take the lowest figure possible to extort from him for what he has to sell. After this manner does this ruinous railroad combination swindle us all in common. All we ask is a fair field and no favor. Let us have healthful competition, and then give the law of supply and demand full swing, and we are satisfied to take our chances in the great battle of life.

But, in the name of our common humanity, we do protest against organized robbery. At our county-town, which is our main market for farm products, we have two firms who are produce dealers, that is, grain-buyers. But there is no competition between them. It is a combination, and it matters not which party makes the first bid; the other never overbids, but they divide the spoils of each day between them amicably. Hence you see, by thus combining, they compel the farmer to take whatever price they may choose to offer, or haul his grain home again, to be treated in the same style at any future time he may appear in the market.

Thus is the farmer taken by the throat and ordered to "stand and deliver," after the manner of highwaymen, with this difference, that in the latter case you have a chance for your life, but in the former none. The thirty or forty groceries in the town have adopted the same system of tactics, but their blade cuts both ways. They are combined to fix the price of butter, eggs, garden products and the small fruits, and no one is allowed to pay more than this caucus price, but as much less as he can.

So if you go the rounds of the groceries after the first offer you cannot get a higher bid. But while you are compelled to take what they choose to offer, you are also forced to pay the established combination price for what you purchase. Thus the grocery-ring doubly robs the farmer. I care not where you go, whether to the cobbler or the locomotive-builder, and to every trade and mechanic art between, whether to the pop-corn boy or the wholesale merchant, or to any branch of trade between the two, and you will find that they all know to a penny just what their wares are worth, and are allowed to fix this price, and if any body objects they combine to compel it. But how is it with the farmer—without organization, without combination—single-handed and alone, a static anomaly—a target for any or all of the legion of harpooners!

FRANKLIN, IND.—We are not paid for our labor. Our products are mostly below cost. We are the victims of powerful combinations; railroads eat us up with freights both ways. Pork-rings dictate the price of our pork with an absolutism against which we have, as yet, found nothing to oppose. They bought our hogs this year for just what they chose to give, from 3¼ to 3½ cents per pound, and when the market was over they run it to 5 and 5¼ cents, and boasted to our faces of their power to do this.

DE KALB, ILL.—Aside from dairying and wool-growing there is scarcely a farm under the best of management paying more than to cover the expenses of production and working, saying nothing of the interest on the money invested in land, fixtures, implements, and taxes. The sharp practices of those who handle, as middle-men, the products of the farm, operate continually against the interests of agriculture.

WILL, ILL.—Another great cause of dissatisfaction among the farmers is the gambling on the price of grain by the boards of trade in large cities, which has the effect to take too much of the produce to pay for the handling between producer and consumer.

Our Tea Trade.

First among the staples in which our merchants deal, comes the article of Tea. First, because San Francisco from its position and the many lines of communication which centre in it, will sooner or later command the Tea trade of the world—that is of the European and American world. For America, it is and must be the great distributing centre, because of its position with regard to China, and to America, North and South. The Tea trade of Europe and America now is over three hundred million pounds, worth one hundred million dollars per annum; in twenty years it wil be worth

Two Hundred Million Dollars Per Annum,

Equal to more than half what is now the foreign trade of the United States, and its expansion in time to come will be so great as to be hardly estimatable. San Francisco must become for China, the depot and trade-centre of this vast commerce. In the not distant future, ere a quarter of a century has rolled over our heads, our tea business will be so vast that its docks, and wharves, and warehouses, will occupy one entire section of our city, and fleets constantly arriving and discharging will crowd our water front.

The Value of Teas Imported

For the past thirteen years and four months has been $19,105,391, of which $9,677,400 has been the value of the Chinese Tea imported, and $9,438,991 that of the Japanese; from a comparison of this with the total number of pounds, respectively of Chinese and Japanese Teas imported, it will be found that the average number of pounds were as evenly as possibly equal. The average value of all Teas imported into this city, for the time under review, has been 36¾ cents nearly.

The fluctuations in the import value of the Teas, for the past thirteen years, has not been very great, save in one or two years. In 1870, the average value of all Chinese Teas imported here was 27½ cents per pound, and that of Japanese 19¾ cents per pound. In 1861, the average value of all the Chinese Teas here imported fell to 25 cents, but Japanese Teas showed a very considerable advance, having an average value of 30½ cents per pound. In 1862, Chinese Teas, as imported, were valued at an average price of 29½ cents per pound. This was a raise, whereas in the same year, the average value of Japanese Teas had fallen nearly seven cents. During the balance of the period under review, the general average import price of Chinese and Japanese Teas were between 23 cents and 36 cents per pound, with the exception of the year 1872, in which the import value of both Chinese and Japanese Teas averaged 44 cents a pound.—*S. F. Jour. Commerce.*

The Commercial Outlook.

Pending the end of one and the beginning of another harvest year, it is in California begining to be far more natural to take a review of the situation than at the end of the calendar year, for during many seasons past the hopes of the merchant have been bound up with those of the farmer, and during the coming year they will be still more so. The Spring trade having proved unsatisfactory, the hopes of all are centered in the Fall trade. We believe that there will be a good Fall trade and for the following reasons. In 1872, the good Wheat crop came after a period of unwonted ill luck for the agriculturalist, one too, that had lasted for two or three years. During that time the money in the farmer's pockets had been continually draining out of it, and 1872, found the majority of them in debt—many with their farms, etc., mortgaged. The year of plenty, 1872, came to them like a Godsend—it showed an unusual yield and it was on all hands expected that no business year had ever been seen like it in California before.

In anticipation immense quantities of goods were ordered, and it was expected that they would sell like hot cakes. They did not, hence the reaction came. The speculators forgot that the farmers had to clear off their old indebtedness before they would incur any new, and that having paid up old scores for a couple of years, they would not have much ready money left with which to make new purchases. This however was so, and taught by the experience of a few years they did not incur many new debts. Nevertheless the imported goods were landed, paid duties, and were distributed to country merchants on the usual terms. The latter were not able to dispose of them, or disposing of them could not be paid sufficiently soon to settle up accounts regularly with the merchants of this city. The latter finding this to be the case thought it much better to keep their goods in the warehouses than to sell them without a return. This combined with the large export of gold and silver coin and bullion has produced an usual depression in business which has now lasted for well nigh half a year. Will it pass away? This is the question that hundreds of thousands are now asking themselves. We have before stated our belief that it will. The crop this year, predictions to the contrary, notwithstanding, will be fully as large as it was last year, and a much better price will be obtained for it. Last year farmers could not have received on an average more than $1.25 for their wheat, out of which had to be taken the cost of culture. The coming harvest year they will obtain at least 40 cents per cental more for it. This will be equivalent to a sum of $5,800,000 added to their annual profits, and will nearly double the profits of last year. They will consequently be in a position to buy, and their purse stringa being opened, to buy freely. The addition of five or six millions to the yearly amount of purchases may not look very large, but it makes a greater difference than at first apparent, besides it will be really more than doubled, inasmuch as the money which was spent last year in paying old debts, will be appropriated this year to the purchase of new goods. The improvement will extend through every branch and channel of trade, money will flow more freely, industries and manufactures be revived, and the work of building up this city will proceed more briskly than ever. It is satisfactory to be able to predict a prosperous trade year, more especially when it is recollected that prospects were never more gloomy than they were not more than a fortnight ago.—*S. F. Jour. Commerce.*

AN ingenious West Bridgewater man has utilized the destructive, and bent the scratching, power of hens to the aid of agriculture. He places a hen with chickens in a long, narrow cage, just wide enough to fit in between two rows of potatoes, wherein she scratches to her heart's content. The cage is moved along the space between the rows until the ground has been thoroughly scratched over, and the potatoes nicely hoed, and all the bugs eaten.

FLOWING WATER.—Water flowing in a body, such as a river, will run sufficiently swift with a fall of one foot per mile. A smaller river will require a fall of 2 feet per mile. A brook would not keep an open course under four feet per mile, whilst the water in a small covered drain will require at least a fall of ten feet per mile to set the water in motion.

THE OREGON FISHERIES consume $200,000 worth of tin every year for canning purposes.

THE telegraph line from Truckee to Tahoe City is being erected.

Useful Information.

Spectacles.—Spectacles are worn by so many people now-a-days, that we are often inclined to wonder how former generations managed to get on without them before they were invented. The old Greeks and Romans do not seem to have known the luxury; but then, perhaps, their eyes were better than those of the present short-sighted race of mortals. One thing, they had not so many newspapers to trouble them as we have.

But spectacles, after all, are not such a recent invention as might, perhaps,be thonght. They did not come into use in Europe nntil about the year 1300, but they are of unfathomable antiquity in China—not indced, of glass, but of rock crystal. We affect to despise the humble efforts of the untutored Esquimanx, but even they have had a sort of spectacles of their own, long before they ever had an opportunity of seeing any from other lands. They are ignorant of the manufacture of glass, or even of pottery, and they, therefore cannot constrnct a lens; but they have constructed an instrument of wood and bone—an eye shade—which is not only a protection to the visal organs, but assists the visual power of the eyes. The Esquimaux term it *ittee yaya*—far sight—the very synonym of our word telescope.—*Once a Week.*

The Power of Coal.—The Secretary of the West Yorkshire Association of Miners is rather eloquent on behalf of his clients when he says thus:—"A man who is a good, strong, practical miner in some of our thick seams will, by an extra effort, produce five tons of coal in a day, and what will these five tons do? In the first place they will realize for himself 62 cents per ton for getting them; secondly, they will bring to his master nearly $12.50 in profits. Then if we take them to the factory door, they will turn the engine, and find one day's employment for over 2,000 factory operatives, whose average wages at 75 cents each, amounting in the aggregate to about $1,500, will be distributed into every channel of trade, besides realizing to the owners of the factory $1,000 more in profits. Then probably they may be the means of producing from 6,000 to 7,000 yards of calico or other fabric which may be used to the warmth and comfort of 2,000 people, and this may be done from the work of one miner by one day's hard work." What will he say of such a coal proprietor as Earl Dudley, who gives employment to 8,000 or 10,000 of such valuable miners?

Characters as well as Features Transmitted.—In Galton's recent work treating of hereditary influence, he holds that there are certain marked types of character justly associated with marked types of feature and temperament. That the latter are inherited, no one questions, and the same may therefore be inferred of the former. As examples, Galton instances the face of the combatant, which is square, coarse and heavily jawed, differing so stikingly from that of the ascetic, the voluptuary, the dreamer and the charlatan. But still more strongly marked than these are the typical features and characters of different races of men. The Mongolians, Jews, negroes, gypsies and American Indians, severally propagate their kind; and each kind differs in character and intellect as well as in color and shape forming a class of instances worthy of close investigation, in which peculiarities of character are invariably transmitted from the parent to the offspring.

Nutritive Value of Black Tea.—Tea is not only to be considered as a stimulant, but also as nourishment. That people who use tea are able to live longer and do more work on an insufficient amount of food, than those who abstain from the beverage, is attributed to its power of preventing the waste of the body, and in the animal economy may be compared to the financial proposition that a "penny saved is twice earned."

From the large amount of nitrogen it contains, it may also be considered, to a certain extent, a direct means of nourishment. A. Vogel has thought it worth his while to determine how much of his nitrogen is employed in the infusion. The tea examined gave 6.6 per cent. ash, and 25.5 of extract, which was found to contain 2.8 per cent. nitrogen, while the partially exhausted leaves contain 3.58 per cent. From this it would seem that, unless we contrive to devote the whole leaf, we lose the largest portion of the nitrogen.

Foaming in Boilers.—The *Scientific American* in reply to the queries of a correspondent, "What canses foaming in an engine boiler? Is it dangerous or apt to cause an explosion of boiler? Does steam ever descend under the water in a boiler and force the water np and then take its place? answers as follows: "Foaming is caused by the generation of steam more rapidly than it can discharge itself from the mass of water within which it is formed. It may give rise to inconvenience, and even danger, either by carrying water out of the boiler more rapidly than the feed pnmp can replace it, or by entering the steam cylinder of the engine and creating a liability to accident, when the piston strikes upon it, at the end of its stroke, by breaking crank pin, connecting rod or cylinder head. Steam does not get nnder the water, but is sometimes so rapidly discharged, at points on the heating surface under water, as to almost or quite displace the water.

A Cheap and Excellent Fly-Trap.—Now that the hot weather approaches, the following method of trapping flies, as practiced and indorsed by a correspondent of an Irish agricultural paper, will be found useful: A common glass cover, or bell-glass, is the instrument to be used; this has to be tightly covered at the bottom with thick white paper. A circular hole, 6½ inches in diametor, is then cut in the center of the paper, and the glass is placed on three bricks over a plate filled with beer, sugar and a little rum, a moderate distance from the infested spot. The effect is magical; in a few hours the glass is crammed with flies, which having tasted the sweet, fly upward to the light. A common sulphur match, made by dipping brown paper into brimstone, will destroy thousands. The constant hum of insect life will attract all to the glass, and the scent of the rum is sure to induce the most fastidious wasp to enter, as no insect can resist its powerfnl attraction.

Vitality in Wood.—Vitality will sometimes remain in a bit of wood an incredibly long time. Not long ago a Boston lady, having occasion to use a support for an ivy plant which she was raising in a pot, took an old grape-vine cane and thrust it into the earth. Some time afterward, wishing to remove the ivy, she pulled up the old cane and found to her astonishment that it had sent ont shoots and was making vigorous efforts to root itself by the side of the ivy. This bit of grapevine had been used for a long time as a cane, and for years which no one in the family could number, had been laying about the house.

Rapidly Increasing Consumption of Horse Meat in Paris.—There are now forty shops or stalls in Paris devoted to the sale of horse meat as an article of food. During 1872, 9,725 horses, 866 asses, and 51 mules were consumed by the inhabitants. *Les Mondes* says that the animals are prepared for the market in the ordinary way, and that the meat sells for about half the price of beef. The horses are inspected at the slaughter house with the greatest care. It may be noted as an interesting fact that hippophagy is decidedly on the increase, as 2,408,076 pounds of equine meat were eaten in 1872 as against 1,113,024 in 1869.

Good Health.

Is it Safe to Drink Hard Water.

There is a popular prejudice that hard water is dangerous to the health, and on that account we are constantly warned by physicians to beware of it, bnt in England one of the leading authorities on this subject, Dr. Letheby, after devoting many years to an investigation into the properties of the water introduced into English cities, and to a study of the sanitary reports on the subject, comes to the conclusion that moderately hard water is safer and more healthier than soft water. Hard water is not only clearer, colder, more free from air, and consequently more agreeable to the eye and to the taste than soft water, but is likely to absorb organic substances, to sustain the life of zymotic organisms, or to exert solvent properties upon salts of iron or upon leaden conducting pipes. The lime salts exert a beneficial influence upon the animal economy, and even protect the system from dangerous outward influences. Dr. Wilson, of Edinburg, has also collected much valuable material on the subject, and comes to the same conclusions as Dr. Letheby. He takes the ground that the human body requires for its nourishment and support a supply of certain mineral salts, among which carbonate and phosphate of lime play an important part in building up the compactness of the bones and in other functions. We usually obtain phosphate of lime in our animal and vegetable food, but not from the water we drink. Carbonate of lime, however, is not contained in adequate quantity in our solid food, but generally obtains in spring and well water.

It has been incontestibly shown that in mountainous districts, where the water is more or less hard, the inhabitants exhibit the best physical development. On the other hand it is believed that in large cities the mortality is inversely as the hardness of water supplied to the inhabitant. A water which contains about six grains of carbonate of lime to the gallon is suitable for use in all household purposes. As a drink and for cooking food, such a water offers the necessary carbonate of lime for the snpport of life in the simplest, most natural and most digested form, and at the same time more agreeable, fresh and sparkling. It is evident that our preconceived popular notions on the subject of hard water need revising, and that it may be better to use such water than to have recourse to rain or ice water.

Carbolic Acid in Scarlet Fever.—Rubbing the body with hog's fat has the effect of reducing the temperature of the skin, in scarlet fever. Fr. Betz, of Heilbronn, directs to incorporate one or two grammes of carbolic acid into 100 grammes of lard, and, with this, to rub the whole body, excepting the head, two or three times a day, according to the intensity of the inflammation. It prodnces a pleasant feeling of coolness, and keeps the skin softer, and, after each application, the temperature of the skin falls somewhat. The carbolic acid has the effect of killing the germs and spores of the disease.

Worms in the Blood.

The use of the microscope has resulted in a great many important discoveries. One of the more recent and startling facts which have been brought to light, has been the result of an investigation by Mr. T. R. Lewis, Assistant Surgeon of the British Army in India, an account of which is given in the London *Lancet*. Mr. Lewis having been assigned to special duty under the Sanitary Commission for the Government of India, in examining the urine and blood of certain patients, discovered the existence therein of living, active worms, hitherto nnobserved. These worms are one seventy-fifths of an inch in length, and have a transverse diameter of one three-thousandths of an inch. They are so numerous as to be found in blood drawn from any part of the body, and so persistent that they may exist in the system for months or years, without any marked evil consequences being observed. It is said, however, that they may give rise to serious diseases, and ultimately cause death.

The name *Filaria Sanguinis Hominis* has been given to them. It is described as moving about incessantly, coiling and uncoiling itself, and rushing about among the blood corpuscles, in all directions. These worms appear, through the microscope, like incompletely developed snakes. They continue active from six to thirty hours. From certain characteristics, it appears that that they do not exist anywhere but in the blood and urine. Patients in whom these worms have been discovered are also observed to void what is known to physicans as chylous urine.

Dr. Lewis believes that the blood of persons who live in tropical countries is frequently invaded by these microscopic worms, which are not identified with any known species. The chylous condition of the urine is considered to be only one of the symptoms of the presence of the worms, althongh it is the most characteristic. It is believed that some of the hitherto inexplicable phenomena connected with tropical diseases will, ultimately, be traced to this condition of the blood.

Novel Treatment of Dyspepsia.

A very curious method of tr eating dyspepsia is announced as a complete success, by Dr. Brown Séquard. The most extraordinary thing is that the cure forbids the use of medicine, and relies not on articles of diet, but on the regulation of time in taking nourishment. Eat any meat and bread; be rather sparing of vegetables; drink wine and water—but you must not take more than two or three mouthfuls at a time. This homœopathic meal is to be repeated every fifteen minutes or so, not exceeding thirty minutes interval between these mouthful meals. Relief is soon felt; and in ten to twenty days' treatment you may begin gradually to increase the mouthfuls and the time spaces till finally you can take yonr former three meals in peace and digestive felicity. The rationale of this process is not given in the medical record we have seen. But it may be presumed that the disease is referred to the torpid production of gastric juice. A full meal finds no adequate response, and the food weighs heavily on the stomach and passes away to trouble the organism along the whole line of its extension. There is gastric juice for a few mouthfuls, and the patient soon finds the proper measure. Rest and relief from oppression gives the stomach a show to recuperate; and Nature having fair play, effects the cure. Accepting this theory, Thackeray's condemation of lunch and the orthodoxy of two meals a day may be questioned. For gourmands, the axiom may do "that lunch is base ingratitude to your breakfast, and a premeditated insult to yonr dinner." Stomachs that can digest leather, want no rigid rules. But not only does Dr. Brown Séquards' prescription sanction our usual three meals a day, but it rather prefers the usual fourth meal of England, viz.: supper at nine, and a Punda nightcap to woo repose.

Transplanting Hair.—The successful transplanting of skin and flesh to assist the recovery of wounds, has induced some one to experiment on hair, and the result is a process of removing portions of the scalp, with the hair on, from some luxuriant head, and planting on the victim of baldness. A contemporary points out that it may soon become fashionable to wear hair of various hues and shades, thereby producing the most singular and beautiful effects of color; or the hair might be made to appear white, green, blue or red, at the owner's option, and by various ways of disposing it. "Take, in due proportions, hair of all the prismatic tints, rumple it, and immediately you have white hair; comb it in another way, and there is your purple, your ultramarine, your yellow, or any possible hue." If these directions are followed, the recognition of the original color of the head may require the use of the spectroscope.

A foreign medical journal states that bullock's blood is now in great vogue in Paris as a remedy for anæmia and phthisis. Persons of all ranks and ages and of both sexes, may be seen every morning thronging the shambles, to drink the foaming, reeking blood of oxen. Young ladies prefer it to cod liver oil, and swallow it with a gusto. For more fastidious patients an extract is prepared in the shape of pills. Of course many cnres are reported.

Coffee and Quinia.—M. Briquet condemns the common practice of administering quinia, forming a tasteless and insoluble and almost inert salt—the tannate of quinia, from which the stomach has as much difficulty in extracting quinia as from powdered bark. It is, he thinks, one of the worst preparations of quinia. —*Brit. Med. Jour.*

Quinine is rapidly giving place to *Eucalyptus globulus* in the treatment of malarious fevers in the island of Mauritins. During the hot season these fevers are very prevalent there, and this substance given in the form of an infusion of the leaves, is said to be quite as effective in treating them as quinine, and far less expensive.

Domestic Economy.

How to Cook a Parsnip.

A badly cooked parsnip is neither eatable nor digestible, but cook it properly and it is a delicacy worthy of a place on an epicure's table. I shall show how to make the best of this nourishing root,and hope that many readers who have cared little for parsnips hitherto will, after a fair trial, appreciate them as they deserve. No matter what the size or shape of a parsnip, it is invariably good throughout, and very little, indeed, should be wasted in preparing it for the table. The best are those of medium size and even ontline with few brown specks on the bark. They should come into the cook's hands quite clean, and to prepare them thus far it is generally necessary to scrub them with cold water. From the moment they are taken in hand for cooking until they are served on the table there should be no delay of any kind; for the more they lie about after being scraped, and especially if they soak the water, the more they lose flavor and tenderness, for the most precious qualities are solnble, and are soon soaked out, the fibre only being left. Cnt out the crown without waste, remove the extreme tail and any small side roots, and then scrape off the bark and carefully cut the brown specks and streaks. It is better to scrape than pare them, for the outside is richly flavored and highly nutritions. It is scarcely possible to cook large parsnips whole, and, of course, there need be no directions given how to cut them. But it is very important to bear in mind that they should always be cooked whole if possible, and, when they must be cut, the less cntting the better. The more they are cut, the more surely the goodness "flies away, flies away." Now, we want for the cooking a small quantity of boiling water seasoned slightly with salt, in an iron pot snfficiently large for the parsnips. Throw them in, shut them down, and put the pot on the fire. As soon as it boils draw it to the side, and there let it simmer for full three-quarters of an hour, and then try the parsnips with a fork. If quite tender, pour the water off, and shut them down, and keep them on the hob until they are wanted. They may stand an honr without harm, if close shut down, on a hot plate or hob with steam enough of their own to keep them from burning. If cooked slowly in scarcely water enough to cover them, they will be as soft as butter, and of the the most delicious flavor. If cooked in a large quantity of water, and especially if put on in cold or even warm water, they will be comparatively worthless, for the goodness will be soaked out of them, as too often it is soaked out of potatoes and boiled joints of meat.—*Gardener's Magazine.*

Cooking Celery, Carrots and Salsify.

When there is a plentiful supply of celery on hand, it is not only desirable to eat it raw, but also cooked, and there is as much difference between cooked and raw celery, as between cooked and raw tomatoes. In cooking celery, the green stalks can be used as well as those fully blanched, and thus it is an economical process.

Cnt the stalks into pieces an inch in length, and stew in a little salted water until quite tender; then turn away all the water, and pour over it a small cup of rich sweet milk; add to it a good big piece of butter, thoroughly rolled in flour, and boil it up for ten minutes.

This makes a very rich, creamy-tasting sauce, and the whole dish is appetizing and agreeable. Carrots cooked and served in this manner are also very much liked in our family; and those who have never tasted them will find the dish a pleasing addition to their table. We are all of us accustomed to their nse in soups—but few eat them as a table vegetable.

Salsify or vegetable oyster, if cooked and served in the same manner, is also a delicious relish. It can be grated fine, after boiling, and then seasoned with bntter, salt and pepper, and fried like codfish balls.—*Country Gent.*

"Eggs a la Solferino."—Boil some eggs hard, cut them in two, take out the yolks, and beat these up with a little parsley and salt, and replace into the whites, of which cut previonsly the under part a little, so as to make them stand in the dish, and serve up with a nice sauce round them. Let them be quite hot when served.

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SAN FRANCISCO:

Saturday, June 21, 1873.

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FISH FOR CALIFORNIA.—The aquarium car, under the charge of Livingstone Stone, having come to grief at the Elkhorn River disaster in Nobraska, Uuited States Fish Comissioner Baird has ordered Professor Stone back to the East, where another car will at once be prepared, and another attempt be mado to transport the eastern fish to Pacific Coast waters. The experiment up to the time of the accident had been encouraging, and no doubt was entertained of its ultimate success.

ON FILE.—From Potter Valley; "Theo.;" Jottings around San José; Irrigation in San Joaquin Valley; Thirty-three Thousand Pounds—One Foot in a Minute; Gophers—How to Destroy; Wool Circular; Massachusetts Horticultural Society; Lady Bugs; American Pomological Society; Engravings for Irrigated and Unirrigated Wheat; World Self-Rake with Engraving, and Crops in Los Angeles.

CORRESPONDENCE.—Our readers will observe that our columns are just welling over with interesting correspondence from all parts of the State. And yet wo have as much more on hand for which we have not the room, as will be seen by the articles "On File," for future numbers. We can assure our patrons that we appreciate their kindness and efforts in our behalf, and that their respective articles will receive the earliest attention possible.

GIFT TO SCIENCE.—A dispatch from Boston says that Mrs. Quincy Shaw, daughter of Professor Agassiz, has contributed $100,000 to the Museum of Comparative Zoölogy, in which her father is so deeply interested.

Agricultural Progress.

To the agriculturalist entertaining the slightest regard for the future of California, it is not sufficient to know that we are annually adding to the breadth of acres devoted to the cereals, or that a large increase of the gross annual yield is apparent from the records of trade. We must do more than this; we must, on our new and as yet unexhausted soil, practice a system of agriculture that shall not only enable the soil to yield its increase over the product of last year from an increase of acres, but we want those acres to remain as productive for our successors as we find them.

In no other way, or upon any other condition, can it be said we are practicing a perfect system of agriculture, as adapted to California. To enrich our pockets by a direct impoverishment of our acres, is a progress of extremely doubtful utility. We might, in a country in which the soil was valuable only for the gold it might contain, fill our purses even at the expense of a total loss of every portion and particle of soil, and feel that we were progressionists in the right direction, rather than impoverishers of the country.

But the grain or stock grower who follows a system that is impoverishiug his lands, lessening the quantity of grain or pasturage from year to year, though he may follow strictly in the path as marked out by the most scientific culturalists of other lands, he yet lacks the element necessary to constitute him a true agricultural progressionist.

On the Wrong Track.

That the great body of our lands devoted to the cereals, are annually becoming less and less productive, admits of no dispute. We are then upon a wrong track or system in some way; we are either plowing too deep or too shallow; sowing too much seed to the acre or not enough; covering it too deep or too shallow; sowing too early or too late; or we are cropping too severely and frequently, with too little return for the waste of those elements in the soil that alone constitutes its fertility; and we are going on from year to year, bringing new lands under cultivation, only to subject them to this same system of exhaustive tillage.

It becomes the California grain grower then, to consider well the system he adopts; for however old and established it may be for other lands, if found to be at fault here, by its certain impoverishment of the soil, it is not the true system for us. What California agriculture needs, is not this or that man's opinion formed upon any former experience in the country from which he came; but we want the result of a California experience, with a California soil and climate. Then and not till then will wo have entered upon anything like a system of true agricultural progress.

Our State and county fairs should be made far more than they are, the time and opportunity for discussing all subjects connected with the progress of agriculture. Essays should be read and afterwards published and distributed broadcast; encouragement should be given to writers who from practical experience, have made the subjects they treat upon, matters of special, personal investigation. This would tend greatly to the development of something like a true system, and the only one that can be said to be worthy of adoption; all else is mere experiment, and may or may not prove to be an agricultural progress in the right direction.

RIPE FIGS.—On Monday, June 16th, we saw a few ripe figs, the first of the season coming under our notice. At present writing, Wednesday evening, they are more abundant, and sell at the rate of three pounds for 25 cents. This fruit gives promise of superior excellence this year, being of more than ordinary size, and remarkably fine flavor, two qualities that give it its highest value for drying; and we hope there will be a general desire to experiment in this line, till California can show as fine a commercial article as any port of the world.

GOPHERS AND GUNPOWDER.—A Santa Rosa correspondent, T. S., clears his garden grounds of gophers in this wise: With shotgun in hand, takes his position a few feet in front of a new made hole, and the moment the gopher makes his appearance fires at him; then, without stopping to see whether he has killed him or not, immediately stops up the hole; the smoke from the burnt powder and the mutilated carcass of the gopher, has the effect to cause all living ones to leave the premises.

Bear Grove, Iowa.

We have just received a note from D. W. Coter, Bear Grove, Iowa, with subscription money for the RURAL PRESS. Happening he says to pick up a copy of the RURAL of April 5th, thought it just what he needed to enlighten him in regard to the agriculture of California, and particularly the stock growing interest, as he wants to find some country where they do not have to feed their stock on hay seven months in the year. He hopes by noticing the condition of the agriculture of the several counties as given weekly in our Agricultural Notes, to determine as to the adaptability of different sections to the purposes desired.

This is only one of the many instances in which the extended circulation of the RURAL in the Atlantic and Western States, awakens an interest to know more of California than they have yet heard; and the fair, honest tone of its columns is their guaranty that reliable information can be expected from it; hence the immediate subscription for the paper with payment in advance.

Whipple's Sale.

EDITORS PRESS:—The daily papers have published such full accounts of this sale, that a recapitulation seems unnecessary. As a salo of stock, both in the numbers and the quality of the animals disposed of, the late auction at San Mateo, is perhaps unsurpassed, and all who know Mr. Whipple, will heartily congratulate him on his success. The prices obtained were as a rule far in advance of the Eastern prices for the same class of horses, at least such was the opinion of the prominent Eastern turfmen now among us. The grand old stallion "Whipple's Hambletonian" has not far to travel, he being purchased by Alvinza Hayward, for $10,150; "Speculation" realized $8,500, being knocked down to Claus Spreckles, who also purchased some of the most valuable brood mares, including the thoroughbred "Keystone" and "Ashcat," by Rysdyk's Hambletonian, dam by "American Star," g. d. by "Abdallah," thus having two of the best crosses of "Messenger" blood.

Capt. Johnson became the fortunate possessor of the promising young stallion "Hambletonian, Junior," for $5,000. "Speculation, Junior," was bought by Col. Murray, for my old friend George Evans, at $2,900. Evans is so well known in connection with Whipple's stallions, that his starting in business for himself with so promising and useful a young stud as "Speculation, Junior," cannot fail to be a success. The sale commenced with "Emma," in my opinion one of the most promising young mares. The bidders not being warmed to their work, Capt. Johnson obtained her for $1,850. The boys in the yard say she can hold her own with the best of them. She was certainly a bargain, judging from the prices afterwards given.

Among the trotters Capt. Kohl (I think on behalf of Alvinza Hayward) carried off the pick. "Harvest Queen," with a record of 2:29¼; fell to him, for $16,500; "Lady Babcock," $3,000; "O. L. Marshall," $3,100, and several others. In my opinion, the best mare of the two is "Lady Babcock." She has never been trained since she was three years old, when she trotted in 2:57. At the State Fair, last year, I saw her trot low down in the thirties, her length of stride and style of going being perfection. Henry Miller, with his usual discrimination, bought two of the best, if not *the best*, animals on the ground, "Star Queen," $1,225, the mother of "Harvest Queen,"—a perfect roadster and brood mare,—and the beautiful grey yearling filly, by "Hambletonian, Junior," out of "Lady Livingston," half-sister to the celebrated "Lady Blanchard," for $1,600. M. L. Britton also carried off a prize in "Lady Livingston" for $1,450.

The cattle I thought an ordinary lot, the bulls being a bad color and coarse. On the whole they sold well, fetching quite as much as they were worth. The arrangements for the sale did Messrs. Kelly & Co. much credit, and received encominms from all present. Mr. Whipple was present during the sale, and I hope the excitement has had no bad effect upon his health. GEORGE MARTIN.

THE EPIDEMIC.—The epizooty came—as come it must—and past away just in the very nick of time; when we had the least for farm animals to do, and an abundance of green and succulent food for their comfort and early convalescence; so that now we scarcely hear of an epizootic horse in all the land. This is particularly favorable for the timely harvesting of our now unquestionably large crop in nearly every important grain growing district of the State; for this condition of things our farmers are doubtless grateful.

"A SUBSCRIBER" requests us to inform him of whom he can obtain a copy of the Transactions of the California State Agricultural Society for 1872. Robert Beck of Sacramento is the Secretary of the Society and doubtless would give the desired information if addressed.

Bramahs as Layers.

We have received the following from an entirely reliable source, and give it place in our columns at the earliest moment, as showing that the proper keep or management of the Bramahs, secures a good and certain return on the cost of this variety of fowl.

In your issue of the 14th inst., is an article on "Bramahs as Layers," by "Farmer," who seems to denounce the whole fancy fowl affair as an "imposition" and humbug. I have been breeding these fowls nearly a year, and am perfectly satisfied so far, that crossing them with our common and Black Spanish is a decided improvement. The Bramahs are large, healthy, domestic and good breeders; and while they do not give us as large or as many eggs as the Black Spanish, do very well, and fully make up in size and delicacy for the table.

I have a full-blooded light and dark Bramah rooster and a Buff Cochin hen, about thirty Black Spanish and common hens, from which we have raised so far this spring about 150 as fine chickens as I ever saw. The half and three-quarter breeds we find to be excellent layers.

A few weeks since, an article in your paper on "Salting Tomato Plants," caused me a serious mishap. I followed its directions implicitly; digging the moist, mellow earth from around the stem half-way to the roots, and sprinkled in a tablespoonful of Liverpool salt, and recovered nicely. In two days my plants begin to wilt, and in two days more they were dead. I omitted salting two plants which are growing finely. Can you explain this? I assure you it is a serious mishap to one as fond of this delicious vegetable as I am.

There are various speculations as to our grape crop this year; I am fully satisfied that it will not be half a crop. The frost was a hard one, and quite general through the valley, and very many vineyards which had previously escaped were badly frosted; and this will materially effect the crop of next year as well; for this season, the spurs which were left for bearing this year being killed, and the wood or shoots left to supply their place will not bear until year after next. This frost is a serious matter to those who are dependent on their vintage alone.

The apple crop also promises to be small, but peaches will be abundant.

We are now harvesting, and although this is essentially a grape valley, yet we grow good wheat, oats, and corn. Yet our corn crop is this year almost a failure, owing to the severe and sudden transition from wet to dry early in the season, the warm, dry winds of April drying up all surface moisture. We all looked for later rains; these failing, our corn had to be planted in too dry a soil, and but half came up; and that only where the soil was thoroughly plowed and pulverized. This season has been a most peculiar one, and no experience or foresight could provide against its effects; deep and thorough plowing is our only safety." "SONOMA."

Sonoma Valley, June 16, 1873.

Illusions.

We have in hand an exceedingly agreeable letter from "Theo," to which is appended the following P. S.:

"A box of apricots is just now being packed for the "Sanctum Sanctorum" of "Dewey & Co.," with the design to banish, in part, that "illusion" that doth trouble the mind of "Editor 414 Clay street"—or rather to *change* it to a pleasant *reality!*

A "*year and a half*" of faithfulness to one's duty ought surely to entitle one to a "perpetual feast" instead of grasping empty "illusions!" in a land so proverbial for general "shiftlessness," "happy-go-lucky-ism" and ready *shirking* of duty, as we know to our cost."

"Theo" evidently has a clear idea of the sanitary effect of delicious fruit upon the mental and physical health of pent-up city editors. The fruits—for there were more than apricots—were duly received, in excellent condition and luscious in flavor. We are feeling much better. Thanks.

THE TULES.—The observation notes of a gentleman who has just returned from a tour of inspection in the San Joaquin and Sacramento Valleys, are on the whole favorable to good crop prospects. Twitchell Island and Sherman Island are sown with wheat to the extent of about 16,000 acres, and the yield will be from forty to sixty bushels per acre. Work advances rapidly upon the levees. In Sutter County arrangements have been made to complete District No. 5 within four months, and to repair the dam cut by the mob. Forty miles of levee are included in the work. The canal on Grand Island is to be completed and the levees enlarged, while in Runyon District a large levee is to be completed by the Autumn. A substantial levee has been constructed so as to reclaim Brannan Island—District No. 148. An enlargement of all the levees bordering on the San Joaquin is to be made this Fall.—*Call.*

RESIGNED.—D. O. Mills has resigned the Presidency of the Bank of California. Mr. Mills has been President of the bank since its formation. It is stated that Mr. W. C. Ralston, the present Cashier, will assume the position,

HORTICULTURE.

Wild Rice.

Among the indigenous grains of North America, wild rice or the *man-om-in* of the Chippewa Indians, is the most important, as an article of food. It is in constant use by all the Indians of the great northwestern lakes, lagoons and rivers between the Mississippi and Lake Superior. Its form of growth is shown in our engraving.

This plant delights in mud and water five to twenty feet deep. When ripe the slightest wind shakes off the grains. After being gathered it is laid on scaffolds about four feet high, eight wide, and twenty to fifty long, covered with reeds and grass, and a slow fire is maintained beneath for thirty-six hours, so as to parch slightly the husk, that it may be removed easily. Its beard is tougher than that of rye.

To separate it from the chaff or husk, a hole is made in the ground a foot wide and one deep, and lined with skins; about a peck of rice is put in at a time; an Indian steps in, with a half jump, on one foot, then on the other, until the husk is removed. After being cleaned the grain is stored in bags. It is darker than the Carolina rice. The hull adheres tightly, and is left on the grain, and gives the bread a dark color when cooked. The husk is easily removed, after being exposed to heat. In Dacota the men gather this grain, but all other grain the women collect. An acre of rice is nearly or quite equal to an acre of wheat in nutriment. It is very palatable, when roasted and eaten dry.

New Fruit---A Curiosity---Blood-Leaved Peach.

In regarding this new peach, with its peculiar and ornamental foliage, we are led to think in the account that is given of its origin, of the days of the ancient Mythology, when various wonderful transformations or metamorphoses took place in various ways, as described by Ovid and some others of the poets, as, for instance, when Hyacinthus, beholding his beautiful face and imago in a brook, was transformed into the plant which bears his name. The *Gardeners' Monthly* thus describes this vegetable *lusus naturæ* : "The variety was found on the battle-field of Fort Donelson, in Kentucky; and the Southern papers tell that a Southern general, wounded to death, sucked the juice of a peach, and threw the stone into the little pool of his blood by the side of him, from which sprang this tree with blood-like leaves." Mr. Berckmans, in the *Rural Carolinian*, thus describes it: "In the early part of the year its foliage is of a deep, blood-red color, but gradually fades as the weather becomes warmer, when it assumes a dull, green appearance. Fruit medium, slightly oblong, somewhat flattened; skin white, with a pale red wart, and a few pale-red spots or stripes; flesh white, juicy, well-flavored; clingstone; ripens beginning to middle of August. We would class it as very good in flavor, but deficient in size." It is a superior fruit, and when it makes its second growth in August, the leaves are nearly as brilliant as in spring. This would be quite ornamental, we think, on a lawn, similar to the beauty of the double-flowering peach in the early spring, when the branches are covered with masses of its showy and rich, full and thick blossoms. The flowers of the blood-leaved peach are very large, and nearly white, and the foliage as just described, dark-red.

Utilizing the Buckeye.

To turn the Buckeye to useful account is something to be desired. The tree grows wild and profuse and the nuts are cheaply gathered. It is so closely allied to the Horse chestnut, that whatever purpose the latter answers, may probably be found equally serviceable in the former.

Both nuts contain starch. A large factory near Paris is making starch, exclusively from Horse chestnuts. The yield is fully 16 per cent.

When it is for food it is washed in water, in which carbonate of soda is dissolved; and it is afterwards washed in several waterings. Thus, the bitter element is eliminated.

Nothing is cheaper than starch making and starch will pay in California. Let our army of idlers consider the Buckeyes, how they invite to profitable industry, without taxing exertion overmuch.

The Crop Outlook.

Full and complete telegraphic reports concerning the condition of the grain crop now being harvested, were received yesterday from every portion of the State. From these detailed reports we make the following syllabus:

Commencing with the Southern portion of the State, reports from Yreka give the prospect for a good yield as flattering throughout the county. In some portions the crop was damaged by frost, but owing to the increased breadth sown, the aggregate yield will be greater than last year, although the harvest will be somewhat late. Shasta promises from half to three-quarters of a crop of grain, with a splendid yield of fruit and grapes; in Tehama, experienced farmers estimate three-fourths of a crop to the acre, and an aggregate yield fully equal to that of last year; Butte presents a similar showing; Sutter says she will give an average yield on an increased acreage; Colusa Santa Barbara the yield exceeds that of last year; in Los Angeles, nearly one-fourth greater, the grain raised being principally barley; in Ventura twice the number of acres was sown in grain, and the wheat crop is better than last year, while the barley is hardly so good; in Santa Cruz and San Diego, large quantites of grain were cut for hay, and the crops of wheat and barley will consequently be light.

Reports vary from the great grain fields of the San Joaquin Valley. In Kern, the yield of grain promises to be abundant, and, on some farms, as many as six crops of hay will be cut. At Bantas, Modesto, Merced, and generally in Fresno county, the estimates give only half a crop, though the area planted is much greater than last year. Stockton anticipates that San Joaquin county will yield nearly as much grain as last season, and says that the recent cool weather has had a wonderful effect in developing the crop. In Tulare, from one-half to two-thirds an average crop is expected, much grain that was given up early in the spring having filled out, and now yields a good crop. The yield of fruit in this county is enormous; trees are overloaded, and breaking down.

All accounts agree in the statement that the recent cool weather has greatly improved the prospects of the grain, and the tenor of our advices is such as to encourage the hopes of the grain-growers in almost every region of the



WILD RICE (Zizania aquatica.)

estimates do not venture over two-thirds of an average crop, though in some localities the yield is very fine; and from the other upper counties reached by the telegraph—Sonoma, Solano, Lake, Mendocino, Sacramento, Yolo, and Marin—the advices are highly encouraging, the appearance of the grain having improved wonderfully within the past few days. The lowest estimates we have received do not place the average in these counties at less than two-thirds or three-fourths of a crop, while some go higher than this. One of our correspondents, writing from Red Bluff, summarizes the general situation thus: "Taking it altogether, the farmers are very well satisfied." The hay crop, generally, is quite plentiful.

Napa gives varying estimates; the yield will probably reach two-thirds of a crop. Over the bay, reports from Alameda say the crop will be fully equal to that of last year in many portions, but in others, large areas of the grain have been cut for hay. The prospects in Contra Costa are much better than were anticipated; we should judge from our statements received that the yield throughout the county will average three-fourths of a crop.

The Salinas valley promises more than an average crop; Santa Clara "has nothing to complain of," and the crop will be nearly up to the average in quantity, and better in quality. The Pajaro Valley has 30,000 acres in cultivation, with fair prospects. From the lower coast counties we have generally encouraging returns. Harvesting is well along, and the results can be safely calculated. In State The grain is generally represented to be of very good quality.—*Call, 16th.*

HORTICULTURAL OR FLORAL HANGING BASKET. At the late Horticultural Exhibition we saw a new and very bright and pretty ornament of the above kind, which was made of blown glass tubes. These were bow-shaped and arranged in a circle forming the basket. They were united together by a wire towards the top and bottom. The effect, we thought, was quite brilliant in the sun and light. Moss was used all round on the inside as a bed for the plants. It was a simple, light and graceful contrivance. Mr. Carlton Newman of the San Francisco Glass Works is the inventor.

THE PATRONS OF HUSBANDRY.—The farmers' movement in the west is becoming a serious perplexity to party leaders. The number of granges is multiplying rapidly, and the disposition to mingle in political contests bids fair to completely change the relations of the old parties. An official statement of the granges organized previous to May 19th, gives the following interesting facts: Arkansas 15, California 8, Georgia 16, Illinois 431, Indiana 142, Iowa 1,507, Kansas 128, Michigan 24, Minnesota 219, Mississippi 112, Missouri 245, Nebraska 190, Ohio 47, South Carolina 118, Tennessee 13, Vermont 22, Wisconsin 140—making an organization in the United States of 3,377 granges, with an aggregate membership of over 2,000,000.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., June 17th, 1873.

FOR WEEK ENDING JUNE 3d, 1873.*

EXPLOSIVE COMPOUND OR GIANT POWDER.—Egbert Judson, assignor to the Giant Powder Co. and Atlantic Powder Co., S. F., Cal.

ORE FEEDER FOR GRINDING AND CRUSHING MILLS.—Charles P. Stanford, S. F., Cal.

RAILROAD SWITCH.—John T. Linthicum, assignor to Ira Gilchrist, Vallejo, Cal.

HYDRAULIC ELEVATOR.—Timothy Stebbins, S. F., Cal.

TELEGRAPH POLES.—Thomas J. McCarver, James Athey and Berryman Jennings, Oregon City, Oregon.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

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The Crops.

The *Record* has received further and later returns in reply to its circular making inquiry as to the condition, yield, prospect and extent of the wheat crop. The figures given in our tabulated statement of returns, printed on the 3d instant, have to be materially increased. The most important item is the report from Sherman and Twitchell islands, in Sacramento county, from which the crops will reach, at the lowest figures given us, the imposing aggregate of 45,000 tons. The total figures for this year's harvest, as shown in the subjoined table, compared with the last, vary widely from popular anticipations recently entertained. Among the correspondents to whom the *Record* and its readers are under obligations for the favor of communicating the information upon which this tables is based, may be named such well known names as E. Hallett, of Butte; Dr. Glenn, of Colusa; W. H. Baxter and J. M. Thompson, of Napa; C. F. Reed and N. Wykoff, of Yolo; William M. Landrum and B. Cahoon, of Santa Cruz; Dr. J. Strentzel, of Contra Costa; G. N. Swezy, of Yuba; J. M. Dudley, of Solano; William B. Hay, of San Joaquin; John Mantez, of Monterey; G. W. Pennebaker, of Visalia, and a score of others, all of whom it is not necessary to name. The estimates of these leading agriculturists, many of them raising wheat by the ten thousands of centals, are substantially correct. They enable us to show that the California wheat crop of 1873-4 is greater than that of 1872-3 by more than 500,000 centals, or 25,000 tons:

COUNTY.	1872-3.		1873-4.	
	Acres.	Yield Centals.	Acres.	Estimated Yield.
Alameda....	68,000	407,000	68,000	408,000
Butte.....	46,500	280,000	50,000	30,000
Colusa.....	100,000	600,000	115,000	517,000
Contra Costa	52,000	311,000	57,000	342,000
El Dorado..	9,500	57,000	10,000	60,000
Fresno.....	10,500	74,000	20,000	110,000
Kern.....	5,000	35,000	5,000	37,000
Lake.....	4,000	19,000	4,000	24,000
Marin	2,000	11,000	3,000	21,000
Mendocino..	7,000	35,000	9,000	63,000
Merced.....	200,000	1,400,000	250,000	1,200,000
Monterey...	155,000	934,000	170,000	1,190,000
Napa.....	31,500	157,000	33,000	231,000
Placer.....	16,000	96,000	20,000	100,000
Sacramento.	8,500	51,000	10,000	45,000
Tule Isls..	.....	.....	30,000	900,000
San Joaquin	186,000	1,303,000	225,000	1,262,000
San Mateo..	35,000	210,000	35,000	210,000
Santa Clara.	142,500	855,000	142,000	810,000
Santa Cruz..	8,000	49,000	20,000	110,000
Shasta.....	7,500	46,000	10,000	50,000
Siskiyou....	8,000	48,000	8,000	40,000
Solano.....	340,000	1,701,000	350,000	1,635,000
Sonoma	102,500	512,000	135,000	910,000
Stanislaus..	340,000	2,125,000	400,000	1,200,000
Sutter.....	60,000	360,000	75,000	415,000
Tehama	60,000	360,000	65,000	360,000
Tulare	11,500	81,000	30,000	105,000
Tuolumne..	5,000	30,000	6,000	36,000
Yolo.....	70,000	420,000	8,000	410,000
Yuba.....	13,000	80,000	13,000	58,000
S. Barbara..	9,000	54,000	10,000	70,000
Total.....	2,114,000	12,701,000	2,448,000	13,239,000

In addition to the excess of yield the present season over last, it must be remembered that we shall go into the new crop year with more than 25,000 tons of old wheat on hand, and that the increased requirement of tonnage to move the Oregon surplus will exceed 25,000 tons. As a summary, then, we see that the combined surplus of California and Oregon available for export in all the harvest year of 1873-4, including old wheat, reaches the aggregate of thirteen and a half millions of centals, or 675,000 tons. It is obvious not only that ship owners are masters of the situation again this year but that it will again be difficult to procure from all sources, even with the attraction of the high freights now current, a supply of tonnage adequate to the movement of the surplus.—*Sac. Record.*



Coming Home.

The welcome lettor is read—thrice welcome, for it says, "I will be home to-night." How softly bright the mother's eyes, as she busies herself abont the house, making it fresh and inviting for the absent one. How merrily the children shout and caper, as they are told that "Papa is coming home to-day."

Mother prepares his favorite dish for the late tea; sister Anna practices over the old Scotch ballad papa loves best, and Rob and Hattie can scarcely wait for nightfall.

The hour comes at length, and brings papa ladon with all those parcels which are so delightfully mysterious to the children.

What a glad shout and rush to greet papa!

What a flood of happy questions and answers!

What an undoing of the parcels, whose wrappings are so troublesome, and whose strings *will* knot!

Then the pet rabbit and Miss Dolly's new dress, made by Hattie's own tiny fingers, are shown, and much admired.

The evening swiftly glides away, the good nights are said, and all go to rest, while the old clock ticks on more contentedly than ever; now the master is home again; or at least, mother thinks so, as she lies listening to its sounds a few moments before falling asleep.

A Contrast to the Above.

"Jimmy, father is coming, lets run;" and two dirty, ragged, little creatures hurry out of the basement into which a drunken man stumbles the next moment.

Finding no one there but his poor miserable wife, he begins the usnal order of things by cursing and abusing her.

The abuse, at length, reaches blows, and the wretched woman escapes into the street calling for help—her husband following her.

"That's Jim, I'll be bound," mutters the policeman. as he buttons up his coat and starts up the narrow, dirty street in the direction of the sounds, while the children cower tremblingly in the corner, now and then peering forth to see if "father is coming." Loud, fierce oaths reach their ears, and soon they see the "star" shining, and know by that the policeman is coming back, and, by the noise and confusion that he is taking "father" to the station.

When they are quite past, and ont of sight the frightened little objects draw a long breath of relief, and come out of the corner, and go back to the hovel they call "home," comforting themselves with the assurance that "father won't be home tonight, anyway."

Fun at Home.

Don't be afraid of a little fun at home, good people. Don't shut up your honses lest the sun should fade your carpets, and your hearts lest a heavy laugh should shake down some of the musty cobwebs there. If you want to ruin your sons, let them think that all mirth and social enjoyment must be left on the threshold when they come home at night. When once a home is regarded as only a place to eat, drink and sleep in, the work is begun that ends in gambling houses and degradation. Young people must have fnn and relaxation somewhere. If they do not find it at their own hearthstones, it will be sought in other, and perhaps less profitable places. Therefore let the fire burn brightly at night, and make the home ever delightful with all those little arts that parents so perfectly understand. Don't repress the buoyant spirits of your children ; half an hour of merriment round tho lamp and firelight of home blots out the remembrance of many a care and annoyance during the day, and the best safeguard they can take with them into the world is the unseen influence of a bright little domestic sanctum.

Avoid those who take pleasure in exposing others to contempt by jeering, mocking, or mimicing. Keeping off from such as from the heels of a horse that kicks all near him.

High-Heeled Boots for Ladies.

We have before commented npon the absurd fashion of high heels for ladies' foot-gear, and we see that mischievous device is attracting the attention of medical men in England. A London surgeon, Mr. P. Hewlett, reports several cases of serious fractures of limbs indirectly cansed by these heels, which had tripped up their wearers; and he refers also to the distortion and injury to the foot that they often induce. The following extract from his remarks on the subject we commend to the careful consideration of cur fair friends, who will not, we trust, be so inconsistent as to follow a fashion that is at once foolish and pernicious:—

"Ladies will, for the most part, wear them; but they could not do a worse thing, for their feet are placed in a difficult and most unnatural position. They are very tenacious abont this fashion, but you must be as tenacious against it; the number of accidents in consequence is great.

To show how very tenacious ladies are on this point, last year I was sent for to see a young lady in one of our London hotels. She wished to consult me about her foot. On seeing it I thought its stato depended upon her boots, and I asked to see them. The boots were brought in by the lady's maid, but the only thing I could observe about them was the immenscly high heels. I said: 'It is the high heels of your boots that causes the mischief, and unless you diminish this I can do nothing for you.' She became quite angry, and said she could not alter them. 'I cannot do it and will not.' Suddenly she again toned down, and said: 'Pray, sir, what would people say if they saw me walking about the park without high heels?' I said: 'It is heels *versus* brains. If you have brains you will cut off the heels; if you have no brains you will continne to wear them.' She fortunately had brains, cut off the heels and her foot got quite well."

Another authority remarks: "Fashion is at best a cruel tyrant; but the whole history of her capricious rule does not exhibit a grosser violation of natural laws, and a more unpardonable assault on the beauty and health of woman, than the invention of *high-heeled boots*."

Gardening in old Age.

A writer in the *Cornhill Magazine* recommends to one in the autumn of his life, to take to gardening, if he has not already experienced its pleasurcs. Of all occupations in the world, it is the one which best combines repose and activity. It is not idleness; it is not stagnation; and yet it is perfect quietude. Like all things mortal, it has its failures and its disappointments, and there are some things hard to understand. But it is never without its rewards, and perhaps if there were nothing but successful cultivation, the aggregate enjoyment would be less. It is better for the occasional shadows that come over the scene. The discipline, too, is most salntary. It tries our patience, and it tries our faith. But even in the worst of seasons, there is far more to reward and encourage, than to dishearten and disappoint. There is no day in the year without something to afford tranquility and pleasure to the cultivator of flowers, something on which the mind may rest with profit.

Female Society.—What is it that makes all those men who associate habitually with women superior to those who do not? What makes the women who are accnstomed to and at ease in the society of men superior to their sex in general? Solely because they are in the habit of free, graceful, continued conversation with the other sex. Women in this way lose their frivolity, their faculties awaken, their delicacies and peculiarities unfold all their beauty and captivation in the spirit of rivalry; and the men lose their pedantic, rude, declamatory or sullen manner. The coin of the understanding and the heart changes continually. Their asperities are rubbed off, their natnres polished and brightened, and their richness, like gold, is wrought into finer workmanship by the fingers of women than it could ever be done by those of men.

Reputation.—There are two modes of establishing our reputation, to be praised by honest men, and to be abused by rogues. It is best, however, to secure the former; because it will be, invariably, accompanied by the latter. His calumniation is not only the greatest benefit a rogue can confer upon you, but it is also the only service he will perform for nothing.

A Lady's Opinion of Picnics.—A young lady having been invited to attend a picnic, thus declines, which will be fonnd to be the experience of a great many people: If to broil and to bake, and to butter; to bottle, to slice and to pack; to get off before you are ready, and before you are ready come back; if taking a soat on a pie-dish and losing your meat in the grass, and having bugs drop in your pudding, and snails take a bath in your glass; if toads holding hop on your sandwich, and beetles inspecting yonr bread, when brambles and thorns catch your feet, and worms pelt down on your head; if scattering in every direction to seek for foliage and cover, and find you have been outstripped by some Sarah Jane and her lover; if, in getting up all the fragments of such an Arcadian feast, you can't tell whether 'twas most like entertainment for man or for beast; if that kind of thing is enjoyment, in longer or shorter measnre, and yon're simple enough to believe it so, why then help yourself to the pleasure; out for me (I speak from experience, the subject I've closely pnrsued), the reply will be found in the Scriptures, "I pray you to hold me excused."

The Will to be Trained not Broken.—Men often speak of breaking tho will of a child; but it seems to me they had better break the neck. The will needs regulation, not destroying. I should as soon think of breaking the legs of a horse in training him, as a child's will. I would discipline and develope it into harmonious proportions. I never yet heard of a will in itself too strong, more than of an arm too mighty, or a mind too comprehensive in its grasp. too powerful in its hold. The instruction of children should be such as to animate, inspire and train, but not to hew, cut and carve, for I would always treat a child as a live tree, which was to be helped to grow—never as dry, dead timber, to be carved into this or that shape, and to have certain mouldings grooved upon it. A live tree, and not dead timber, is every little child.

The World is What we Make It—Out of internal and external senses—a vale of tears and scene of gloom, or a snperb landscape with transcendent points. There is light, and anon! almost instantaneous shadow, but the artist will blend the two and enhance the significance. The skill of appropriation is a true accomplishment. No ono can give it to us, but we can foster and cultivate the same. The reason we so often fail is that we ignoro what is within our grasp, and despise small gains.

What a man is, is not what he is on Sunday, when the organist plays to him, and the minister plays to him, and all good influences play to him; but it is what he is in the week-day, when his life is wearing and working and weaving for him the garment in which he is to stand and be jndged.

Industry Idispensable.—Man must have occupation or be miserable. Toil is the price of sleep and appetite,—of health and enjoyment. The very necessity which overcomes our natural sloth is a blessing. The whole world does not contain a brier or a thorn which divine mercy could have spared. We are happier with the sterility, which we can overcome by industry, than we could have been with spontaneous plenty and unbounded profusion. The body and the mind are improved by the toil that fatigues them. The toil is a thousand times rewarded by the pleasure whi·h it bestows. Its enjoyments are peculiar. No wealth can purchase them, no indolence can taste them. They flow only from the exertions which they repay.

Curiosities in Natural History.—The flea, grasshopper and locust jump two hundred times their length—in the ratio of a quarter of a milo to a man. In the migration of birds the males arrive several days in advance of the females. Fish and birds can see through the nictiating membrane that they draw over their eyes to screen them from the sun. The bones of fish are hollow, and filled with air instead of with marrow. It is said that perfectly white cats are deaf. The Angora cat has one eye blue and one yellow. Black rats are used in Germany to exterminate the gray rats.

It is not so much the mental vision that is required to discern truth and goodness, as the moral courage that dares openly to espouse it.

Every desire is a viper in a bosom, who, while he was chill, was harmless; but when warmth gave him strength, exerted it in poison.—*Johnson.*

Young Folks' Column.

The Old-Fashioned Boy.

Oh, what shall we do with the queerest of boys?
He looks with disdain on the weakness of toys;
While comrades are playing he never will budge,
But he sits in a corner as grim as a judge.

He sighs for a cane, and he wants a high hat;
He pines for a vest, a watch and all that;
He prattled of shaving when schooldays began,
This dear little, odd little, dry little man.

He promised his mother a house and some land,
And twenty-five servants or more to command,
He keeps his own trunk, on his own little sheif,
And he writes funny letters, and all to himself.

His age—would you think it?—is only just four;
You'd say, by his ways, he was forty or more;
He begs to sit up when the rest go to bed—
Say, what's to be done with this wise little head?

He has a wee sister, who's just come to town;
He came and he looked at her in her white gown,
Then bade her "good morning;" he made it a point
To show that his nose wasn't put out of joint!

He talks of a gun, and a pistol that shoots;
His feelings are strong on the subject of boots;
They call him "old-fashioned," and so let him stay,
So long as he's good in the old-fashioned way.

Happy Hattie.

Hattie was a little girl about ten years old. Her father owned a small farm, and did a great deal of work upon it himslf. Her mother helped as well as she could; but her mother was only feeblo, and had a good deal of pain, and kept in all the cold wet weather. Hattie's little brother Frank was about three years old, and liked nothing so well as going with his sister to feed the bens, or to give a monthful of sweet hay to the donkey.

But what made Hattie so happy? She had to work hard, and to fare hard, was up early and up late, and her mother left a good many household matters in her hands. She did not dress very gaily, but wore clothes that were thinner, and yet very common, in the snmmer.

I will tell you what made Hattie happy. She loved her mothcr very much, and never thought she could do enough for her; and she loved her dear father and little Frank. In fact Hattie had a very loving heart ; and it was that which made her so happy. She was never thinking about herself, but how she could do this for her father, or the othor for her mother, or how she conld pleaso little Frank.

It was always the same, no matter what the weather, or the time of tho year. The wet days did not make her cease to love her mother, or father, or brother. Thcy rather drew her on to some plan for pleasing them all. She would get dry shoes for her father, or a game for her brother, or some nice thing for her mother.

Hattie had found the key to the happy world—*not thinking first about herself.* Happy Hattie.

The Boys for the Times.

Wo like an active boy—one who has the impulse of the steamboat in him.

A lazy, plodding, snailed-paced chap, might have got along in the world fifty years ago, but he will not do in these times. We live in an age of quick ideas; men think quick, eat, sleep, conrt, marry and die quick—and slow coaches are not to be tolerated. "Go ahead, if you bust your boiler!" is the motto of the age, and he snceeeds the best in every line of business who has the most of "do or die" in him.

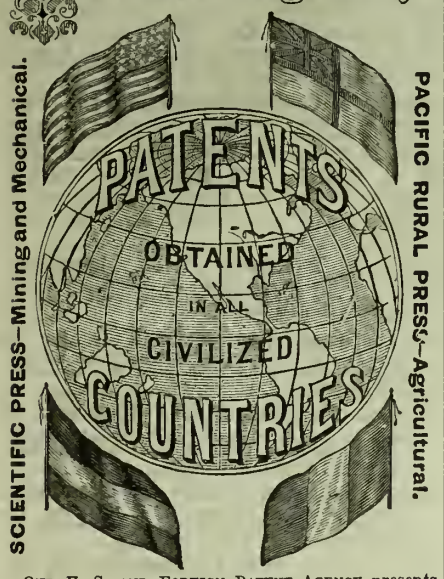
Strive, boys, to catch the spirit of the times; be up and doing always, not gaping and rubbing your eyes, as if you were half aslcep; but be wide awake for whatever may turn up, and will you be somebody before you die.

Think, plan, reflect as much as you please before you act, but think quickly and closely, and when you have fixed your eye upon an object, spring to the object at once.

But, above all things, be honest. If you intend to be an artist, carve it in the wood, chisel it in the marble; if a merchant, write it in your ledger. Let honesty of purpose be your guiding star.

A Boy's Answer.—In one of the primary schools of Boston the other day, during a reading losson, the name John ——, Junior, occuring, the teacher asked what it meant. Only one hand was raised—a little boy whose eyes were beaming with the thonght of bcing the only one of all his mates who answered. The teacher asked him what it meant, and the answer came prompt and decisive: "One who was born in Jnne."

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Tbe gray freestone from these qnarries is considered far superior to that of any other within practical distance of San Francisco. It is readily worked and imperishable.
For samples we refer to the first story of tbe City Hall, Oakland, ereoted four years since, and the window caps and sills, and other finished work in the Deaf and Dumb Asylum, Oakland; in the Oakland Cemetery around the lot of J. S. Emory. Also small specimens in tbe offices of Augustus Laver, (Arcbitect of the S. F. City Hall) Kearny St.; David Farquaharson, Architect, Cor. Kearney and California St., S. F.
Orders may be left with George W. Thompson, on the premises, or A. T. DEWEY, SCIENTIFIC PRESS office, No. 338 Montgomery St. S. F., where samples of tbe stone may be seen.

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The best machine to CLEAN GRAIN in the world.
A superior PAPER FILE HOLDER.

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17 New Montgomery street, San Francisco.

[Continued from Page 389.]

There are trout in the creek, some distance below the ranch. When the hunting season arrives, we know no better place for a few days' sport than the vicinity of Gibson's.

MARIN.

Journal, June 5: THE LAST FINISH.—No farmer, no country, should part with any crude hulky article of little value, if it he possible to give it the last finish, the highest price. Keep the heavy, crude material at home. Send away what is light, compact, valuahle. By this you save in every way. Save your soil, save in freight, save in income. Suppose you take ten tons of hay to market and get two hundred dollars for it. You have five heavy loads to draw, and you have robbed you farm of twenty thousand pounds of good material. But if you feed it to your cows, and sell the butter only, you will have four hundred dollars in coin, with only one load to market, and at two hits a pound, will only have taken off less than a ton. It is the same with everything. Don't pay freight on rubbish that is worth more to your farm than in the market. Finish and concentrate all you have for sale.

MONTEREY.

Democrat, Jnne 14: THE CROPS. — There is every indication that the promise of more than an average crop in this valley will be fulfilled. The frost lately reported did no damage of account. Signs of preparation for harvestiug are visihle everywhere, and the farming community is in excellent spirits.

Index: The weather has continued so favorable for the crops in this section that many are sanguine that there will he a full yield: certainly it will he over an average one, and at the same time exceedingly advantageons to the farmers. The straw is small and rather short, while the heads are long, plump, and well filled, materially assisting the harvesting and threshing operations.

NEVADA.

Union, Jnne 11: CROPS.—Most of the farmers hereabouts are harvesting their hay. The crops are rather lighter than could he wished, hut the weather is so favorable to the harvesters that the hay save will be most excellent in quality. The new hay brought into town is of the richest green color, and is perfectly cured.

SACRAMENTO.

Telegraph, June 14: The new vineyard of the Natoma Water & Mining Company, planted out this spring, at Alder Creek, is growing finely, and is so situated that the whole one hundred and thirty acres can be irrigated at will.

The crops in this vicinity have filled out finely, and will be an average crop. On all summer-fallowed land, the yield will be a good one.

SANTA CLARA.

Mercury, June 13: A LARGE GRAPE VINE.—At the corner of San Antonia and Market streets may be seen a large grape vine of remarkahle heauty. It stands six feet high and measures two feet in circumference, and is of a uniform thickness from the ground to the top of the vine. This beantiful vine has sent forth large branches which have formed a delightful arbor of more than thirty feet in length, making a pleasant shade during all hours of the day. A few feet distant from this arhor is another vine of less size, which has a hranch ahout thirty-five feet long. These vines are growing rapidly, and in a few years will become objects of considerahle interest.

FISHING.— Fishing is hecoming a popular amusement with our people. The heautiful streams in the mountains around onr valley abound in fine trout this season of the year, and piscatorial sports afford recreative pastime for those who, becoming wearied of the daily routine of city life, wish to recuperate their exhausted vitalities in the invigorating air of the mountains. Two young men, of the name of Wilson, took a trip, a few days age, to Smith's creek, beyond San Felipé valley, and after fishing two or three hours, came away with one hundred and thirty fine trout. These young men further report that these fish abouud in large quantities in this little brook, which runs through a dep cañon, and that they are the finest specimeus of the mountaiu trout.

SAN JOAQUIN.

Argus, June 14: THE HARVEST is progressiug and some farmers are well pleased with the yield of their hroad acres, esspecially those who had taken the precautiou a year ago to summer-fallow a portion of their lands, or who plowed deep and thoroughly pulverized their soil with the harrow last winter. We are informed that some such fields are now turning out as high as twenty-five hushels to the acre. Good cultivation will undoubtedly pay even upon the plains, and we advise all to give it a trial in future seasons.

SONOMA.

Argus, June 13: OUR WOOL TRAFFIC.—Oue of the many productive interests of Sonoma and the adjoinin? counties is the wool husiuess. Just now the spriug clip is coming in, and the wool business is at present in its prime. Speculators and bnyers are of course on hand, and the article of wool finds a ready cash sale at the rnling market price, which is 21@21½ cents per pound, the latter quotation for a superior article. At least 400,000 ponnds of wool will pass through Petalnma this Spring, either for sale here, for storage, or shipment by rail. This morning we noticed at one time five wagons loaded with wool, on the way to the different warehouses. Thus far, there have been 75,000 pounds of wool sold by buyers in Petaluma, and one Eastern man has purchased 20,000. A good portion of our wool has hecn bought hy the Sacramento woolen mill, and the agent of that mill is expected in this city soon to contract for a still greater qnantity.

MILL BURNT.—We learn that the sawmill, situated on Elk Creek, in Colusa county, and owned by Williams, Cohn & Newman, was entirely destroyed, together with one hundred thousand feet of lnmber, by fire on Friday of last week. We have heard no estimate of the loss, but it will come up in the thousands. Cause of the fire is unkuown. The mill will be rehuilt immediately.

SUTTER.

Banner, June 14: HARVESTING.—Harvesting has now commenced iu earnest, and our ranchers are piling up the golden grain in such quantities as to make a "good year" ashamed of itself. Sheriff McClure, who was down about Nicolaus last Wednesday, informs us that the crops in that neighhorhood were turning out splendidly, as well in fact, if not hetter than they ever did. We have all along thought the grain crop in this couuty would turn out much better than some have persisted it would. As a grain-growing county Sutter county is not excelled in the State.

BARLEY. — Capt. Delvinne, whose place is eight or ten miles helow this city, has sold one hundred and fifty tons of his new barley crop to parties in Sacramento, for $1.30 per 100 pounds, to he delivered at Star Bend.

FRUIT ON THE PLAINS. — We are told that appricots, peaches and nectariues growing on the plains west of the Feather river, are doing finely, and besides a few who will have frnit to sell, many families will have euough for their own use. Some of them had apricots ripe two weeks ago, aud are canning them up for their own use. Plums, apples and pears do not thrive as well on the plains; however some succeed in raising splendid apples.

TEHAMA.

Independent, June 14: Mamy of our farmers who contemplated commencing cutting their grain on Monday last, have concluded to wait another week. From a hasty glance the grain looks ripe enough for the header, but upon a closer inspectiou many spots were fouud whioh are quite green.

YOLO.

Mail, June 11: WEATHER continues warm in this locality; hut the eveuings are comfortahly cool. Harvesting going on in the country, and farmers scarce on our streets. But little doing in coin.

OREGON.

Oregonian, June 14: The *Gov. Grover* now discharges her freight for Corvallis at the Farmers' Warehonse.

The Marion County Farmers' Clnh was in session at Salem with a full attendance last week.

About six hundred head of beef cattle and a thousand head of sheep have heen shipped helow from the Dalles the past month.

The Salem Farmers' Club, at its next meeting, will discuss the following: "*Resolved*, That dairy farming cannot he made generally successful in the Wallamet Valley."

Mr. John D. Wilson, of Yoncalla, informs the *Pantagraph* that grain is heing shipped in considerahle quantities from that place. Indications are good for an ahundant harvest.

At a recent farmers' meeting in Linn County, it was snggested that the cluhs, all over the State, seek out and assist in advertising every man or company engaged in manufacturing from raw material produced in this State.

Twenty-seven wool-growers of Douglas County have resolved not to sell their wool for less than 30 cents per pound, and to hold it nntil the next meeting of the Convention, on June 28th. The 27 men own over 16,000 sheep.

An effort is being made to have premiums of $50 each offered at the next Fair for the best short-horned hull, and the hest long-wooled sheep. Five dollars will he given for the hest five pounds of hntter, and a small premium for the hest gallon of huttermilk.

C. P. Burkhart, of Linn County, writing to the *Farmer* nnder date of Jnne 3d, says the question of building warehouses in Albany hy the farmers, and having them controlled by the farmer and wheat raiser, is no longer in douht, as the enterprise was made manifest on yesterday. About one hundred farmers assembled at the Court house, and elected a Board of Directors, who will immediately proceed to erect one or two very large warehouses in the course of six or eight weeks, so as to be in time to receive the present crop in store.

The Farmers' Clnh at Springfield, at a recent meeting, passed the following: "*Resolved*, That our delegates to the State Convention, which will meet Juue 10, 1873, are hereby authorized to iutrodnce a resolution similar to the following: '*Resolved*, That we, the farmers of Oregon, do pledge ourselves to vote for no man as a memher of our next Legislature, who will not pledge himself, if elected, to vote for the enactment of a law regulating fares and freights on the rivers and railroads of Oregon."

LOFTY RYE.—Mr. C. L. Sheppard, residing on Columbia Slough, laid on our table Saturday, a small hunch of rye which had been taken from his farm. This grain was pulled up by the roots, and from the extreme tips the stalks measured *eight and one-third feet*. The hunch was taken from an acre of the grain, the average hight of which will not fall short of seven feet. Last fall the field was sowed in oats for pasturage, and the rye was accidentally mixed. It was closely pastured until January, and will now produce, in rye and oats, forty bushels.

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Laws Concerning Corporations.

[Under the New Code—January 1, 1873.]

GENERAL PROVISIONS APPLICABLE TO ALL CORPORATIONS.
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WATER AND CANAL CORPORATIONS.
HOMESTEAD CORPORATIONS.
MINING CORPORATIONS.
LAND AND BUILDING CORPORATIONS.
ALSO, MINING PARTNERSHIP LAW.

A pamphlet containing the above provisions concerning Corporations has been printed from the Statutes of California. It furnishes those who wish these special laws an opportunity of obtaining them for the small sum of 25 cents (post paid). Address, DEWEY & Co., Publishers, and Patent Agents, S. F.

Choice Bred Fowls, and Eggs for Hatching.

I will spare a few EGGS from my Imported Stock of Poultry, consisting of

LIGHT AND DARK BRAHMAS,
BUFF AND PARTRIDGE COCHINS,
SPANGLED GOLDEN AND SILVER POLISH,
SPANGLED GOLDEN AND SILVER HAMBURGS,
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SILKIES, BLACK, RED GAME,
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—ALSO—

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Gregg & Bow, Wilmington, Delaware;

And other first-class makers, which we are prepared to sell on the most reasonahle terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

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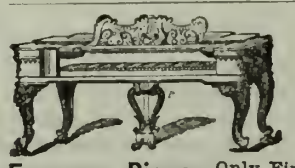
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Under this head will be found the names and address of some of our most enterprising and reliable business men.

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Linsley & Collins, Commission and Produce Merchants. Particular attention given to the sale of Dairy Produce, Smoked Meats, Lard, Poultry, Eggs, etc. 507 Sansome st., Niantic Building, San Francisco.

T. R. Church, 223 Montgomery Street, (Russ House Block,) San Francisco. Wholesale and retail dealer in Mens', Youths' and Boys' Fine Custom-made Clothing and Furnishing Goods; also Trunks, Valises, Bags, etc.

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Henry A. Gullixson, Importer and Dealer in Carpets, Oil Cloths, Matting, etc., No. 687 Market street, San Francisco.

Lewis & Pander, Dealers in Stoves, Ranges, Tinware, and all kinds of Kitchen Utensils. For the best and the cheapest, go to No. 32 Geary street, between Kearny and Dupont, S. F.

Wm. J. Heney & Co., Importers and Manufacturers of Rich, Medium and Low Priced Furniture, Bedding, Dental and Barber Chairs, Piano Stools, etc., 725 Market street (Bancroft's Building), San Francisco.

San Francisco Wire Works, 665 Mission St., S. F. C. H. Gruenhagen & Co., Manufacturers of all kinds of Wire Work for Gardens, Cemeteries, Flower Stands, Baskets, Tree Boxes, Arches, Bordering and Railing.

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Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Diff. Bet. Mail & Tel	Diff. Bet. S. F. & Tel.
APR. 5 ...	1 82½	2 71@2 81	2 81@2 89	6	93½
" 7....	1 82½	2 71@2 81	.....	.....	93½
" 8....	1 82½	2 79@2 82	2 75@2 91	8	96½
" 9....	1 82½	2 79@2 82	.....	.....	96½
" 10....	1 80	2 79@2 82	.....	.....	99
" 11....	1 80	2 79@2 82	2 75@2 91	7	99
" 12....	1 80	2 79@2 82	.....	.....	99
" 14....	1 80	2 79@2 82	.....	.....	99
" 15....	1 80	2 79@2 82	2 79@2 67	10¼	99
" 16....	1 80	2 79@2 82	.....	.....	99
" 17....	1 81¼	2 79@2 82	.....	.....	97¾
" 18....	1 82½	2 76@2 82	2 97@2 97	9	96½
" 19....	1 82½	2 79@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 79@2 82	2 83@2 95½	9	96½
" 23....	1 82½	2 76@2 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	2 81@2 93½	8½	1 02½
" 26....	1 82½	2 83@2 87	.....	.....	1 02½
" 28....	1 82½	2 83@2 87	.....	.....	1 02½
" 29....	1 82½	2 85@2 89	2 85@2 98	12½	1 04½
" 30....	1 82½	2 85@2 89	.....	.....	1 04½
MAY 1....	1 82¼	2 85@2 89	.....	.....	1 04½
" 2....	1 82½	2 85@2 89	2 89@3 02	10½	1 04½
" 3....	1 82½	2 83@2 87	.....	.....	1 06½
" 5....	1 82½	2 83@2 87	.....	.....	1 06½
" 6....	1 91½	2 83@2 87	2 87@3 00	11	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 00	2 85@2 89	2 85@2 98	8	95
" 10....	1 90	2 91@— —	.....	.....	1.01
" 12....	1 90	2 91@— —	.....	.....	1.01
" 13....	1 90	— —@— —	2 91@3 03	12	.....
" 14....	1 90	2 97@2 97	.....	.....	1.05
" 15..	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	2 95@3 03	12	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.02½
" 19....	1 90	2 95@2 97	.....	.....	1.06
" 20....	1 90	2 93@2 87	2 99@3 11	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.05
" 22....	1 90	2 93@2 87	.....	.....	1.08
" 23....	1 82½	2 91@2 95	3 01@3 13	17	1.10½
" 24....	1 82½	2 91@2 95	.....	.....	1.10½
" 19....	1 80	2 91@2 95	.....	.....	1.13
" 27....	1 80	2 91@2 95	.....	.....	1.13
" 28....	1 80	2 91@2 95	.....	.....	1 13
" 29....	1 83½	2 91@2 05	.....	.....	1.10½
" 30....	1 82½	2 95@2 97	.....	.....	1.14½
" 31 ..	1 82½	2 95@2 87	.....	.....	1.14½
JUN. 2....	1 82½	2 95@2 97	.....	.....	1.14½
" 3....	1 82½	2 95@2 97	.....	.....	1.14½
" 4....	1 82½	2 95@2 97	.....	.....	1.14½
" 5....	1 80	2 99@3 03	.....	.....	1.21
" 6....	1 80	2 97@3 03	.....	.....	1.20
" 7....	1 80	2 97@3 03	.....	.....	1.20
" 9....	1 80	2 97@3 03	.....	.....	1 20
" 10....	1 77½	2 97@3 03	.....	.....	1.22½
" 11....	1 77½	2 97@3 03	.....	.....	1.22½
" 12....	1 72½	2 81@3 13	.....	.....	1.32½
" 13....	1 67½	2 91@2 97	.....	.....	1.26½
" 14....	1 67½	2 91@2 97	.....	.....	1.26½
" 16....	1 67½	2 89@2 93	.....	.....	1.23½
" 17....	1 67½	2 89@2 93	.....	.....	1.23½
" 18....	1 67½	2 89@2 93	.....	.....	1.23½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average Csilifornis Wheat. In a few instances Olub are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‖—These differences are those between the mean price of California wheat in Liverpool as announced hy telegraph to the Associated Press and as published in the "Mark Lane Express," In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. MARKET REPORT.

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Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, June 18, 1873.

The year does not opon so hrightly as was anticipated, iuasmuch as prices are tending dowuwards in nearly all kinds of agricultural produce, hut this state of things. can be only temporary. The causes of the decline of Wheat are that in Liverpool it has also declined six ceuts, (owiug no doubt to the large srrivals of overdue cargoes from California), and owing to the auticipated and large stock for export again this year, and no doubt to the forming of combination in freight matters, as freight, notwithstanding the numher of vessels known to be on the way, has got up again. But this depression can be only temporary, as, after a month or so, the Liverpool market will again have settled down, and orders for the new crop will again become urgent to he filled. The crops in Europe have been so indifferent, or rather, they promise so badly, that it is anticipated by some that we may find a market on the Continent for some of our Wheat this year. If so, we may expect unprecedeutedly good prices. But the whole matter of the rise and fall of Wheat for export, and the sudden fluctuations of the market, should teach us the importance of looking to home manufacturers to produce a market for our Wheat and other exports. If we had a good home market, we would be able always to charge a good price for such of our Wheat and other domestic produce that we now export.

Receipts.

Receipts of Bay Produce this week have been generally in advance of those of last; those of Flour have fallen off a little; those of Wheat have increased one-fourth; those of Barley are about the same; those of Potatoes are about one-eighth larger; those of Hay one-half larger; those of Wine have decreased nearly one-half; those of Brandy have been only one-fourth of those of last week; those of Bran have decreased one-third; those of Middlings snd Onions are about the same; those of Hides have decreased nearly one-half; and those of Wool have increased slightly.

We summarize receipts of Bay Produce to date, as 15,419 quarter sacks of Flour; 116,437 centals of Wheat; 8,871 do of Barley; 62 do of Rye; 60 do of Corn; 9,960 do of Potatoes; 2,460 tons of Hay; 20 do of Straw; 18,510 gallons of Wine; 765 do of Brandy; 2,595 centals of Bran; 343 do of Middlings; 491 do of Onions; 241 do of Beans; 126 do of Mustard Seed; 1,066 Hides; 19 bales of Cotton, and 1,434 bales of Wool.

Receipts of Wheat at Oakland for the first week have been 6,600 centals.

Receipts of Coast produce to date have been 685 centsls of Wheat; 5,144 do of Barley; 2,800 do of Oats; 240 do of Potstoes; 156 do of Beans; 221 do of Corn; 451 do of Wool; 57 Hides, and 26 barrels of Wine.

Barley.

Barley still coutinuos to decliue. There is a full supply and a fair demand. We note sales of 200 sacks of Coast Feed at $1 10; 200 do New Crop at $1.11¼; 1,300 do at $1.12½; 200 do at $1.12½ to $1.15; 300 do at $1.15, and 1,000 Choice Brewing at $1.40.

Butter.

The receipts for the psst five days have aggregated 108,500 lbs. The market is wesk. Thsre is a great deal coming in. There will be a good deal of Eistern in the market in the course of s month. Prices remain nearly the same.

Cheese

Is in fsir supply, and the demsnd is good. Prices keep pretty firm. We will have a grest deal in the market in another six weeks.

Flour.

Flour remsins unchanged in price. Exports have not been very large, but they have heen important, as the "Twilight," to Liverpool, hss taken a good shipment of 5 hhls, 2,000 half sacks, and 4 000 quarter sacks. This is the first lsrge shipment thst has ever been sent to Liverpool. Exports last week aggregated 105 bbls, 479 half sacks, and 8,008 quarter sacks.

Hay.

There are lsrge quantities of Hay coming in; Wheat forming the principal item. Prices are down very much. We note sales of 11 tons of Common st $10; 40 do at $10.50; and 30 do of fsir old at $12.25.

Hops.

There is nothing new to report. Prices remain unchsnged.

Oats.

Oats sre weak. There is a good deal of Oregon in the market. We note sales of 500 sacks of Oregon at $1.85 to $1.90; 700 do at $1.82½; 500 California at $1.70 to $1.80 and 200 do of Oregon at $1.80 to $1 90.

Potatoes.

Receipts go on increasing in qusntity, those of this week being equivalent to 10,200 centsls. We note ssles of 500 sacks of Mission at $1.50 to $1.62½; and 200 do Lighthousc at $1.50 to $1.75.

Wheat.

Prices are down this week in consequence of the fall in the Liverpool markct of 8 cents during the week, snd of the rise in the price of tonnsge, which is quoted at $4.86, advanced last week. Wheat in Liverpool, according to the telegrams received by the Merchsnts' Exchange and the Associated Press, is now $2.89 to $2.93. Freights are now quoted at $21.87, which is very high indeed for the beginning of the season. Reccipts from all qusrters for the week aggregate 123,722. an advsnce on those of last week. We have also hegun to export agsin considerably. We note ssles of 3,500 sacks at $1.65; 6,200 do choice at $1.70; and 20,900 do at $1.75.

Exports for the week include per "Blue Jacket," 14,416 centals; per "Iphigenia," to Queenstown, 14,613 do; per "Madame Demorest," to Cork, 19,924 do; per "Twilight," to Liverpool, 29,181 do; per "Helen Morris," to Liverpool, 36,723 do; per "Emily," to Queenstown, 9,626 do; making a total of 151,483 ceutals of a value of $283,300.

Wool.

The Spring Clip is uearly all in. Prices remain with out change. Sales for the week aggregste 130, 00 lbs Boston advices of the 7th say: California continues to come forward quite freely, and nearly 400,000 lbs of this description have been taken hy manufacturers, of which upwards of 100,000 lbs was very choice and handsome Northern at 35c per lb. This, however, is a very extreme price, and should uot go forth as a quctation of the market without some qualification. Very little of the spring California, so far received, commands over 30c, and from 25@30c is all that fair and good average lots will command.

GENERAL MERCHANDISE.

Bags are very weak in consequence of large importations, 1,000,000 having come hy the steamer last Saturday. Case goods are very stiff, the old stock being nearly altogether out of the market. There will be a rise in the price of white Iron as there are not more than 300 tons here and 90 tons on the way. Exports last week were pretty heavy, being carried in 9 ships and beiug worth $431,926.

San Francisco Metal Market.

WEDNESDAY, June 18, 1873.

IRON.—			
Scotch Pig Iron, ₱ ton	$52 00	@	55 00
White Pig, ₱ ton	52 00	@	55 00
Refined Bar, bsd assortment, ₱ lb	—	@	— 06
Refined Bar, good assortment, ₱ lb	— —	@	— 06½
Boiler, No. 1 to 4	— 05½	@	— 06
Plate, No. 5 to 9	— 06½	@	— 07
Shest, No. 10 to 13	— 07½	@	— —
Sheet, No. 14 to 20	— 08	@	— 08½
Sheet, No. 24 to 27	— 08	@	— 09
Horse Shoes, per keg	9 00	@	
Nail Rod	11	@	
Norway Iron	9		
Rolled Iron	6½		
Other Irons for Blacksmiths, Miners, etc.	6½	@	9½
COPPER.—			
Braziers	— 35	@	— 38
Copper Tin'd	— 50	@	— —
O.Niel's Pat	— 55	@	— —
Sheathing, ₱ lb	— —	@	— 29
Sheathing, Yellow	— 28	@	— 29
Sheathing, Old Yellow	— —	@	— 12½
Composition Nails	— 29		— 30
Composition Bolts	— 29		— 30
TIN PLATES.—			
Plates, Charcoal, IX ₱ box	14 50	@	15 —
Plates, I C Charcoal	13 50		14 —
Roofing Plates	13 00		13 50
Banca Tin, Slabs, ₱ lb	— 40		— 42½
STEEL.—English Oast, ₱ lb	— 20		— 25
Drill	20		— —
Flat Bar	22		— —
Plough Points	16		— 17
Russia (for monld boards)	17		18
ZINC	9¼		10
Zino, Sheet	— 9		— 10
NAILS—Assorted sizes	— 5½	@	— 9

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$18 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	30 00
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	37 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	25 00
Rustic, ₱ M	35 00	Laths, ₱ M	3 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough refuse, ₱ M	— —
Surfaced refuse, ₱ M	22 50		
Flooring, ₱ M	30 00	**REDWOOD—Retail.**	
Flooring, refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	32 50	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch Siding, M	22 50	Siding, ₱ M	25 00
Half-inch siding, ref. M	16 00	Tongued and Grooved, surfaced, ₱ M	35 00
Half-inch, Surfaced, M	25 00	Do do refuse, ₱ M	27 50
Half-inch Surf. ref., M	18 00	Half-inch surfaced, M	37 50
Half-inch Battens, M	22 50	Rustic, ₱ M	37 50
Pickets, rough, ₱ M	14 00	Battens, ₱ lineal foot	1
Pickets, rough, p'ntd	16 00	Shingles ₱ M	3 00
Pickets, fancy, p'ntd	22 50		
Shingles, ₱ M	3 00		

San Francisco Retail Market Rates.

WEDNESDAY NOON, June 18, 1873

FRUITS, VEGETABLES, ETC.

Apples are coming in slowly yet. There are not many Pears, and those sre of inferior quality. All other kinds of uew fruits are in good supply; so also are vegetsbles. Apricots, Blackberries and Raspherries have declined. Strawberries have advaneed.

Apples, pr lb	—	@	12½	Celery, ₱ doz	1 00	@	—
Pears, per lb	—	@	12½	Cucumbers, dz	50	@	75
Apricots, lb	8	@	15	Tomatoes, ₱ lb	6	@	8½
Pine Apples, each	50	@	1 00	Green Peas	5	@	6
Bananas, ₱ doz	75	@	—	String Beans	5	@	12
Canteleups	—	@	—	Cress, ₱ doz bun	20	@	—
Blackberries	15	@	20	Dried Herbs, lb	25	@	35
Cal. Walnuts, lb	—	@	20	Garlic ₱ lb	—	@	10
Cranberries, ₱ g	—	@	1 00	Green Corn, doz.	15	@	25
Strawberries, lb	15	@	20	Lettuce, ₱ doz	25	@	35
Raspberries, lb	—	@	20	Mushrooms, ₱ lb	50	@	—
Gooseberries*	10	@	25	Horsersdish, ₱ lb	—	@	25
Currants	8	@	10	Okra, dried, ₱ lb	50	@	—
Cherries, ₱ lb	15	@	35	do fresh, ₱ lb	50	@	—
Oranges, ₱ doz	50	@	1 00	Pumpkins, ₱ lb	3	@	—
Limes, per doz	25	@	—	Parsnips, doz	20	@	25
Figs, dried Cal. *	12½	@	25	Parsley	20	@	25
Figs, fresh	35	@	—	Pickles, ₱ gal	50	@	75
Figs, Smyrna, lb	25	@	35	Radishes, doz	20	@	25
Asparagus, lb*	10	@	15	Summer Squash	—	@	5
Artichokes, doz.	25	@	35	Marrowfat, do.	2	@	3
Beets, ₱ doz	20	@	—	Hubbard, do.	3	@	3
Potatoes, New ₱ lb	3	@	5	Dry Lima, shl	—	@	10
Potatoes, sweet,*	3	@	5	Spinsge, ₱ bskt.	25	@	50
Broccoli, ₱ pc.	10	@	15	Salsify, ₱ bunch	—	@	—
Cauliflower, †	10	@	15	Turnips, ₱ doz.	20	@	25
Cahbage, ₱ doz	75	@	1 00	Rhubarb	6	@	8
Carrots, ₱ doz	20	@	—				

POULTRY, GAME, FISH, MEATS, ETC

Poultry is agaiu plentiful and cheap. Hare is scarce and getting dearer. Rabbits, both wild and tame, are more plentiful snd cheaper. Flounders, Smelts, and Rockfish, are iu plentiful supply. Halihut is in agaiu. Prices of the first meutioned have decreased.

Chickens, apiece	75	@	1 —	Flounder, ₱ lb	15	@	18
Turkeys, ₱ lb	30	@	—	Salmon, ₱ lb	—	@	—
Mall Canv Bk, pr	—	@	—	Smoked, new,*	12½	@	—
Tame, do	1 50	@	2 —	Pickled, ₱ lb	5	@	6
Teal, ₱ doz	—	@	—	Salmon bellies	—	@	—
Geese, wild, pair	—	@	—	Rock Cod, ₱ lb	10	@	12½
Tame, ₱ pair	3 50	@	4 —	Cod Fish, dry, lb	12½	@	—
Snipe, ₱ doz	—	@	—	Perch, s water, lb	10	@	—
Pigeons, dom. do	—	@	1 20	Fresh water, lb	—	@	—
Wild, do	—	@	—	Lake Big. Trout*	—	@	—
Hares, each	37½	@	50	Smelts, large ₱ lb	6	@	8
Rabbits, tame†	50	@	75	Herring, Sm'kd.	75	@	—
Wild, do, ₱ dz.	1 50	@	—	Tomcod, ₱ lb	10	@	12½
Beef, tend, ₱ lb	20	@	25	Terrapin, ₱ doz.	3 00	@	—
Corned, ₱ lb	—	@	8	Mackerel, p'k, ea	12½	@	—
Smoked, ₱ lb	15	@	—	Fresh, do lb	—	@	—
Pork, rib, etc., lb	15	@	10	Sea Bass, ₱ lb	—	@	—
Chops, do, ₱ lb	15	@		Halibut	60	@	75
Veal, ₱ lb	—	@	20	Sturgeon, ₱ lb	4	@	5
Cutlet, do	15	@	20	Oysters, ₱ 100	1 00	@	—
Mutton—chops,*	—	@	10	Chesp. ₱ doz	75	@	—
Leg Mutton, ₱ lb	10	@	—	Turbot	50	@	—
Lamb, ₱ lb	12½	@	15	Crabs ₱ doz	1 00	@	—
Tongues, beef,	75	@	—	Soft Shell	37½	@	—
Tongues, pig, lb	10	@	—	Shrimps	10	@	—
Bacon, Cal., ₱ lb	—	@	18	Sardines	10	@	12½
Hams, Cal, ₱ lb.	16	@	—	Soles	—	@	25
Hams, Cross' s o	—	@	20	Young Trout	—	@	30
Choice D'field	20	@	—	Young Salmon	—	@	—
Whittaker's	18	@	20				

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. pr lb	25	@	32	Syrup, S F. Gol'n.	60	@	65
Cheese, Cal., lb	15	@	20	Dried Apples	10	@	12½
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	10	@	12½
Flour, ex. fsm. bl	5 75	@	6 00	Dr'd Figs, Cal	9	@	10
Corn Meal. lb	2½	@	3	Dr'd Peaches	8	@	10
Sngar, wh. crsh'd	11½	@	12	Oils, Kerosene	45	@	50
do lt. brown, lb	10	@	11	Eggs	30	@	—
Coffee, Sbarboro's family gr'nd, lb			27½	do Eastern	25	@	—
Coffee, green. lb	18	@	22	Wines. Old Port	3 50	@	5 00
Tea, fine blk, 50, 65, 75		@	1 00	do Fr. Claret	1 00	@	1 25
Tea, finst Jap, 50, 75, 90		@	1 00	do Cal. dz. bot	3 00	@	1 50
Candles, Adsmant'e	17	@	25	Whisky, O.B, gal.	3 50	@	5 00
Soap, Cal., lb		@	10	Fr. Brandy	4 00	@	10 00
Can'd Oysters dz.	2 50	@	3 75	Rice, lb	10	@	12½
				Yeast Powders, dz.	1 50	@	2 00

—* Per lb. †Per dozen. ¶ Per gallon.

GENERAL MERCHANDISE.

BAGS.

Eng. stand. Wh't	14½	@	—
Flour Sacks ½s	15½	@	16
" ¼s	8¼	@	9½
Stand. Gunnies	—	@	18
" Wool Sacks	55	@	57½
" Barley do	15¼	@	16
Hessian 15-in gds	10¼	@	11½
do 60	17	@	—
Burlaps, yard	10½	@	—

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	3 00	@	—
do Table do	4 —	@	4 25
Jams & Jellies	4 —	@	4 50
Pickles ½ gl	3 25	@	3 50

COAL—Jobbing.

Australian, ₱ ton		@	14 —
Coose & Bel. Bay.	8 50	@	10 —
Seattle	13 00	@	—
Cumberl'd, cks	26 00	@	—
do bulk	— —	@	25 —
Lehigh	20 00	@	—
Liverpool	11 00	@	12 —
West Hartley	14 00	@	16 —
Scotch	12 00	@	14 —
Scranton	15 00	@	—
Vancouver's Isl.	12 00	@	14 —
Charcoal, ₱ sk	75	@	—

COFFEE.

Costs Rica per lb	20	@	—
Gnatemala	20	@	—
Java	—	@	23
Manilla	19	@	—
Ground in cs	27½	@	—
Chicory	8	@	—

FISH.

Pac. Dry Cod, new cases	—	@	9
Eastern Cod	8¼	@	9
Salmon in hbls	8 00	@	—
do ½ bbls	4 50	@	5 00
do 2½ lb cans	—	@	—
do 2lb cans	—	@	3 50
do 1lb cans	—	@	2 —
Pick. Cod, bbls	—	@	—
do ½ bbls	—	@	—
Cal. Smoked	—	@	—
Herr'g, box	50	@	—
Mack'l, No. 1, ½ bls	00	@	9 50
" Extra	—	@	14 00
" in kits	2 50	@	—
" moss	2 87½	@	2 50
" ex. mess	—	@	4 00

NAILS.

Assorted size, lb	5¾	@	9 —

OILS.

Pacific Glue Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No. 1	1 45	@	1 50
do do No. 2	1 35	@	1 40
Cocoa Nut	60	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	40	@	45
Polar, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	37½	@	40
Oleophine	37½	@	40
Devoe's Bril't	42	@	45
Long Island	37½	@	40
Eureka	37½	@	40
Downer Kerose'e	50	@	52½
Gas Light Oil	37½	@	40

PAINTS.

Atlan. W. Lead.	11½	@	12
Whitening	—	@	2
Chalk	—	@	1
Paris White	—	@	3
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11

RICE.

China No. 1, ₱ lb	6½	@	6¾
do 2, do.	6	@	6¼
Japan	6	@	7½
Patna	7	@	—
Hawaiian	8	@	9

SALT.

Cal. Bay, per ton	5 00	@	15 —
Carmen Island	14 00	@	30 —
Liverpool fine	25 00	@	26 —
do course	19 00	@	20 —

SOAP.

Castile ₱ lb	9½	@	11
Local brands	5½	@	7

SPICES.

Allspice, per lb	15½	@	16
Cloves	35	@	37½
Cassia	30	@	—
Nutmeg	1 15	@	—
Whole Pepper	—	@	24½
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	27½	@	38
do Mace	1 30	@	1 50
do Coffee	—	@	—

SUGAR, ETC.

Cal. Cube per lb	11	@	—
Circle A crushed	11	@	—
Dry granulated	10¾	@	—
Extra do	10½	@	—
Golden C	9½	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls.	52½	@	—
do in ½ bls.	55	@	—
do in kegs	60	@	—

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyuno	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquored bxs, 4½ and 5 lbs	45	@	67
Japan, do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ¼ & 1 lb paper	30	@	55

TOBACCO—Jobbing.

Bright Navys	52½	@	60
Dark do	50	@	55
Dwaif Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Conn. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Vrigi'a Smok'g	60	@	95
Fine ct che'g, xx	8 50	@	9 25
Fine cut chewing, huo'ts, ₱ lb	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

DOMESTIC PRODUCE.

WEDNESDAY M., June 18, 1873.

BEANS.

Beans, sm'l wh. lb	6	@	6¼
do, hntter	6	@	6½
do, large, do	5¼	@	6½
do, bayo	3¼	@	3¾
do, pink	3¼	@	3¾
do, pea	6½	@	7

BROOM CORN.

Per ton	$60	@	$150

DAIRY PRODUCE.

Butter, Cal. fresh lb	—	@	—
do, ordin'y roll	24	@	25
do, choice	28	@	—
do, new firkin.	28	@	30
do, pickled	24	@	30
do, New York	—	@	5
Cheese, Cal. new	10	@	13
do, Eastern	14	@	—
Eggs, Cal. fresh	—	@	24
do, Oregon	—	@	18
do, Eastern	18	@	—

FEED.

Bran per ton	25	@	— —
Middlings	28	@	32 50
Hay	11	@	15 —
Straw	12	@	— —
Oil cske mesl	30	@	— —
Corn Meal	30	@	31 —

FLOUR.

Alviso Mills, bbl	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Commer'l Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
Sants Clara Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venus, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard. Soc	4 50	@	5 75

FRESH MEAT.

Beef, fr quality, lb	7	@	—
do, second do	6	@	—
do, third do	5¾	@	5
Veal	6	@	7
Mutton	5½	@	6
Pork, undressed	7¾	@	7¾
do, dressed	10	@	11

GRAIN, ETC.

Wh't Cal. c'st.	1 60	@	1 65
do, shipping	1 67½	@	1 72½
do, milling	1 70	@	1 75
do, Oregon	— —	@	— —
Barley, Dark O'st'l	1 12½	@	1 15
do, light	1 15	@	1 20
do, Brewing	1 30	@	1 40
Oats, Dark	1 65	@	1 75
do, Light	1 70	@	1 75
do Omaha	—	@	— —
do Oregon	1 80	@	1 85
Corn, White	1 30	@	1 32½
do, Yellow	1 30	@	1 32½
Buckwheat	1 25	@	—
Rye	2 00	@	2 12½

HOPS.

California, 1871, lb	—	@	— —
do 1872	50	@	— —
Eastern, 1872, lb	60	@	62½

MISCELLANEOUS.

Beeswax, per lb

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA

Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞ Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel.** Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞ Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

MATTESON & WILLIAMSON'S

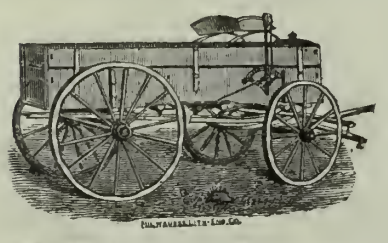
American Chief Gang Plow.

Took the Preminm over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

THE BAIN WAGONS.



These Wagons are now recognized as

The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.

We are now receiving a full stock of

Farm Wagons, Freight Wagons, and Header Wagons.

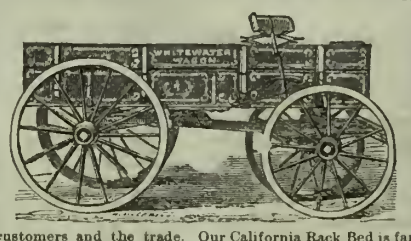
SEND FOR A LIST OF PRICES TO

BAKER & HAMILTON,
15v5-3m Sacramento and San Francisco.

THE WHITEWATER WAGON.

PRICES.—**Thimble Skein,** 3 inch, $100; 3¼ inch, $105; 3⅛ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats,** etc., $40 to $50, complete, according to style. **Iron Axle,** $130 to $185, according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth,** and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be



popular in California, must be a **good one,** and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a box. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars,** and the seats **hardwood Standards;** the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California,** being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory,** and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price,** give the "Whitewater" a trial. **TREADWELL & CO., San Francisco,** General Agents for the Pacific States. 14v5tf

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DAYTON, OHIO, SULKY HORSE RAKE.

11,000 Sold in the Past Four Years.

The BEST and CHEAPEST WHEEL HORSE RAKE ever Sold on this Coast.

ALSO, FOR SALE LOW,

The Celebrated EXCELSIOR REAPING and MOWING MACHINE.

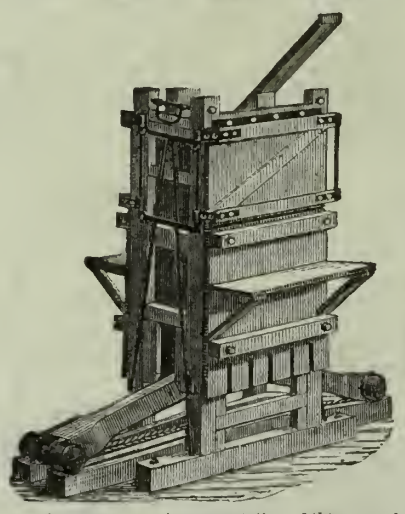
800 SOLD LAST SEASON ON THIS COAST.

Send for Circulars.

J. D. ARTHUR & SON.

22v5-1m CORNER CALIFORNIA AND DAVIS STREETS, SAN FRANCISCO.

THE EAGLE HAY PRESS.



The above is a correct representation of this remarkable **EAGLE HAY PRESS,** the invention of J. A. McGillivral, of Illinois, to whom Letters Patent were issued Jan. 10th, 1865, and July 24th, 1866.

Several years were devoted by the patentee to the perfection of this powerful press, and its unprecedented sale in the East induces the proprietors to introduce it into California and the Pacific States.

All who have seen or used these presses pronounce them superior to anything used heretofore. The power is applied by means of two levers, and it will be seen the power increases in ratio to the resistance, as the levers approach a horizontal position the power can scarcely be estimated. It is not only a powerful press, but has the advantage of being cheap, and also simple, therefore not liable to get out of order.

Three men with one horse can bale from TEN TO FIFTEEN TONS PER DAY, each bale weighing 250 to 300 pounds. It obviates all necessity of beating the hay before pressing. On account of its great power it is well adapted for pressing HYDES, RAGS, WOOL OR COTTON. When a bale is pressed and fastened the follower runs down of its own weight, and the bales can be taken out on either side. On April 18th, 1871, this Press was tested at the State Agricultural Hall, Sacramento, and stood the test of a bale of wool, 550 pounds. Reference, Maj. Rob't Beck.

We have added to this Press this season an improvement (patented) which does the stamping, dispensing with men to tread down the hay in the Press, facilitating the operation, and saving much hard work. The additional cost being but $25, paying for itself in labor saved in a week.

These Presses are now manufactured in San Francisco by the

Kimball Car and Carriage Manufact'g Co.,

Who are the Proprietors on the Pacific Coast, and will endeavor to have a supply constantly on hand.

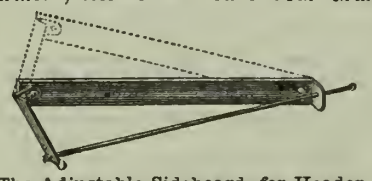
12v5-2am3m-2ts

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Orders for good White and Chinese help of all kinds for Families, Hotels, Gardens, Farms, Factories, Contractors, Railroads, etc. Satisfaction guaranteed. CHAS. F. BECHERER & CO.'S General White and Chinese Employment Office, No. 652 Sacramento street, near Kearny, San Francisco. 15v5-3m

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Farmers, Attention! Save Your Grain!



The Adjustable Sideboard, for Header Wagon-boxes, just Fills the Bill.

Intelligent farmers everywhere have felt the necessity of a sideboard for the lower side of the Header Wagon-box. The proprietor of the Adjustable Sideboard now offers the means by which a large leak can and will be stopped. By reference to the cut, it will be seen that the Sideboard can be lowered inside the wagon while under the spout, thus putting it entirely out of the way. The dotted lines show the position of the hinge when the Sideboard is raised after the load is on, thus giving an additional height of from twelve to twenty inches to the lower side. The hinge is light, durable, compact, and by no means complicated.

Orders solicited. Address WM. S. MURPHY,
N. E. cor. Drumm and California sts., S. F.
JAS. T. ISH, Proprietor. 13v5eow tf

ÆTNA MOWER AND REAPER

The Latest and Best in the Country.

HAS A DOUBLE MOTION,

Giving FAST or SLOW SPEED to the knife or sickle, besides all other improvements of first-class machines. ☞ Send for Illustrated pamphlet, and don't fail to see the ÆTNA before buying.

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BAKER & HAMILTON,

SACRAMENTO AND SAN FRANCISCO,

Importers of

HARDWARE,

Agricultural Implements, Harvesting Machinery, etc.

Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

Haines' Genuine Headers, Bain's Header Wagons, Bain's Farm Wagons.

The celebrated PITTS IMPROVED THRASHERS and Horse Powers.

Portable Steam Thrashing Engines.

Hand and Horse Power Hay Presses.

Lock Levers; Hollingsworth and Whitcomb's Wheeled Hay Rakes.

Wood's Revolving Horse Rakes.

Hand Rakes, Scythes, Snaths, Forks, Shovels, Baling and Fencing Wire, Rope, Nails, Belting, Machine Oils, etc. A full stock of SHELF HARDWARE.

EXTRA PARTS for repairing Harvesting Machinery.

Orders by Mail or Express will receive prompt attention. Send for Circular. Address

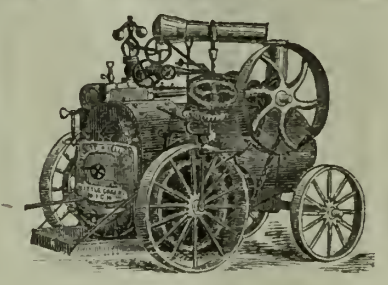
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43, 45, 47 J STREET, TREADWELL BUILDING, SACRAMENTO.

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And also a superior Iron Axle Wagon.

MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.

John Deer Moline Plow.

Also COLLINS' PLOW (Smith's Patent).

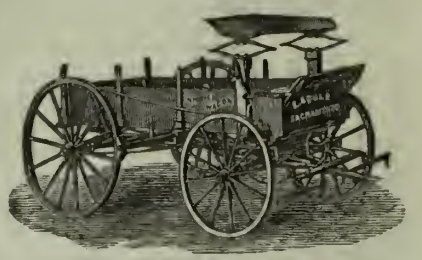
THE GORHAM BROADCAST SEEDER AND CULTIVATOR.

EXCELSIOR MOWER AND REAPER.

The "EXCELSIOR" MACHINE took the first premium at our State Fair.

We are Sole Agents for "Excelsior" BRASS-BEARING WAGON, Merritt & Kellogg's TRACTION ENGINE, ☞ Please call and examine. 17v4-1y

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FIRST PREMIUM AWARDED at the State Fair of 1870; also First Premium at Mechanics' Fair, San Francisco, 1871; and Silver Medal and First Premium for best Farm Wagon, and First Premium for the best improved Thimble Skein at State Fair, 1871. Also State Fair GOLD MEDAL for 1871.

E. SOULE,
ap22-3m San Quentin, Cal.

The Pacific Irrigating Pipe and Pump Co.,

A. M. JEWELL, Superintendent.

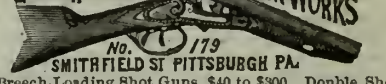
Office and Factory, South Point Mills, Berry street, bet. Third and Fourth, SAN FRANCISCO.



Hereby call the attention of Farmers, Stockmen and others using wooden Pumps and Pipes, to the fact that they are now prepared to furnish all kinds of House and Farm Pumps, also Wooden Pipe of from 1½ to 8 inches diameter, at prices much less than any others in this market.

PRICES OF PUMPS.....from $3.25 to $9.
PRICES OF PIPE.....from 10 to 50 cents per foot.
☞ Agents wanted at every town. Send for Illustrated Catalogue. 23v5-3m

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Breech-Loading Shot Guns, $40 to $300. Double Shot Guns, $8 to $150. Single Guns, $3 to $20. Rifles, $8 to $75. Revolvers, $6 to $25. Pistols, $1 to $8. Gun Material, Fishing Tackle, &c. *Large discounts to dealers or clubs.* Army Guns, Revolvers, etc., bought or traded for. Goods sent by express C. O. D., to be examined before paid for.

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21v2-1y



Strawberry Baskets—The Best Yet Out.

A new thing. Holds a pound. Fits the common chest. Raised bottom—ventilates and keeps fruit from moulding near bottom of basket. Very neat. Costs only a cent. A new, clean package every time. No more weighing fruit into paper bags. SWAN & CO. are ready to make 20,000 per day.

UNION BOX FACTORY,
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Office, 315 California street, SAN FRANCISCO.

SEVERANCE & PEET,

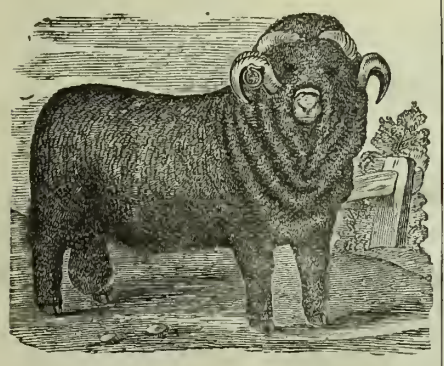
Importers and Breeders of Thoroughbred Spanish Merino Sheep.



The Merino Ranch Recently purchased by us, is situated in the San José Valley, near the junction of the San José & C. P. R. R., and only five minutes walk from Niles Station; is accessible from all points, being only twenty-three miles from San Francisco. Our flock, which will be kept upon this ranch, was recently imported from Addison County, Vermont, and was selected with great care from the very finest flocks in the State, and is comprised of a selection from the flocks of E. & G. Hammond; S. S. Rockwell, Cherbino & Williamson, N. A. Saxton, F. H. & H. F. Dean and C. & R. Lane, including two lots of lambs, some of which are represented in the accompanying cut, that took first premium last fall at the Addison County Fair. In every case our sheep were picked with a view of getting the best, and it is our purpose to maintain a flock and breed a class of sheep that will do credit to the State as well as ourselves, and offer the trade sheep with a style and brilliancy of fleece that will rapidly improve the standard of wool grown at large, as well as enhance the profits of those thus engaged.

At present our flock consists of 300 breeding ewes, aged from one to four years; 250 ewe lambs, coming year old this spring. Also 100 buck lambs, which we shall offer for sale. They will be thoroughly acclimated and in fine condition for use the coming season; will be sold at reasonable rates, considering quality, which is unsurpassed by an equal number in any State in the Union. All those interested in Thoroughbred Stock are cordially invited to call and examine our stock, whether they wish to purchase or not.

Stock Notices.



Pure Blooded French Merino Rams and Ewes,

For sale by ROBERT BLACOW, of Centreville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet.

Also a few well-bred young Bulls of the Durham blood. 12v5-3m

N. GILMORE,

Importer and Breeder of

Angora or Cashmere

GOATS

—OF—

PURE BLOOD

—AND—

ALL GRADES.

For sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all party of the State. For particulars address

N. GILMORE
El Dorado, El Dorado county,
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THOS. BUTTERFIELD & SON,

Breeders and Importers of the

Cotswold, Lincoln, Leicester, Texel and South Down

SHEEP.

—ALSO—

THE ANGORA GOAT.

Now offer for sale the Pure Bred and High Grades. We have a good lot of Bucks of crosses between the Cotswold and South Down, between the Lincoln and Leicester, and the Lincoln and Merino.

THOS. BUTTERFIELD & SON,
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FOR SALE.

Two Thoroughbred Durham Bulls.

Also, a lot of fine POLAND CHINA PIGS.

Address CANNON & STAPLES,
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WOOL COMMISSION MERCHANTS,

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Receive Consignments of Wool, Sheep Skins, Hides, etc. Liberal advances made to consignors. Keep on hand the best quality of Wool Sacks, Twines, and other supplies.
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SMITH & OVERHISER,

SUCCESSORS TO J. D. PATTERSON,

Breeders of First-Class Thoroughbred

SPANISH MERINO

—AND—

FRENCH MERINO SHEEP.

OUR PRICES WILL BE LESS THAN THE SAME QUALITY can be purchased of any other RELIABLE BREEDERS in California and the Eastern States.

Rams will be sent to San Francisco, and sold by Christy & Wise; also at Wm. L. Overhiser's, near Stockton; and at Patterson's ranch, near Grayson, San Joaquin river.

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Grayson, Stanislaus County.

WM. L. OVERHISER,
23v5-tf Stockton.

Pure Berkshire Pigs For Sale

BY

R. S. THOMPSON, Napa, California,

Importer and Breeder of Improved Berkshire Swine.
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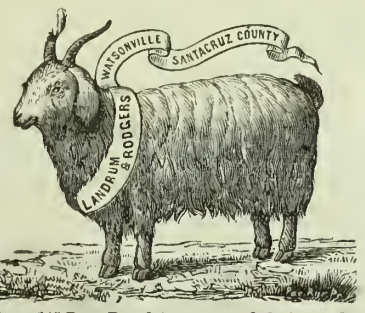
40 Thoroughbred Angora Goats for Sale! Imported by a native of Angora, direct from Asia Minor. For specimens see the flock of Thomas & Shirland, Sacramento, Cal. Address A. EUTYCHIDES, Spout Spring, Appomattox County, Va. 10v4-1y

SPANISH MERINOS.—We offer for sale low, about 100 of our fine Thoroughbreds. Send for Catalogue Orders solicited. JOHN SHELDON & SON, Moscow, N. Y.

TOBACCO GROWERS!

Kempshall's Patent Tobacco Hanger.

Saves Tobacco, Labor, Time and Annoyance. No Tobacco Grower will do without, having once tried it. Pays for itself first year. Send for circular for particulars. E. KEMPSHALL & CO.,
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We have 145 Pure Breed Augoras and 2,000 grades of 12 years' breeding to select from. Those wanting Bucks will find it to their interest to send for pamphlet on Breeding, and to examine our stock of Angora Goats and Cotswold Sheep. LANDRUM & RODGERS,
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HELEN MORRIS—CHASE, MASTER,
BLUE JACKET—GROZIER, MASTER,

Are now loading and intended to sail with dispatch. To be followed by other vessels. Freight taken in lots to suit shippers.

Apply to E. E. MORGAN'S SONS,
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HENRY K. CUMMINGS & CO.,

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Our business being exclusively Commission, we have no interests that will conflict with those of the producer.
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Fresh Laid Eggs for Hatching,

Carefully packed to send to any part of the Coast, safely, by RICHARD D. MOWRY,
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THE PEOPLE'S PRACTICAL POULTRY BOOK.

A work of 224 pages on the

Breeds, Breeding, Rearing and General Management of Poultry.

By WM. M. LEWIS, New York, 1871; with over One Hundred Engravings. Sold by DEWEY & Co., Rural Press office for $1.75, or sent postage paid for $2.00.

Farmers, everywhere, write for your paper.

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INCORPORATED UNDER THE LAWS OF THE STATE OF CALIFORNIA.

CAPITAL STOCK.....$250,000.00
Divided into 2,500 shares, of $100 each.

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TREASURER.....F. P. F. TEMPLE.
SECRETARY.....GEO. C. GIBBS.

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Are invited to examine our stock of Scientific Books on

Domestic Animals, Fruit and Floriculture, Scientific Farming, Architecture, Etc.

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THE CHEAPEST PLACE IN SAN FRANCISCO TO BUY

Carpets, Oil Cloths and Upholstery Goods,

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PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.

Office, 3 and 5 Front street.
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CHEMICAL PAINT

Of any desired Shade or Color,

Mixed ready for application, and sold by the gallon

It is Cheaper, Handsomer, more Durable and Elastic than the best of any other Paint.

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15v23-3meowbp HEALY & JEWELL, Agents.

ARCHITECT J. J. NEWSOM No. 430 MONTGOMERY ST. S. F.

Farmers, Buy the Best.

1873. 1873.

BAKER & HAMILTON,

IMPORTERS OF THE ONLY

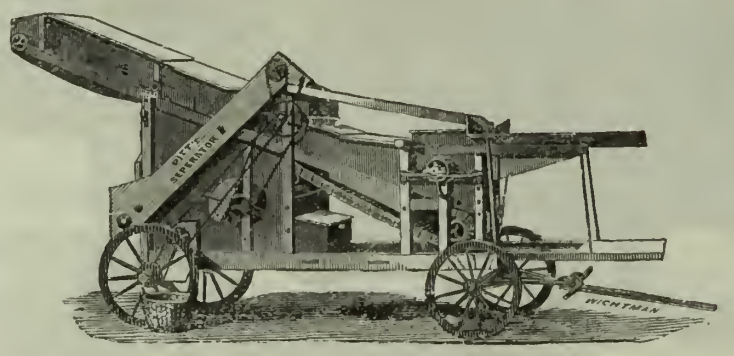
We would call the attention of farmers to the important improvements made in the BUFFALO PITTS THRESHING MACHINES within the pasi year, making them the greatest labor-saving machines in use.

SAN JOAQUIN, Cal., Nov. 4. 1872.

Messrs. BAKER & HAMILTON, S. F.—

DEAR SIRS: I threshed in 66 days, with the improved Pitts Separator I honght of you, 69,000 hushels. The largest day's work in wheat was 1,840 hushels, and in barley 1,000 sacks. It is the hest machino I have ever ever seen. Did not cost me a ceni for repairs except new teeth. I made clear $2,100, and wages were higher than usual this year.

Yours with respect, JOHN FISHER.



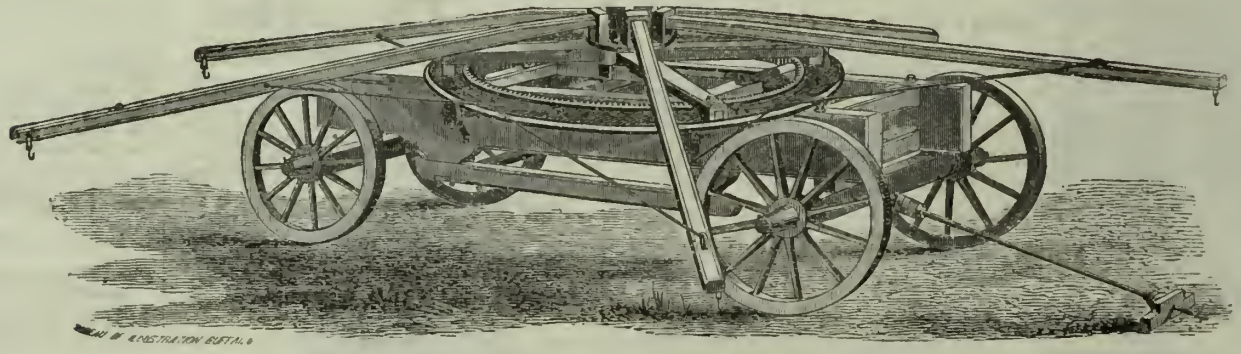
THE BUFFALO PITTS MACHINES, under the supervision of Mr. Bronsen, have heen altered and improved so that iheir furiher alteration is unnecessary. They are now as nearly perfect as machines can be made, heing capable of threshing and cleaning without cracking or wasting all the grain that it is possible for the usual company of men in attendance to handle with the aid of Horse Forks and oiher machinery.

GENUINE BUFFALO PITTS THRESHING MACHINES,

AND

THE GENUINE PITTS MOUNTED POWERS.

By means of three concaves in the NEW BUFFALO PITTS THRESHER, new patent adjustable concave hangers, enlarged Fans, Improvod Shoe, Spout, and Straw Carrier Shakers, they are capahle of such nice adjustment, that grain, whether threshing easy or hard, in tough, wet or dry straw, can ho separated perfectly.



THERE ARE NUMEROUS SO-CALLED PITTS POWERS IN MARKET, BUT NONE ARE GENUINE EXCEPT THOSE MADE BY **JAS. BRAYLEY**, OF BUFFALO.

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BUFFALO POWER,

AND BUY NO OTHER.

FARMERS, BEWARE OF IMITATION PITTS MOUNTED POWERS!

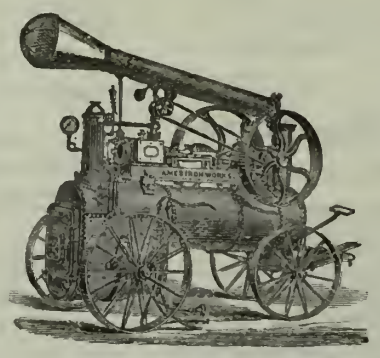
The Genuine Buffalo Pitts Powers are made only by Jas. Brayley, of Buffalo, and we are his only agents on this Coast. The improvements made in the Pitts Genuine Mounted Power are covered by patents which protect us in their exclusive use. CAUTION.—Various persons throughout the country are making repairs for powers by means of patterns which are taken from castings, and are necessarily imperfect. Users should order direct from us.

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Owing to the partial failure of Crops we have reduced our prices and terms, and are determined to place the

GENUINE PITTS MACHINES

In Farmers' Hands at the Lowest Possible Figures.



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These Engines are ready for the Field, and are Superior to any we have ever sold. They give universal satisfaction, and are the

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BAKER & HAMILTON,

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PACIFIC RURAL PRESS

Volume V.] SAN FRANCISCO, SATURDAY, JUNE 28, 1873. [Number 26.

The World Self-Rake Reaper.

In introducing to our readers an engraving of the World Self-Rake Reaper, we give also the views of its proprietors and manufacturers, that the public may judge from both, as to the merit that is claimed of its superiority over other harvesting machines. They say: The World enters upon the present season, backed by a record of success unprecedented in the history of any other Mowing and Reaping Machine; and, while cheerfully conceding to the now vast family of American harvesters their well-earned laurels, we unhesitatingly aver that, mechanically and with respect to its efficiency in the field, the World Mower and Reaper *stands without a rival.*

We may be allowed to refer, briefly, to the proofs of its mechanical superiority, involving the durability of its vital parts. Although in use for a length of time and doing actual cutting sufficient to have worn out from two to three rough-cast machines, the removal of any wheel, pinion, shaft, box, bolt or nuts—in consequence of wear—is positively unknown. Nor has any breakage ever been known to occur, as the result of loosening of any of its parts.

Such a statement may seem to many incredible, because they judge the World by the rough-cast machines which they are familiar.

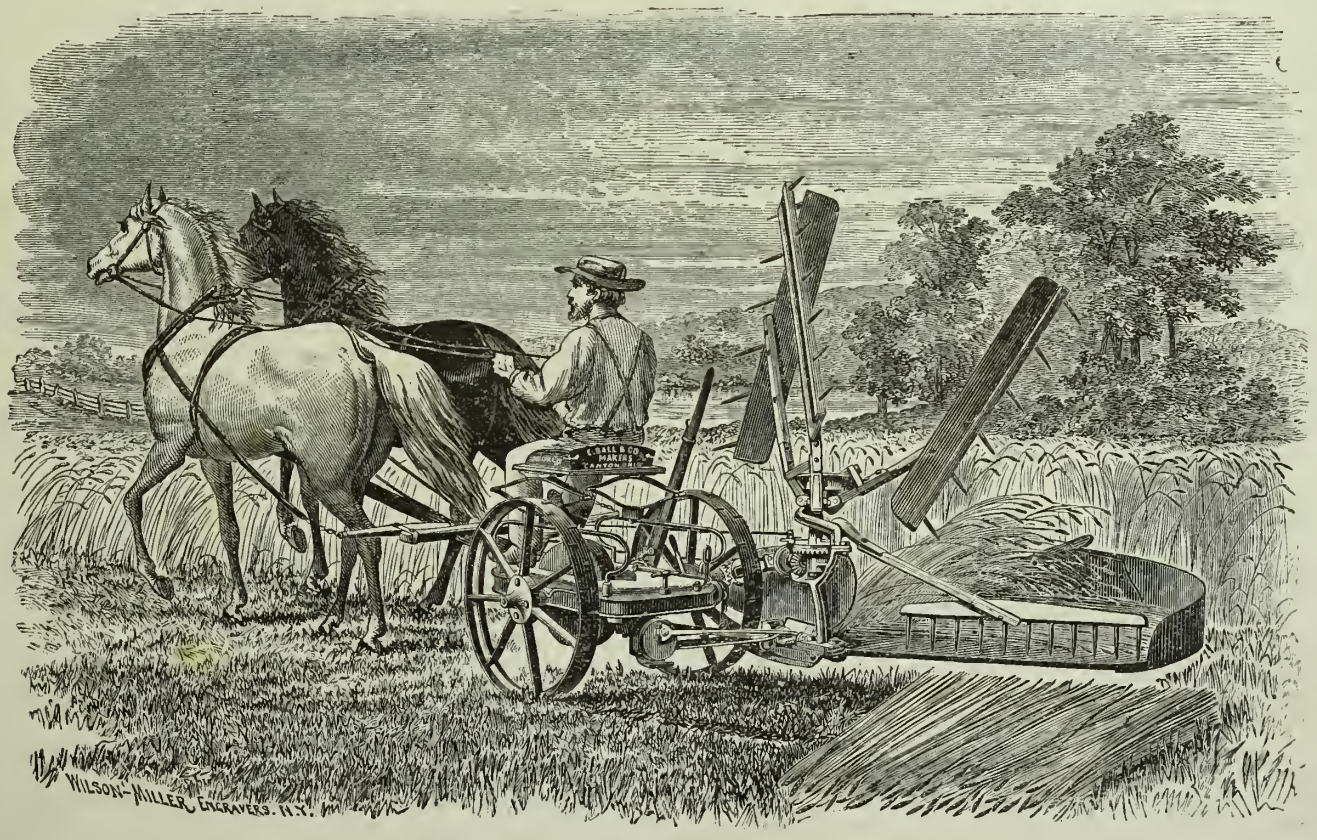
But this is not all; it is a fact susceptible of easy proof, where there are World machines—we care not how long or severe the service to which they have been subjected — that the gearing is positively indestructible by fair use. The journals and bearings of machines which have cut thousands of acres of grass and grain are found, by careful measurement, to be as perfect in all their proportions and relations as when first put together.

It will doubtless, seem to many a strange claim—but chiefly so, we think, because entirely new—that the World is fire proof. It has shown itself to be so on several occasions. A number of machines which had been in barns and other buildings destroyed by fire—supposed at first to be entirely worthless, except for scrap iron—have been returned to the works and refitted, at comparatively slight expense, without renewing a single shaft, wheel, bolt or nut.

Our Self-Rake

Has been subjected to every variety of test and performed all kinds of work; acquitting itself under all circumstances, when properly managed, in the highest degree satisfactory. It has cut in the same field with the best known rakes, and, at all times, such contests have only served to bring the more prominently into notice its peculiar and sriking excellencies. As mechanically constructed as any other part of the machine, adapted to all kinds of work and ground, so manageable that a child, if old enough to govern the team, can control it with perfect safety, and in no sense less efficient than the best rake in use, we commend it to the farmer with confidence that it will prove to be just what he needs.

The machines are sold on this coast by Linforth, Kellogg & Co., No. 3, Front street, S. F., where they can be seen.



THE WORLD SELF-RAKE REAPER.

History of the Verbena.

Verbena melindres, the first scarlet, was introduced into America by Mr. Hogg, of New York, and by him distributed at a reasonable price in 1832. In 1834 it was sold by the wagon load in Philadelphia market; and was, for two or three years, the leading plant. In 1837 *Verbena Tweedicina* was introduced simultaneously, and on board the same ship, by a Philadelphia nurseryman and Mr. George C. Thorburn, of New York. It was considered a superb affair, and sold readily at $3 a plant. In 1838, Mr. Eyre, supercargo of the ship "Globe," brought from Mr. Tweedie, of Buenos Ayres, a paper of Verbena seed, from which were raised the white, rose, pink, and purple varieties. The flower of the white Verbena was exhibited before the Pennsylvania Horticultural Society, and crowds of visitors went the next day to a florists in South Twelfth street to see the plant. There was, the same year, raised in the Glasnevin Botanic Garden, near Dublin, a white Verbena, which they called *V. tencroides*. The stock was sold to a Scotch house for $250, and the Philadelphia variety was sent to an English house. When the two sorts were brought into comparison, they were considered the same. The pink and rose variety went to Edinburgh. One was named *Neillii*, and the other the name of the grower. The purple variety was in part spirited away from the grower; and the balance was sent to the Hendersons of Pine Apple Place, London, and was sent out as *V. Hendersonii*, and had what was called a great run.

Cotton in Bloom.—Mr. Wm. A. Grade, of Hopeton, Merced County, says the *Call*, sends us a specimen of cotton in bloom, from the cotton plantation of Col. J. M. Strong. This is early for the season. Colonel Strong has about three hundred acres in cotton this season, comprising eight different varieties, all of which looks well.

The Wheat Crop.

A special Washington dispatch to the Chicago *Tribune*, under date of June 13th says: Accounts are now in from enough of the wheat-growing States to show that the crop of this year will, in all probability, be less than half what it was last year. In Western New York, and in fact along the lake region of the country, the winter wheat is, as might have been expected from the unusual severity of the past season, atmost a total failure. Other crops have also been severely injured by the late spring. The long-continued wet weather prevails in Iowa, and the crops are suffering greatly.

There is every reason to believe that, with the exception of the fruit crops, all others will be very short, the deficiency being especially heavy in cereals. In fact, 1873 will probably be the worst year we have had since the beginning of the war. The wheat crop is already being harvested in the Southern States, and as far north as the Shenandoah Valley. In some cases it has been very fair, but by the time the great belt of the Central States is reached it is believed that the falling off of the crop will be such as will astonish the country, and affect the financial situation.

The Moss Rose.—The politeness of Mr. I. C. Root of 317 Capp street, secured us the inspection at our office, of a remarkable instance of the "sporting" of a rose bush. From a little five inches in lengh twig, of a genuine moss rose bush, and bearing a beautiful white rose, were also growing two other tiny twigs three inches in length, each bearing a pink rose of full size and perfect bloom.

There had been no budding or grafting upon the bush in any way, to induce the production of the beautiful curiosity; simply a "sport of nature," or of the rose bush, whichever you please to call it, and resulting as above described.

Six Hundred Miles of Pasturage.

Six hundred miles in length by about fifty in breadth, will embrace the area covered by the Sierra Nevada Mountains, or in round numbers about 30,000 square miles. A large part of this vast area is one continuous forest, but dotted here and there with beautiful valleys of greater or less extent, nearly or quite timberless, and large districts in which the forests dwindle to shrubbery, and native and highly nutritious grasses everywhere abound.

It is upon these higher elevations composed of rolling hills and in some instances wide plateau crowding hard upon the eternal snows, that we find the summer retreat of the lower country stock grower, with his flocks and herds around him; and yet with no more danger to either, from wild animals or wilder Indians, than when he is wintering in the Sacramento or San Joaquin Valleys.

Already vast herds, or, as many persistently call them, "bands" of cattle, horses, sheep and goats have taken their departure for these alpine hights, and numerous other bands are ready to follow in their trail. Entire dairy establishments are already established there for the season and their sweet, rich, golden product already occupies its niche in the market places of our cities.

It is a healthy, invigorating, romantic, but solitary life. It is "to be" and yet not to be with your fellow man; and it is what every one tires of, and longs to abandon after three or four years of experience. And happily they almost always can, and generally with a competence, for the business is a lucrative one, with water and pasture for unlimitable herds to be had only at the cost of their taking.

The real value of these lands and the desire to possess them, is already leading to complication; claims and counter claims are being made to the same lands, based upon possession for a longer or shorter period, and, as no government surveys cover any or but a small portion of the same, except in the vicinity of railroad grants, it will probably be a considerable time before an undisputed and positive title can be secured. This will serve to keep back those permanent improvements that might otherwise give increased value to locations by fostering the building of roads, making them more accessible to summer tourists, who would throng the mountain hights and fastnesses for recreation, health and emotional trout-fishing, in which the cañons and ravines of the Sierras everywhere abound.

The Crops East—From a letter received this morning, June 25th, from Castile, Wyoming Co., N. Y., we extract the following: It is very dry with us and has been all the spring. Both winter and spring crops never looked less promising than now. When spring opened, winter wheat was fair, but owing to cold, north winds and dry weather, it has failed from that time till now; we shall not have more than one-fourth of a crop, and of corn not more than half the seed came up, the ground being so cold and dry. The hay crop will be shortened one-half.

CORRESPONDENCE.

Jottings Round San Jose.

EDS. PRESS:—San José, noted as it is for the energy of its surrounding farmors, has been my residence during the past week, and while enjoying my respite from the wind and dust, which so strongly chsracterizes the Queen City of the Pacific Coast, I have visited a few outlying farms, where I knew the stock was worthy of inspection. Of course I visited Coleman Younger's herd first, but shall not further mention them at present, as Mr. Younger has gone East as Delegate to the Agricultural Congress.

Charles Clarke, who lives some five miles on the Milpitas road, is noted for Durhsm cattle, his bull "Lincoln" having taken premiums at the Santa Clara and Bay district fairs since he was a yearling. This bull, which in my opinion is the best ever hred by Coleman Younger, is roan in color, and was calved March 2, 1869; "Lincoln" is hy "Jeff Davis," 12,198, out of "Molly," she by "Ashland," 11,311. My favorite was looking very well and will prove a teaser to a great many this year in the four-year old class, hut his nose will he put out of joint hy his son "John Blake," an all-over red, one-year-old bull calf, out of "Kate Hayes;" "Johnny" is one of the most promising youngsters I have seen this spring.

Mr. I. D. Carr rightly estimating the value of snch stock as Mr. Clarke's, to lay the substratum of the fine heard he is now forming at Salinas City, bought nearly all his cows, leaving Clarke hut two cows and five heifers. Both cows are good, but one's attention is at once rivited on "Molly," a red heifer by "Adolph," 12,813, (the property of Mr. Reardon) out of "May-day," she by "Ashland," 11,311. She is a real heanty and was surrounded by 4 other heifers, all worthy of special notice, had she not heen present. A nico heifer calf closed the list of Durhams.

The Horses

Were next inspected. Among them worthy of notice I found "Grant," a powerful upstanding, brown stallion, 2 years old, by "Ben Franklin" out of "Nancy." "Grant" took a premium at Santa Clara Fair as a foal ruuniug with his mother, who is a very useful bay mare with many very good points, but unknown pedigree. "Abdallah," by Anderson's "Abdallah," an 8-year-old stallion, little, but good, quiet in single or double harness and foot.

This horse would have made a fine stud had ho been fairly used; he has only lately come into Mr. Clarke's hands and is already much improved. Mr. Clarke believing that "hlood will tell" in pigs as well as other animals, has some very good

Essex Pigs.

The bosr is a large well bred beast, whose importation to the neighborhood has occasioned a marked improvement among the porkers. Lovers of pork could not help gazing with admiration upon tho clean-skinned, well rounded form of this boar's progeny, and mentally comparing them with the long, lean mangy looking brntes that may be daily seen by any San Franciscan, wendiug their way towards Butchertown.

The crops around Mr. Clarke's appear quite up to the average; on his own land I noticed tweuty-six acres of barley very promising and a very fine crop of 34 acres of Chili wheat, very level and cleau and promising a yield much above the average. South, along the Coyoto I vistited the farms of Messrs. Reardon and Quinn and was much pleased with the stock of both places. Of Mr. W. Quiun's stock the following appeared to me of most importance: "Lady Sherman," hred hy Coleman Younger, was calved 20 January, 1868, got hy "Jeff Davis," 12198 out of "Rosebud," she by "Ashland" 11311. "Lady Shermau" is a very handsome roan cow, giving a large quantity of milk of a fine quality; she has had three calves all of which promise to turn out first-class animals.

May Queen,

A handsome animal, bred by Quinn and raised by hand. "Molly," by "Ashland," 11311, a first-class cow, real good, as her progeny will show, she being the mother of Mr. Clarke's "Lincoln." My attention was particularly called to the three-quarter graded cow "Kitty," a large fine animal much valued by her owner. Mr Quinn has lately seut away a young bull to Oregon, and if he is as good as reported here, his owner is a lucky man. This hull's place is to be taken by an imported red bull calf "Emmett 3d," bred by R. M. Gano, Bourbon county, Ky. and brought to this State by R. P. Saxe, calved 16 April, 1872, by "Silo" 9097, out of "Emma 2d," she by "Orphan Boy 5th" 7081.

This high bred young Bull promises well, and with such a cross Mr. Quiun ought to be heard of iu the prize lists of future Agricultural Fairs, taking into consideration his imported heifer bred hy the same gentleman as "Emmett 3d." She is red with a little white, and has arrived hut s short time; having apparently suffered from her journey it would be unfair to pass any judgment upon her. She is called "Clara 11th," and was calved July 15th, 1872, and is by "Indian Chief," 10,257 aunt of "Clara 4th," she by "Clarendon," 7,698. Unlike most farmers, Mr. Quinn doesn't grumhle at all in spite of the

Late Frosts.

He acknowledges to a good crop of hay and expects ditto of grain, and to judge from the appearance of the fine level piece of wheat I saw, his expectations will he realized.

Down in the lower field were as fino a lot of colts as a man could wish to see, one in particlar, a Patchen colt, can hardly be excelled for symmetry and strength; there was a fine span of Hambletonians, and "Stockbridge Chief" was represented hy a low, hut extremely well put together filly. Mr. Reardon is as yet little known as a Stock man hut hss received several premiums for his butter, a large quantity of which he is at present packing for Nevada; the hutter is of a good oolor and as firm as a rock. The produce of the teeming valley of Santa Clara will no douht he much appreciated by those who have nothing fairer to dwell on than sage brush and rocks. He is now, however, ambitious of greater things and is going in for "Shorthorns."

Mr. Reardon possesses the principal element of success—perseverance. He told me when he settled there eleven years ago, a poor man, there was not a fence on the ground; now things are altered; a commodious dwelling-house of pleasing appearance, smiles upon you from the center of a carefnlly cultivated orchard and gsrden and a large barn built on the newest and hest principles, with rat proof granary, etc., testifies to the prosperity of this farm.

In raising stock, Mr. Reardon has more than the bare ground to start upon, he heing already the possessor of two good bulls and some usofnl thoroughbred and graded stock. The hull "Rudolph" 12,813 hred by Coleman. Younger, is not a show animal, never having heen taken much care of his ability to get good stock no one csn deny who has seen Clarke's "Molly," previously described by me. "Rudolph" is a very valuable hull to Mr. Reardon. "Tom Moore" is a hsndsome yearliug bull by "Tyrone" out of "Bonny Bell." "Tom Moore" will, I thiuk, prove a credit to him and to his owner.

"Kate Hsyes," is own sister to "Tom Moore," and a very good cow. "Flora" is also a fine grown four-year-old cow. Both of these animals are accredited with pure progeny, and somo of the calves are very fine, especislly a red bull calf by "Rudolph" out of "Kate Hayes," and a heifer calf by "Tyrone" out of "Flora." Mr. Reardon does not do much in horses, but has raised somo valuabla draught stock hy Blake's stallion.

I cannot close this letter without drawing the attention of horse breeders to the stallion "British Champion." He was bred by Isaac Broomfleet, Yorkshire, England, stands 16¾ hands high, is a rich bay with black points. The reason I allude to this horse is, his apparent ability to get a class of horses much needed, particularly in the city, viz: Animals of great power, coupled with a fair amount of speed without great weight.

This horse is what is called in England a coach or van horse, and would, I believe, obobtain the desired resnlt now attempted hy crosses with Suffolk, Punch and Clydesdale stock. This horse is accompanied by "Brittou," an imported Suffolk Punch stallion of very high order. The environs of San José are so attractive to the lovers of fine stock that I hope you will forgive the length of this letter.

GEORGE MARTIN.

Crops in Los Angeles.

EDITORS RURAL PRESS:—The grain crops are generally good, particularly where parties were wise enough to sow their seed BEFORE the rains commenced to fall.

Iu the immediate vicinity of Los Angeles, the crops are fully up to ordinary years. A crop of 1,000 acres of wheat sown by a prominent citizen on the east bank of the Los Angeles, is of extra quality, in regard to yield and quality of the grain. This field was sowu in time, that is, before the rains.

In El Monte, at Los Nietos, at Richland, and in fact, all over the county, the farmers are blessed with good returns for their labors. It is certainly wonderful that our crops should be universally good, when we have not had *one drop* of rain since the latter part of *February*.

Is this not sufficient evidence that we livo in the most wonderful country in the world; no other country can triumph so successfnlly over persistent drouth without irrigation; only in rare instances do we irrigate grain in this county.

The Grape Crop

Will be botter than was thought soon after the April frosts; some vineyards in Los Angeles and Anaheim suffered sadly, and tho yield will be light. The majority of vineyards, however, have recuperated and it is now conceded will yield a full crop.

At Mission San Gabriel and other elevated points, escaped the frost entirely, and in a particular manner Richlaud district on the east side of the Santa Anna river, some 5 miles from Anaheim. This District is entirely free from frost. Tomato vines not even damaged by the great April frost.

This tract of unexceptionable land of 6,000 acres was owned by A. B. Chapman, Esq., & Co. About 2,000 acres remain unsold.

By the way, Mr. Editor, people are in the habit of complaining about the high price of laud down here, which iu this instauce can be easily refuted. Thero is the best of semi-tropical fruit lands, free from frost aud watered hy the Santa Anna river through the A. B. Chapman canal, offered at $30 per acre. Terms easy. Who will now say that lands are too high in Los Angeles county. Other public spirited men, owning largo tracts of the best of fruit lands, are heginning to profit hy Mr. Chapman's example, and offering aud preparing to offer their lsnds iu lots to suit those desiring to locate in the Eden of the United States.

Hero most truly a man can sit under his own vine and fig tree and no Modocs to molest or make him afraid.

I should have remarked that large qusntities of land sontherly from Richland enjoys the same climatic advantages, and is heing settled rapidly. About 100,000 vines and 20,000 fruit trees were planted this year at Richlsnd, and the people are energetic and active and proposing to plant more extensively next year. They have a Farmers' Club, meet regularly and profit thereby.

The orange crop will he au extraordinary one this year. Limes and lemons will produce handsomely, and the nut crop a full one.

THOS. A. GAREY.

Los Angeles, Juno 7, 1873.

A Trip Through Napa Valley.

EDITORS RURAL PRESS:—I find iu the lower portion of the Valley the grain looking very light, but as we arrive near the central portion it appears somewhat better. It will possibly furnish a much hetter yield throughout the Valley than is expected. The hay crop is nearly sll cut and is quite light. Some of the grain is heing cut, and a few days more will bring the farmer's to the most busy season. The fruit-crop is also looking below an average. Grapes, notwithstanding the frosts and the expectations of a failure, will come nearly to one half an average yield.

In consulting with some of the farmers, among which was Mr. G. B. Crane, member of the committee appointed to investigate the extent of damage by frost to the grape crop of Napa and Sonoma, etc., and the possible yield, the amount is estimated by him at about one-fourth what it probably would have been were it not for the frost. The farmers have just organized a grange at St. Helcua.

We visited the ground for the new Iusano Asylum, which we found of much interest, located about two mile southeast from Napa City, near the foothills. A hetter location possibly conld not have heen selected in the State, having every facility for building, and the cli without fault, as all can testify who visit Napa Valley. The location is on a slight elevation, with about 208 acres of fine land counected, which has a gentle slope, extending towards the middle of the Valley. The land was purchased at the expense of $12,476.

The elevation commands a fine view of the surrounding country. The front view presents a beautiful landscape, composed of the main Valley, dotted here and there with farm-houses, and the different shades appearing from the golden grain blending in the distance with the green foliage. A little to the right Napa City and the low range of mountains beyond, furnish a fine back ground, while awsy in the southwest Mount Tsmalapais looms up in the murky shades, and at the north Mount St. Helena can be seen quite distinctly.

The stone to be used is quarried from the foothills, within a half mile; while the material for the hrick is obtained within a few rods and of a superior quality, from which first-class brick are being made. A bountiful supply of the very purest of water is furnished from reservoirs built in the cañon, about a mile and a half above. The work is progressing well, excsvating for tho foundation is being done, and a portion of the lower walls are laid. The building is to be a fine massive structure. We get the following information from Mr. Tucker, Superintendent, and, Mr. W. C. Watson, Secretary and Treasurer of the Board, and a draft which was presented us:

It is to be of Gothic style, tho basement of stone for outside walls, with brick for the inner work. The upper walls of brick, with pressed brick to be nsed on the outside, lined with stone. The main building or front, which extends 288 feet north and south, and 70 fect deep, to he four stories high, clear of the basement, with a magnificent tower in the center. A portion of the building in the center projects several feet heyond the remainder, which, with the position of the wings, gives the whole a circular appearanco. There are four large bay windows in front at each story. From the center, running directly back, is a wing 250 feet long and 50 feet wide, two stories high. To the right and left of the main building are wings at right augles, running directly back 136 feet, then at an angle of 45° towards the center 120 ft. (each of these wings are to he three stories high), again running hacck 96 feet parallel with and beyond the center wing, with a T across the end, of 96 by 26 fect. These wiugs are to be two stories high. In the rear of the center wing, abont 80 feet distant, are the cook-rooms, etc. Building 136 by 56 feet.

To the right and back about 68 feet from this is the deadhouse, 50 by 25 feet, and also to tho left and back about 20 feet distant, is the workshop, etc., 57 by 25 feet. Three smaller towers are to be on each side, 50 feet high each. One is to be at each corner of the main front, and one at esch of the two breaks formed by the two angles of the wings on each side.

A fino roadway ruuning arouud and near the building, 40 ft. wide, and surrounding this, about 75 feet distant, is to he a beautiful terrace, which is now being graded. Near the main front corners of the building, and at the center directly in front, are to he five single jet fountains.

Two hundred and fifty thousand dollars is the first and present appropriation towards the building. The whole cost of the building, etc,, is not to exceed six hundred thousand dollars. Dr. J. F. Morse, of San Francisco, is President of the bosrd; J. H. Jewett, of Marysville, C. Houston, R. H. Sterling and J. H. Goodmau, of Napa, Directors.

Strong northerly winds are prevailing here now, which are very warm and drying. Considerable excitement is noticed with regard to the new gold discoveries near hy.

F. G. SACKET.

Calistoga, June 18th, 1873.

Alkaline Soils.

EDITORS RURAL PRESS:—I am pleased to see that you give the privilege of asking and answering questions through your widely circulated paper; this I think is just as it should he with a "Farmers' Paper," for no one farmer "knows it all" and each one should he willing to receive instruction from, and impsrt it to others.

Oue thing with which we farmers in this "lower region" have to contend is the presence of alkali in the soil, which is very injurious to certain kinds of vegetation. Now what I want to know is, can you or any of your numerous readers tell what will neutralize the effect of alkali in the soil? Will manure he of benefit or not, or will any certain kind of vegetsble, or anything thst csn be grown draw the alkali from the soil so as to be of any permanent benefit? I also wish to know if irrigation is injurious to a soil containing more or less alksli? I would like to have these questions answered. J. E. MC.

Compton, Los Angeles Co., June 14th, 1873.

There has been a good deal of discussion on the subject of alkaline soils in the columns of the PRESS; hut hardly auy two agree upon the same course of treatment as a remedy for an excess of alkali. A few have been successful in a degree, by the application and plowing in of coarse straw maunres. But the effect is only temporary, or for a year or two, as far as we have been able to learn.

Irrigstion where it can be continued for a considerable time and so abundant as to flow in large volume upon the land and *then off from it*, will carry sway much of the alkali from the surface soil; but the good effects from this plan are not permaneut, unless the irrigation is repeated every two or three years. To irrigate upon the surface will draw out from the soil considerable strength of alkali, hnt if the water so saturated is allowed to stand and evaporate upon the same ground, the salt remains and no good effect results.

All kinds of beets are remarkable for extracting alkali from the soil, and three successive crops will render tho worst soils adapted to a growth of wheat; but this again is not permaneut, and has to be repeated at intervals of 2 or 3 years. We would like to hear from those of our readers who have this year experimented upon alkaline soils.

Barren Fig Trees.

EDITORS PRESS:—In a late number of the RURAL PRESS, there appeared a communication from "E. W. M." concerning the "barrenness of fig trees," aud some suggestions thereon.

Having had some experience with these unfaithful fig trees, I will mention a few items that may be of interest.

I have a variety of the fig that always falls off, when about half growu, aud think the canse arises from the blight of the blossoms, and, consequently the fruit fails to "set."

Among my trees there are several other varieties that never fail to produce a good crop, therefore the fault appears to be due to the kind of tree, and not in its soil, location, etc. Certain varieties of the cherry and plum blight in the same manner, in certain localities.

My remedy for this evil is to graft them over with thrifty, productive kinds that do not blight. But, knowing that the fig is a hard tree to bud and to make grow successfully, I will mention a method that has, hitherto, in my experience been found sure and certain.

If the trees have large limbs, saw them off, in the month of February, within from two to six feet feet of the main stem, or of the larger limbs. Then allow two shoots to grow from near the end of these stumps, keeping all others rubbed off.

These shoots should be "budded" as soon as they have become the thickness of one's finger, taking the green buds from the young growth.

By cutting shoots from good varieties, in the winter season, and *keeping them back*, many of the small limbs may be budded in the Spring, after the trees begin to grow. Tho bark of the fig tree heing of such thickness, it is important to wrap the bud very closely. For this purpose, waxed cloth is very suitahte, (such as is nsed for root grafting), torn in narrow strips, and hound tightly around the limh, thus excluding all air from the bud. If the bark is very thick cut out a little of its edges arouud tho stem of the bud.

In this way I have obtaiued a small crop of late figs the same season. THEO.

Vacaville, Solano Co., June, 1873.

Home and Farm.

Wayside Growths.

Editors Press:—It has come at last—"epizooty"—and found us all,—men, women and children—expectant. Horseflesh, quite unconscious, met it in the last furrow, or up to the knees (?) in bunch grass and clover. It is a disease with an appetite and has taken kindly to its dumb subjects. Owners of horseflesh took it first, I can't say whether they kept their appetites, but quite a number found their feet and performed unaccustomed feats of pedestrianism before their wondering nags learned the significance of a sneeze. Epy could not have chosen a better time for either party. Fine weather and plenty of green feed for the brute patient, in most cases the planting all done; no heavy rain to pack the freshly stirred soil and no fight with weeds to make hurried plowing a necessity, as in locations subject to frequent summer rains. The frosts of the 4th and 5th of April, were less serious than appeared from the first outlook. The frosts of the 27th inst. nipped corn lightly, topped our potato vines, more than decimated melon vines and other tender vegetables, and with the high winds which held carnival several preceding days, cut off the grapes in several locations; those on high ground generally escaped. Still we have left apples without stint, pears ditto, plums and peaches worth waiting for, a generous first installment of cherry pie and plenty more in prospect if only the birds will be as considerate of our appetites as jack has been. Early in the season, a heavy grain crop was generally prophesied, but having had no rain in May to compensate for the limited rain fall of April, expectations are correspondingly abridged. The wheat in some fields is said to have suffered from the late frost; to what extent the crop is injured is not known. The hay crop is fine, and all growing crops, including corn and vegetables not materially injured by frost, are a healthy color and promise "daily bread" for which to give thanks.

The wool crop is not only increased in quantity, but improved in quality, over last season's clip, and pretty generally disposed of at remunerative prices. Everybody who has the pasturage wants to buy sheep, and nobody who has both is willing to sell any but mutton sheep, and one can hardly get a taste of mutton except through "love or good will," so few owners can see it for the wool. The common sheep — Mexicau Merinos — with grades of Southdown and Cotswold are the breeds most generally found in this vicinity. In crossing the pasture to visit a neighbor—where love and good will dispense fat mutton as the best of neighborly offices—I have made acquaintance with a fine flock of motherly ewes more or less Cotswold in character, the lambs having three-fourths and full blood sires of that breed. From their owner, Mr. John Mewhenny, I learn that the 235 ewes have 247 lambs, 140 of them being twins.

Alfalfa sowed last November on the meadow lands of three adjoining farms, proved an utter failure. It came up in good time, but was killed by wet and severe frosts. Some experimental patches sown in the spring of '71, are established facts, and from my window I can see a field of 18 acres sown in March, which came up well and promises to meet the demand for a grass that will furnish green feed in the dry as well as the wet season. To the eye that field is gay with the bloom of mustard, which, while I write, is being cut by the mower. It seems impossible to get reasonably pure seed. The Novemher sowed Alfalfa produced a spring crop of mustard, radish and rutabaga, or what looked like such. There seems to have been more frost than usual during the fall and early winter, and the oldest inhabitants—setlers of '58—assure me, that only once since that date has a late frost, like that of the 27th, been known in this valley.

But the dwellers in homes are interested in other growths than the products of the field. Like most women who have done a fair share of thinking in humane directions, I am very much interested in the discipline, appointments and labor of prisons—regarding convict labor as involved in the great struggle of labor for its rights—not as against capital, but justice blindfold.

In the proceedings of the California Farmers' Union at San Francisco, April 8th, I noticed a resolution instructing the Executive Committee of that body "to consider the propriety of utilizing State Prison lahor in the production of grain sacks for home use, to he sold to the farmers *at cost.*" The San Francisco *Daily Morning Call*, under the head, "*Convict Labor*," says, "In fact it would not be expecting to much if their" (the prisoners) industry added something to the State Treasury beside '(self-support)' as the imprisoned convicts are made to do in Massachusetts." The *Call* then proceeds to say that, "there are occupations to which convict lahor might be applied without coming in competition with honest laborers and operatives."

The points which arrosted my attention in these utterances were, first, the confiscation of the prisoner's labor to the enrichment of the State.

Now, Mr. Editor, our National and State Constitution forbids the "forfeiture" or confiscation of the estate for crime. A man's estate — real and personal — represents lahor, in the embodiment of *earnings* which are the rtghtful estate of every man, rich or poor. As dangerous to society by the ahuse of his faculties, the criminal may be restrained, imprisoned and made to support himself by honest industry. Unquestionably a percentage of his earnings may be applied as a sinking fund to liquidate expenses incurred in the support of a prision system which his own bad conduct has conspired to make a necessity. But heyond this the State has neither a constitutional nor a moral right to confiscate the prisoner's earnings from the support of his family if he has one, from himself, if he has none. His crime cannot alienate from wife or children their right to be supported, educated, trained, by the half of his earnings, if to earn in such hehalf is possihle of just legal restraint. And the knowledge that his earnings will he so applied, would undouhtedly stimulate many a convict to put forth his hest efforts as a lahorer and open his heart to wisely directed efforts for his reformation. For it cannot he denied that the consciously unjust confiscation of his earniugs by the State embitters and hardens his heart against Christian sympathy and henevolence. The second suggestion of the *Call*, which seems to harmonize with the purchase "*at cost*" of the grain-sack resolution of the Farmers' Union, is the implied denial or ignoring of the convict's right to compete with *honest* (unconvicted of crime?) lahorers in the prosecution of honorahle industries. Now it is not his lawful earnings, nor his right to perform lawful labor of which criminal courts take cognisance, hut the dishones or unlawful practices of the laborer for which he is convicted and imprisoned. His right to lahor inheres beyond the jurisdiction of Legistures and courts. The possession of a faculty is God's guarantee of his right to use it. And his duty to do so for self-development, self-support and the benefit of those dependent upon him and involved with him in the necessities of society—is taught not only from Genesis to Revelations, but also hy that necessity for labor which inheres as a law of physical and mental health. The right to lahor carries with it the right to the avails and profits of successful competition. And society, which offers rewards and premiums to oxhibitors of superior capacity, tact or skill in the industrial line. recognizes that right and enhances its value. The competition of convict labor, which has aroused the antagonism of free operatives and reacted to depress and discourage prison industries, is a competition unjust to both classes of laborers—it is simply convict labor made to underhid free labor in the market prices of its manufactures. This antagonism would cease were the convict's labor priced according to its value and the claims of his helpless children or infirm parents acknowledged as a lien upon it. But I fear I am trespassing upon your space—perhaps your good nature. A word about the Press Mr. Editor. In a late issue of your paper you suggest as a motive for its extended circulation, the influence it would exert in promoting immigration. As a second to your "motion," I sent a number to a Kansas acquaintance, and he writes that he at once suhscribed for the Press, was passing it around, and the forming of a colony for California was already under consideration. This is only one of several instances in which I have sent the Rural (when I could get a duplicate copy) to inquiries, with a similar response. A copy of your paper sent gratis to the Reading-room, Lyceum, or Grange of the principal villages north of Mason & Dixon's line would, I helieve, be a paying speculation to your publishing firm and double the population of your State within two years. I say north of Dixon's line with reference to climate, which is becoming more and more a matter of serious consideration to inhabitants of the cold and stormy latitudes of our country, now that railroads have made a change of location to warmer latitudes comparatively easy. The growing of semi-tropical fruits, the "sitting under one's own vine," etc., which your correspondents show to be possibilities in so many sections of California, have a moving influence on persons of culture and lovers of the heautiful. I do not say that even a majority of those who come would not suffer feelings of regret and disappointment. No exchange of homes is exempt from these. Eden itself would need no serpents to breed disconteut for a time in the heart of man or woman who has left old friends and comfortable conditions to create them anew.

C. I. H. Nichols.

Wealth.—Mad attempts to obtain are seldom crowned with success. If does not seem destined to man that he should acquire riches without labor; and heredit·ary descents, and the accumulation of wealth from one generation to another, are adduced as instances in contradiction to this principle, they cease to be so when duly examined. We will be bold to say, that scarce a generation passes away, between the original founder of family greatness and his successors, when if the duties that such possessions impose, and which are labors in the kind, have been neglected, the wealth and riches of that family have not been removed; for though we are apt to account for such circumstances by attributing them too frequently to contingencies, misfortunes and to *chance*, yet be assured there is more of a higher influence in our individual destinies than mankind in general ready to allow.

Miscellaneous.

To Europe in a Balloon.

It is well known to most of our readers that Prof. Wise, the famous æronaut, has long contemplated a voyage to Europe, in a balloon. The object is not a mere foolhardy attempt to do what no one else has done; hut the voyage is taken purely in the aid of science. The Professor expects by the trip to prove the correctness of a long held theory of his, that the entire equatorial atmosphere of the earth moves constantly eastward with the earth's revolution, and at a rate considerably faster than the earth, just as water is thrown forward from a rapidly revolving grindstone. He thinks that a centrifugal force is that generated by which the air current moves forward at the rate of 100 miles an hour, and he proposes to asceud into this current, and be carried along with it. He thinks he can thus cross the ocean in from 60 to 70 honrs.

It is stated that Prof. Henry and other distinguished scientists, fully agree with Prof. Wise, and have faith in the result of the proposed voyage, hoth because it is reasonable, and because in almost in all cases when balloons have reached any considerable altitude they have invariably moved rapidly East. Prof. Wise has made 446 ascensions, and has been swept rapidly to the eastward in fully 96 out of 100 ascents, during which he has reached any considerable altitude.

It is proposed to construct a balloon with a capacity for carrying five tous. The Professor will take with him three other scientific gentlemen—a very large number being anxions to share the honor, and from whom he can take his choice. The "car" will consist of a closed room with glass windows on all sides, and will contain a lime stove capable of furnishing all the warmth with which to make the party comfortable. An excellent apparatus will also furnish light. If the balloon threatens to fall into the water, the æronauts will descend into a Francis metallic life-boat, which will he carried beneath the car, well provisioned and supplied with oars, and so constructed that it can neither sink or founder. It can he readily cut loose as soon as the drag, which will in such emergency be thrown from the balloon, has sufficiently checked the speed of the air ship to make such a movement safe.

It was expected that the balloon would leave Boston Commons as an important feature of the city celebration for the Fourth of July next; but the recent fire there and further loss of two millions of property, has induced a spasm of economy in the city government, which has delayed the trip for the present. It is confidently believed, however, that the money needed—$3,000—will soon he forthcoming to enable the anxious scientists to start upon their novel and adventurous voyage.

Supposed Evidence of Man in the Miocene.—Mr. Frank Calvert, an eminent archæologist communicates an interesting discovery, which he has recently made in beds regarded as Miocene Territory, bones of animals having etchings upon them of the figures of other animals. If there is no mistake about the character of the deposit, this discovery would carry back the existence of man upon the earth, to a period immensely more remote than has yet been ascertained by scientific research—to a much earlier date, even, than can be ascribed to the human remains reported to have been found in the deep gravel mines of California—under Table Mountain, etc. The earliest reference of the latter are only to the pliocene, and it is considered doubtful if they can be referred back even as far as that. The evidence of geological investigation seems to establish the fact that man has existed on the earth for a period infinitely longer than has generally been assigned to him in past centuries.

New Material for Gas Manufacture.—Mr. John Sellars, a manufacturing chemist, of Birkenhead (Eng.), has a novel composition of matter for use in the place of coal, cannel, etc., in the manufacture of illuminating gas. The composition consists of a mixture of seaweed, sea-grass, sea-rack, or the like, with coal-tar, pitch, bitumen, mineral, oils, etc., either with or without peat, charcoal, or other carhonaceous matter, which mixed matter is subjected to destructive distillation iu retorts. The advantages claimed are more effective separation of the light hydro-carbons; second, increased yield of carburetted hydrogen, and the production of coke particularly valuable in the manufacture of metal-foundries' blacking.

American Locomotives are becoming quite popular in Russia, as they are the only locomotives in the world adapted for burning anthracite coal, of which Russia possesses large deposits. Work in the coal mines in Catherinoslaw, in the province of Don, continues very active, and the mines are being worked with much success. The coal which is there produced supplies several lines of railroads in various parts of the empire. Since the completion of the Voronge-Rostow railroad line, they are occupied in transforming the machinery in order to use anthracite for fuel. It is said that Europe does not manufacture locomotives suitcd for this kind of fuel; they are only made in America.

Intra-Mercurial Planets.

There is just now much speculation as to the existence of one or more planets moving in orbits between Mercury and the sun, and facts bearing on the subject are fast being accumulated. Prof. Kirkwood, of Bloomington, Indiana, in April last sent a communication to the *Chicago Tribune*, in which he endeavored to show that certain recent ohservations of spots passing over the sun's disk pointed to the existence of a small intra-mercurial planet, having a revolution around the sun of about thirty-five days.

More recently he writes in the same journal that there are other observations which cannot be referred to the same body, and supposes another planet with a revolution of betwecn sixteen and seventeen days.

Observations recorded by experienced observers are quite too numerous to be attributed to any optical deceptions, and seem in fact to indicate the existence of a zone of minor planets, or asteroids within the orbit of Mercnry, similar to that known to exist between the orbits of Mars and Jupiter.

As a farther evidence of the existence of one or more bodies as indicated is a disturbing influence in the motion of Mercury, which can only be explained hy the existence of snch a hody or hodies. At a recent meeting of the Manchester, (Eng.) Philosophical Society, a member, Mr. Sidehotham, also a Fellow of the Royal Astronomical Society, referred to certain ohservations of his own, as long ago as 1849, which point to the same facts. Observations of a similar character have been noted by others in 1802, 1819 and 1847. The increased interest just now manifested, in astronomical research will probably lead to an early and definite solution of this interesting problem.

Improvements in Iron Manufacture.—Since the improvements made hy Siemens, Bessemer, Heaton, Danks and others, in the methods of pnrification of iron and the manufacture of steel, much ingenuity has been expended in perfecting the various processes, and among others engaged in such experiments is Mr. Parkes, an account of whose investigation appears in the London *Athenæum*. The peculiar feature of the process devised by this inventor is the purification of iron from sulphur and phosphorus by injecting into it, when melted, compounds of chlorine or fluorine. By melting the wrought iron with carbon, together with some chlorides and alkalies, it is converted into steel. A more recent, and it would appear, more important improvement in the process of steel manufacture, is that which has been brought forward by some French chemists, and which is based on the partial decarbonization of the iron, under the influence of a rich oxide of the metal. This is a method which, it is stated, has been known for some time, but has not been put in practice on acconnt of the deterioration caused by it in the sides of the crucible. In the process as now improved, the iron and mineral are placed in metallic molds, and brought to a red heat in special furnaces. The reaction is produced and the melting does not take place until after the transformation. Ingots are thus obtained, melted in the crucibles or in a reverberating furnace.

The Hardening of Swords in Solingen is done in the following manner. The swords are placed in a coke fire, with tnyeres below, and are heated to a uniform cherry red. Before oooling the edges are drawn through wet coal dust, whereupon the whole sword, the strong end first, is dipped into water and quickly withdrawn. When five swords have thus been treated, another man anneals them until they appear blue, testing them also in a clamp for their elasticity. Finally they are annealed gray. The interior thus remains soft, while the exterior becomes hard.

Narrow-Gauge Passenger Cars, as generally constructed, stand thirteen inches nearer the rail, and have about fifteen inches less overhang at the side; hence the center of gravity is considerably lower than on the standard gauge, making the carridevery steady, and with less oscillating motion than is usually observable upon the wide gauge. The seats, thirty-six to a car, are arranged douhle on one side and single on the other, with the order reversed midway of the car, to distribute the weight equally.

Decarbonization of Iron.—Fenner's process has recently received encomiums from high authorities. Plates of cast-iron, varying from one-half to three-quarters of an inch in thickness are packed in sand, enclosed in chests, and heated for the space of several weeks to a red heat, arrangements being made to ensure a free circulation of air; a fusible slag is formed from the impurities, and is removed without difficulty.

Iron Vessels, for the transport of spirits, are found to be free from many of the defects of wooden ones, especially such as cause loss. They are made of sheets less than one-tenth of an inch thick, of cylindrical form, about forty-seven inches long and thirty-two inches in diameter, with ends slightly convex. The bung is closed by rubber disks, and protected by wooden hoops on each side; there are thin iron hoops around each end, and the interior is protected from rustiug hy a coating of gum or dextrine.

Farmers in Council.

Farmer's Club of Sacramento.

The Club met on the 21st, (Saturday), Vice-President E. F. Aiken in the chair.

Captain William Haynie here rose and said that he felt that an apology was due from him to the Club for language used by himself to members of the Club and to the Chairman at the last meeting, and he desired to offer that apology now. From remarks that were made by members at the time, he became somewhat excited and used language which, upon reflection, he saw he was not justified in using, and he hoped the Club would accept this acknowledgment as his apology. The apology was, on motion, accepted by vote of the Club.

National Pomological Fair.

The Secretary called attention to an article published in the morning *Record* in relation to this subject, and read extracts from the premium list offered for the exhibition of different varieties of fruit. The *Records'* article asserted, and he believed it to be true, that if the proper efforts were made California might secure quite a large number of the premiums offered, especially the silver medal and fifty dollars for the best exhibition of apples; the same for pears, grapes, raisins, preserved figs, and dried and preserved fruits; that a good exhibition would attract the attention of fruit growers and others, and would be a good advertisement for the fruit growing capacity of the State; that, farther, the National Society would some day hold its exhibitiou in our State, if we took sufficient interest in it and sent good delegates to its sessions, and perhaps we might secure the next exhibition, in 1875, with proper effort.

Mr. Amos Adams moved that a committee consisting of I. N. Hoag, A. S. Greenlaw, E. F. Aiken and James Rutter be appointed to make all the necessary arraugements, collect fruit and send the same for exhibition at the fair, and that the necessary expenses be paid out of the funds of the Cluh, aud that any premiums received be the property of the Club.

This resolution brought out a lively discussion between the members as to whether the Club had better make the exhibition independently or through the State Agricultural Society, some favoring the one proposition and some the other, but all advocating the propriety and importance of the exhibition in some form.

The result was, on motion of the Secretary, finally amended by adding the uame of Amos Adams to the committee and instructing the committee to consult with the State Board of Agriculture at its next meeting, and report the result of such consultation to the Club.

Wormy Apples.

Mr. Greenlaw inquired if any of the members had noticed worms in their apples this year.

The Secretary said his attention had been called to the presence of a small white worm in the core of quite a number of apples on a tree of the early harvest variety. That there semed to he a greater plenty of them this year than usual.

Mr. Greenlaw said he had noticed the same thing in the red astracan variety—a thing not before noticed by him in the State. He had also noticed a sort of gray beetle stinging the bark of his fruit trees. The insect was abont three-quarters of an inch in length. It had a large head, and tapered to a point at the end of the tail, and seemed to be furnished with the power of penetrating the bark of the tree and fastening its tail so firmly as to cause the insect itself to break in two when an attempt was made to pull it off. He would secure some of the insects and bring them in to the next meeting of the club.

Early Peaches.

Mr. Aiken exhibited to the cluh specimens of Hale's Early and the Beatrice peaches just ripening. The Hales were among the finest specimens we ever saw of that variety—large and well colored and flavored. Mr. A. was the first to introduce this valuable peach into the State, and has a large numher of trees in good hearing this season.

The Beatrice specimens were grown on trees fruiting this year for the first time, having heen imported hy Mr. A. only one year ago last Fehruary, from the nursery of Mr. Rivers, an eminent pomologist of Sawbridgeworth, England, the trees then being in the dormant hud. The specimens were not large, but when the trees have grown to size and have age, the peaches grow larger and ripen some twenty days earlier than the Hales. They are a bright red and very valuable peach. Mr. A. stated that he was growing six varieties of peaches; he had also imported from Mr. Rivers' nurseries some of which were said to be much earlier than the Beatrice.

The regular subject of discussion—How to dispose of the surplus fruits in this vicinity—was laid over to the next meeting, and the club adjourned for two weeks.—*Sac. Record.*

San Joaquin Agricultural Society.

A meeting of the Board of Managers of the San Joaquin Valley Agricultural Society was held on Saturday, 21st instant, Colonel Dorsey President in the chair. There were present Messrs. Hitchcock, O'Brien, Hinds and Compton. The reading of the minutes of previous meeting was, on motion, dispensed with. The matter of providing a suitable hall or pavilion for holding the next fair was referred to the Hall Committee, consisting of Messrs. O'Brien, Hinds and Compton. On motion of Mr. Hinds, the previous action of the Board, fixing the time for holding the next anuual fair of the society, was reconsidered. Mr. O'Brien moved that the thirteenth annual fair of this society commence on Tuesday, the 23d day of September, 1873, and continue fonr days, closing on the evening of Friday, the 26th. Carried unanimously. On motion, a special committee, consisting of Messrs. O'Brien and Hinds, was appointed, whose duty it shall be to negotiate for the printing and advertising necessary for the present year. A special committee, consisting of Messrs. Hitchcock, Needham and Hinds, was appointed for the purpose of arranging a special programme. All committees were instructed to report at the next meeting of the Board. The Secretary was instructed to notify all the Honorary Vice Presidents of the time and place of holding their next meeting and to tender them a cordial invitation to be present on that occasion. Adjourned to meet on Tuesday, July 7th, at 1 o'clock P. M., at the office of the Secretary.—*Independent.*

San Jose Farmers' Club.

Club met June 21, President Casey presiding.

Mr. Ware, from the Sack Committee, reported that instead of engaging sacks two or three months ago, as some societies had, they had waited until now, and have the advantage of the fall in prices consequent ou the shortening of the crop.

The Committee could obtain sacks in San Francisco for 14½ cents for 22x36 sacks on 90 days time without interest. From the present aspect of the crops, he thought the price would remain firm at that, with a prospect of an advance. The lowest figure for second-hand sacks is 11¾ cents. Mr. Ware said, for himself, he could do better, but whether the Club can do as well is for them to say.

Bagging can be had for 12 cents, and the thread per sack will be ¼ cent, and the cost of making another ½ cent per sack; but this is uot the best Gilroy standard.

Mr. Ware wanted to know the proper time for pulling flax for lint.

Mr. Woodhams wanted to know when to pull it for seed.

Mr. Cadwell said if it was pulled for lint, it should he done just before the seed was perfectly ripe.

Mr. Bergland said flax is ripe when the seed is ripe, and is good for no purpose until this time. When the seed is ripe, and tho under leaves are turning yellow, is the time to pull it for either lint or seed.

Mr. Erkson wanted to know the best method of rotting flax.

Mr. Bergland said that in his country the sheaves were formed in rafts and sunk in the water; dew-rotted flax is not good.

Mr. Ware said he sowed his flax on the 12th of May, and had no water on it except such as he run over it for irrigation. Some of it is three feet high, and some only sixteen or eighteen inches. The shorter is very shruhhy, but indicates a much larger yield of seed than the higher. The seed he sowed must have been mixed in the proportion of six to one in favor of the shorter variety. He sowed twenty-five pounds on a third of an acre.

The resolution in regard to the decision of the Supreme Court in relation to solvent dehts was renewed.

Mr. Hohson read a portion of the opinion rendered by the Court in the premises.

Mr. Holloway said that by this decision our tax list was reduced about $4,000,000, and the property holders have to make this up. He wanted to know what respect a decision of this character is entitled to at the hands of the people. On this very subject the Snpreme Conrt has delivered six conflicting decisions within the last fifteen years. He said that the argument that the borrower had to pay double taxes, was the veriest pettifogging; the borrowers didn't bring the suit in which the decision was rendered; it was hrought by the money lenders, and the desision is in their favor, and consequently against the borrower.

He held that the Court went beyond its legitimate sphere when it instituted inquiries into the details of business transactions of private parties. He was informed that Judge Crockett, who wrote this decision, only a couple of years ago delivered an opinion directly opposed to the ground now takeu. The speaker helieved that the decision furnished good and sufficient ground for impeachment.

Mr. Hobson considered the decision a one-sided argument, and evinced poor judgment; he didn't think intelligent men would have delivered such a decision; that it was a palpable violatiou of the provisions of the Constitution. He held that the decision is an inducement to fraud.

Mr. Garrigus said it was universally conceded among the farmers and mechanics that the decision is an unjust one and will bear heavily on the indnstrial classes. He considered, however, that the decision would do good, by waking up the people to a sense of their duties, and would hasten the time of action.

Mr. Caldwell moved the passage of the resolution.

Resolution adopted.

Adjourned.—*San Jose Mercury.*

Grape Growers' Association.

Pursuant to adjournment, tbe Grape Growers met in Sonoma, June 7th, Major J. R. Snyder in the Chair.

Roll called. Present—H. Appletou, N. Carriger, O. W. Craig, A. S. Edwards, L. Goss, J. Gnnlach, W. McP. Hill, Arpad Harazthy, A. Y. Harazthy, Adam Kitz, J. R. Snyder, A. Wohler, J. B. Warfield, G. L. Wrattan, G. B. Crane. C. Crug, J. A. Lockwood.

Minutes of previous meeting read, corrected and adopted.

First business in order heing reports of Standing Committees. Dr. Lockwood, from Committee on Vines, read a report on the vine disease of France, termed Phylloxora.

From Special Committee appointed by the last meeting to report on the present grape prospect, as affected by frosts of April 5th and 6th, Mr. McPherson Hill made an oral report, in which he estimated the average loss in Sonoma county at 30 per cent. In some parts of the valley the loss is slight. Mr. Hill had sustained no loss worthy of mention—not one hundred pounds in his whole vineyard. Some of his neighbors were almost as fortunate. Near Sonoma City there was much damage, perhaps 50 per cent. About Santa Rosa and Healdsburg, also, the vines suffered considerahly. He would average the entire loss through the county, therefore, at 30 per cent.

Major Snyder thought Mr. Hill's calculations under-estimated. The damage, he thought, was greater—50 per cent. was nearer the mark.

Mr. A. F. Harazthy placed the injury at 50 per cent. in his district.

Mr. Gunlach thought Buena Vista may make half a crop.

Mr. Kitz coincides in this estimate.

Mr. Edwards hopes for three-fourths of a crop. He was benefitted by late pruning.

Mr. Craig thought that the period of pruning would materially influence the result.

The final conclusion among Sonoma members was that the loss would not vary very much from 50 per cent.

Dr. Crane, of Napa, does not know of a vineyard in his county that would produce anything like half a crop. His own vineyard may be taken as a type. He may make eight to ten thousand gallons instead of thirty-five to forty, as he had expected. He has heen among vineyards elsewhere in the State, and found they had snffered in other counties as badly. He helieves the crop of 1873 in California will not be more than 25 per cent. what it would have been without the frost. He thinks the Riesling and Ziufindel have resisted hetter than other varieties.

Mr. Wrattan agreed with Dr. C. in regard to Ricslings.

The President stated that the Association would now take up the unfinished husiness of the last meeting, being the motion of Mr. Arpad Harazthy to refuse our endorsement to the petition submitted hy the manufacturers of imitation Champagnes for the removal of the Revenue Tax. He then presented a communication on the subject from Mr. Adam Kitz of Buena Vista.

Mr. Kitz's paper began with a history of champagne making in Germany. It was first inaugurated, according to the French mode of manufacture in 1826, by Kepler of Esslingen, Wirtenburg, who was subsequently distinguished for important railroad improvements. He was followed, from time to time hy others on the Rhone, so that to-day Germany has over 70 champagne factories, working with a capital of over 1,000,000 Florins, and which furnish even the French market with their sparkling wines.

Owing to the growth of this new industry, and increased consumption of its products, the cheaper Rhenish wines have arisen within ten years to five times their former value, and at present, even under the most favorable vintages, these wines maintain, contrary to all expectations, their enhanced prices. So active has the demand become for these light wines, that the larger champagne factories huild press houses, aud other accommodations in those parts of the country where vineyars abound.

This success has been attained notwitbstanding the prejudice against all champagnes, not French, who alone are fallaciously supposed to make their wines by fermentation in bottles. Wine dealers have contributed in a measure to this popular errouous impression by ordering sparkling wines sent to them under the protection of some favorite French brand.

Mr. K. here refers to the origin of the fabrication of champagne, its prices, and a history of the negotiations in Europe to secure a mutual protection of *Trade Marks*, which was brought to a successful issne by the policy of Bismark and assumed the name of the Franco-German treaty of commerce.

This event caused a transitory calm to settle on the flourishing industry, but, after the course of two years, the business surmounted all obstacles and reached extraordinary proportions, hreaking its way as it gained in importance, not only in Germany, but in other European States, in Asia, Africa, America and Australia—found everywhere a good market and is at present in its full bloom.

As a further evidence, the price of the German sparkling wines have risen one-third since the month of December, 1872, although the southern part of France yielded a good average vintage, hoth as to quality and quantity.

Mr. Kitz next glanced at the present state of California vine cultivation, and expressed as his opinion that although apparently differing, it presents the type of the German grape-growers, and champagne makers of earlier times. By general good management and the introduction of foreign varieties of wines, in many cases an excellent wine is produced, but unfortunately, the high rates of interest cansed tbe sale of new wines to Eastern wine merchants, who sold the hest for Rhine wines, and even have the audacity to assert that they never buy California wines.

He considered it unfortunate that greater interest was not manifested by our vineyardists in the Vienna Exhibition, as being the most proper and efficacious means to gain the reputation which our wines deserve, through the judgment of unbribed, and unrecognized authorities.

Again referring to the present prosperity of the German champagne manufacturers, Mr. K. contended that snch prosperity was due to their strict adherence to the process of making their wines by the French method, although it reqnired such heavy outlays, he believed the same snccess would attend the industry in California, hnt it should not be exposed to a loss of reputation by wines of a similar appearance, and inferior quality, as they would he of wines prepared by the carhonic acid process now circulated nnstamped.

Mr. K. did not think any injustice was done to makers of artificial champagne by reqniring them to proclaim the true nature of their wares, while it is an injustice to the manufactnrers of legitimate champagne to have the public misled, to the prejudice of all American champagnes, and the sacrifice of their special interests.

Mr. Kitz then presented to the Association, liberal samples of a truly delicious champagne, which he designated a prodnct carefully prepared ont of pure California wine, raised in Sonoma Valley.

Mr. Arpad Harazthy moved that the communication of Mr. Kitz be spread upon the minutes, which was ordered. Mr. Harazthy remarked that the subject of artificial champagne-making was discussed at the last meeting, when he took grounds against the arguments of those who advocated the cause of the artificial champagne-makers. It was not to the interest of grape-growers to encorage these mannfacturers. It was an industry which, from its very nature, could never become an important one, for the reason that their products are perishahle and must be consnmed at home.

These imitation champagnes would not stand a sea-voyage, whereas those made at the Buena Vista, by Landsberger & Co., and hy other legitimate manufacturers, can be sent abroad, and meet a good demand. Mere imitation champagnes were calculated to ruin the reputation of all California champagnes made by the natural method, and thns stay the progress of their substitution for the foreign article. That California champagnes are likely to supplant those of Europe, if no obstacles are thrown in the way, is no idle dream, as shown by the fact that French champagnes have declined in consumption from 12 to 14,000 cases annually in six years, while California champagnes have increased in a greater ratio.

The quantity of wine taken from viniculturists by the champagne-makers was large, and no other is used than good wine, whereas the imitation champagnes are inferior wines. Mr. Douglas, the Commissioner of Internal Revenue, had decided that champagnes made by injecting carhonic acid into American wines, was suhject to the stamp tax of twenty cents on the quart bottle. The tax being resisted, tbe matter was referred to Judge Blatchford, of New York, who had given judgment against the Commissioner, and an appeal had been made to the Supreme Court, where the subject now rests.

Mr. Wohler considered artificial wines essentially bad, and that they should not be sustained.

Dr. Lockwood did not regard the inferior quality of wines an adeqnate reason for their individual taxation, any more than in the case of shoddy cloth or stupid sermons. The principle was wrong, and was indefensible except on the score of public health, which was not put forth.

Mr. Goss did not consider the subject as helonging to this Association. If the tax was for revenue, well and good; if for protection, he did not know it. He moved as an amendment to Mr. Harazthy's motiou its indefinite postponement.

Major Snyder thought we ought to show our hands and vote for one party or another.

The question being taken, Mr. Goss' amendment was rejected, and the motion of Mr. Harazthy adopted.

The Association then adjourned, to meet in Napa City, on Saturday, July 9th, 1873.—*Napa Register.*

Agricultural Notes.

ALAMEDA.

Encinal, June 21: Mammoth Onions.—In evidence that the soil of Alameda is of superior quality, we mention the fact that Mr. D. Brown, whose property is located on Buena Vista avenue, left at our office yesterday a bunch of seven onions, which weighed just six pounds. They were raised without the least irrigation; and Mr. B. has a half acre of them, of similar average size.

COLUSA.

Sun, June 21: The Crop—Last Year and This.—We have heretofore been careful not to under-estimate the present crop, for the reason that shipping will be directed to this Coast in proportion to the supposed yield, and it is to our interest to have as many ships seeking freights as possible. But it strikes us that there is a systematic putting up of the present crop, and at the same time a lowering of the last year's yield by the daily papers, nearly all of which are in the interest of one or other of the "rings."

This, just as the farmers are obliged to sell, looks as though the impression was being created that we had as much wheat as last year, for the purpose of inducing the farmers to sell. The estimated yield of this year foots up 11,184,000 centals, as against 12,701,000 centals last year. In this estimate Colusa county is 600,000 bushels last year, and her estimate 517,000 this year. The first estimate is not high enough by nearly half, and the latter is somewhat too high.

We will have in the neighborhood of half a million centals, but we would rather guess under than over. Last year the Colusa County Bank paid out for wheat $1,115,000, and it did not pay for more than two-thirds of the wheat of the county. The average price paid was something less than $1.50 per cental, which would give us well on to 1,200,000 centals, or just double the figures given us.

Our crop this year is not half a full yield, and from all we can learn our yield is as good as any, except a few of the bay counties and some spots near the foot of the Sierra Nevadas. If ships enough come to carry off the crop of last year, freights will be cheap, and the farmers get a good price for their grain, but we fear that these figures are being given not so much to induce shipping to come as to induce farmers to sell at the price offered.

When they get Granges organized all over the State, they can soon *know* the amount of grain in the State at a given time, and they can know how many ships are coming after it.

A California Ranch.—Dr. Glenn, of Colusa county, owns a ranch which contains nearly 45,000 acres. It embraces a frontage of eighteen miles on the Sacramento river and extends back about five miles. It is inclosed and divided by one hundred and forty miles of fencing. One tenant, G. W. Hoog, rents and cultivates about 10,000 acres of land, and the Gupton Brothers cultivate an equal portion. Some 15,000 acres are rented out to a number of farmers who work on a smaller scale.

At the present time farming operations are going on on this ranch at a lively rate, as the work of harvesting is progressing rapidly. Hoog is engaged in cutting seven thousand acres of wheat and barley. The crop will this year yield about twenty bushels per acre of wheat. In favorable seasons the yield has been thirty-five bushels. The yield of barley is considerably larger. The total crop will amount to nearly 180,000 bushels. He is threshing his grain with one of Case's 48-inch cylinder threshing machines, which is run by a twenty-horse power steam engine.

To supply this machine requires six large-sized headers and eighteen header wagons, all of which require the labor of one hundred and ten horses and fifty men. The machine has threshed five sacks of barley per minute, at which rate it has run for an hour and a half in succession. It has also threshed thirty-two sacks of wheat in seven minutes. It will require about six weeks to thresh the entire crop. These are the operations of Hoog alone. Gupton Brothers have an equally large crop, and are driving business on about the same scale. The smaller tenants are equally well employed.—*Sac. Union.*

CONTRA COSTA.

Gazette, June 21: The Harvest.—Those of our farmers who have barley crops, are now engaged in, or have completed cutting them. The wheat is maturing slowly and but little of it will be ready before another week, and some of it not for three weeks yet, unless there should be a turn of hot weather to hurry them up.

Hambletonian Stock.—At Whipple's sale last week, which is universally spoken of not only as comprising the most magnificent lot of horses ever seen together on this coast, but, as having been governed by most honorable dealing throughout. Supervisor Tormey, of Pinole, was the purchaser of a brown two-year-old colt, by "Hambletonian, Jr.," dam "Lady Sofley," for $250; and also of a bay yearling, by same sire; dam "Revere," for $560. Mr. Tormey also paid at the sale $195 for one of the thoroughbred yearling bulls.

FRESNO.

Expositor June 18: All the various irrigating ditches diverging from King's River are now running to their fullest capacity.

Grasshoppers are very abundant between King's river and Big Dry Creek. The whole face of the earth seems alive with them. They are making sad havoc with the cotton, and everything green. We learn that they destroyed twelve acres of cotton for Mr. Wm. Hudgings, and that gentleman says they are so ravenous they swallow a full grain of wheat. The cotton crop of Messrs. Weihe & Co., is also being attacked.

Harvesting is progressing favorably throughout the county and is now in full blast. There will be vastly more grain raised this year than last. But what is to be done with it? The railroad tariff, farmers inform us, is $140 per car, except in cases of special contract, when the price is reduced to $70 per car. If this is the case it will preclude the shipping of any grain from this county this season. The lowest rates given are sufficiently high to render the shipment of wheat unprofitable.

We visited, a few days since, the cotton field of Masters Burris and Dixon Philips, in the King's river bottom, near Centerville. They have in about 35 acres, and it now averages about ten inches in hight. It looks quite thrifty and promising, and the "squares" are already beginning to appear. The soil is moist, and irrigation will not be required at least for some time. They commenced planting their seed on the 6th of April. The young gentlemen engaged in this enterprise are aged respectively, 14 and 16 years of age. They are lately from Mississippi, and have had some experience in cotton culture there. They are deserving of success, and it is to be hoped they may be liberally rewarded by an abundant crop of the white staple.

Over Run.—Mr. N. F. Salter, who is just from the mountains, near Humphrey & Mock's mills, or rather above and farther into the mountains, informs us that there are so many sheep in that region that at this early day there is scarcely feed enough to keep them alive. If there were no sheep in this county but what legitimately belonged here, there would be feed enough, but sheep-men from adjoining counties, who own not a foot of land nor pay a dollar's tax in Fresno, drive their sheep on our ranges and eat us out. They stay in their own county until they are assessed, or get on the boundary line and move back and forth from county to county, until the Assessor has passed, then here they come by the thousand. We consider this no better than robbery.

MONTEREY.

Democrat, June 21: The crops of this valley are in fine condition. Farmers tell us the weather which has been prevailing of late has been just what was to be desired for grain at its present stage. They say that the warmth and absence of fog during ripening of crops will cause the yield to be much better in quality than usual in this quarter. In effect, using their language, they look for the harvest that will, for brightness of the grain, compare with the production of the San Joaquin Valley.

Alisal.—From this quarter we have especially favorable reports. The farmers say their crops will be better, in quality and quantity, than in any previous season.

PLACER.

Herald, June 21: Migrating.—Large and numerous herds of cattle and sheep have been passing through here on their way to the mountains for summer range, for the past three weeks. Hardly a day has passed in that time, that one or more herds have not passed up High street, heading for the numerous valleys in the Sierras. If other routes are thronged with these droves, as this one through Auburn is, the wonder is, where all the grass grows that is to feed them the remainder of the summer.

They Grow Fast.—We have had occasion to make another visit to Mr. Bernhard's, and were astonished to note the rapid growth of his silkworms. In one week they have doubled their growth, and continue to do well. Mr. B. becomes daily more enthusiastic on the subject of silk culture, and declares that if these do as well as present prospects indicate, he shall sell his vineyard and make this business a specialty, as the work required is not so laborious.

SANTA BARBARA.

Press, June 14: Fine Wheat.—Mr. W. E. Foster has several acres of fine wheat, large, full heads, stalks of sample left at our office four feet and a half high and free from rust. Mr. Foster's place is in the lower part of the Montecito Valley, and about three miles from town.

Times, June 14: Crops in La Patera.—It is well worth while to take a drive from Santa Barbara to Dos Pueblos, in spite of the dreadful road, in order to see how productive this beautiful valley is, even in what are termed dry seasons. The hay-balers are now busily at work, and have as much as they can manage, judging from the mown hay we see piled up in the fields. The barley, though not as thick as in better years, looks well and promises a fair yield. The corn appears excellent along the entire line of the road. But the most beautiful sight one can witness, and one pleasing and suggestive to the farmer's eye, is obtained by turning from the road beyond the old Hill mansion and entering the charming place of Mr. W. W. Stow. It is a fine field of ripening wheat (about 60 acres, we should judge), thick and clean, the heads well filled out.

We cannot help remarking here that Mr. Stow has chosen for his homestead one of the most beautiful spots in Santa Barbara. His house, standing upon an isolated mound, commands magnificent views of the ocean and the islands rising from its bosom, and the valley up and down the coast. A prominent feature in the landscape is the old Mission with its stately towers.

This place has been already handsomely improved by Mr. Stow, who has planted numbers of ornamental and fruit trees and vines, erected buildings, and is about bringing the water from the mountains for purposes of irrigation. He has been fortunate in escaping the devastating raids of the grasshoppers this year.

SANTA CLARA.

Gilroy *Advocate*, June 21: Harvesting.—The reapers are now in the field, and the golden grain is falling a victim to their remorsless maw. In this immediate vacinity but little grain has been cut, though the bay harvest is about over. Around Hollister, we understand, harvesting has commenced in earnest, and the yield promises to exceed all expectations. So in this valley. The farmers tell us they will be agreeably disappointed in the yield, average crops are assured everywhere, and in many favored localities there will be far above the average. In some places the grain is not as thick as usual, but the beads are better developed, and the product will be measurably increased. With the prospect of obtaining good prices for their crops, the farmers are in excellent spirits,

Mercury, June 20: A Wonderful Plant.—On the premises of Mr Joseph Lee, between twelfth and thirteenth streets, may be seen a young century plant of six months growth, which has developed itself into a most remarkable phenomenon. The plant stands about five inches high, and is of itself a curiosity because of its diminutive proportions.

About three weeks ago the family noticed the germination of a small sprout on the plant, which has since grown with such remarkable rapidity that it now presents a stalk nearly three feet in hight. This stalk is sending forth numerous buds, and from all appearances the plant will be in full bloom within the course of a few weeks.

A reporter of the *Mercury* visited the grounds yesterday, and he unhesitatingly pronounces the plant a most extraordinary development of germination, such is also the opinion of a number of the leading horticulturists of the State who have seen this plant. It is a popular delusion that century plants bloom only once in every one hundred years, but modern investigations show that under favorable conditions they will blossom in about twelve years' growth.

Here is a plant that blossoms the first year of its growth. This fact renders the peculiarity of the growth of this plant all the more attractive, and adds much interest to its history. It is the development of one of the mysteries of nature which seem to be unexplainable, and we leave the subject for the consideration of others. The family have appropriately christened the plant Gen. Tom Thumb.

The large century plant which stands but a few feet distant, stands thirty-two feet high, and has a large number of branches, ranging from eight inches to three feet in length. These branches contain upwards of one thousand beautiful buds. Since the commencement of its growth, over 1,600 persons have registered themselves as visitors to see the plant. Last sunday 140 persons registered, and equally as many more visited the grounds who did not enter the inclosure at all.

SHASTA.

Sentinel, June 21: Yields Well.—Mrs. P. B. Reading, of Shasta county, was in town this week, from whom we learn that that portion of grain on the Reading grant which was put in properly, although late, will yield from 30 to 40 bushels to the acre. Mr. Ludwig, of Cottonwood, who is tilling a portion of Mrs. Reading's farm, will realize even greater than the figures named above. Mrs. Reading did not sow any grain this season, depending entirely upon volunteer, all of which she is cutting for hay, realizing an abundant yield of the best quality. The Reading grant never fails to produce a fair yield.

SISKIYOU.

Yreka *Union*, June 21: Crops in Shasta Valley.—Our information is to the effect that grain crops in Shasta Valley will be above an average the present season.

Hay Crop.—Reports represent that the hay crop will be light the present season. It is said this will be particularly the case in Scott Valley. The weather has been too cold for grass to grow well.

Storm.—Monday and Tuesday last the weather here had a decidedly storm-like appearance. But little rain, however, fell. In Scott Valley, however, there was a fine rain which will do much good to the crops. The cold weather some two or three weeks since had damaged the growing grain seriously; in fact to such an extent that without further rain the prospect for crops was rather slim. The showers of this week have greatly improved the prospect.

SAN LUIS OBISPO.

Tribune, June 21: Weather.—It has been hot all the week, and the grain is maturing fast. The cutting of wheat and barley has already commenced and the harvest goes merrily on.

SONOMA.

Democrat, June 21: Good Crops.—On Saturday last we visited a number of farms in the vicinity of Santa Rosa. From personal inspection we are satisfied that the yield of wheat in this vicinity will be fully up to the average. On Mr. C. P. Teague's place there is a stand of wheat which will yield forty bushels to the acre. It is upon black "adobe" soil cultivated last year in corn. This plat, formerly too wet, was made available for culture by a surface drain cut through it longitudinally. It proves as all the "adobe" land will prove, when thoroughly drained, highly productive. Mr. Teague after this will abandon the forcing process. He will practice a judicious rotation or entire rest of a portion of his land on alternate years. By this course he will save one-half of the expense of seeding and harvesting, and increase one-third, if he does not double the product of the portion cultivated.

Argus, June 20: Hog Disease.—We are informed by several of our farmers that there is at present a disease raging among the hogs which proves very fatal. Jasen Yengling, of Two Rock Valley, lost four hogs this morning out of a band of twenty-five, and Capt. Watson, of Marin county, has also lost several. The disease seems to resemble the epizooty in the horse, the hogs being attacked with a severe cough. We hope the swine of the county may escape as well from the disease as the horses did.

SUTTER.

Banner, June 21: Steam Plow.—Middleton, who owns a large tract of swamp land in Levee District No. 5 in this county, has a force of men and a steam plow at work upon it, preparing it for a crop. The tules, which are not as high as common this year, are first cut down with a mower, and then the steam arrangement, (which is not exactly a plow, but a series of knives or something of the kind, which merely cut up the ground, but does not turn it over) follows. The steamer was brought up last week, but was run into a stump while on the way from the river and disabled. Should these lands be reclaimed, they will add much to the productiveness and wealth of the county.

TULARE.

Times, June 21: Singular Cattle Disease.—We have just been informed by a gentleman from the Buzzard roost that the cattle in that section of country are dying off, from an epidemic which seems new to this part of the State. The first symptoms are a swelling in the brisket and on being driven they fall dead. The most peculiar part of the disease is that a few minutes after death the hide and horns become loose, and in many cases even before death takes place. Some of the stock which are still suffering present a pitiful appearance, being very much bruised and with only one horn, and others without any at all.

Delta, June 19: Capabilities of the Soil.—We were shown on Monday last a small patch of wheat, near this town, on ground of ordinary quality, and perfectly dry, which was just ready to cut. The grain was fine and uniform, and at least three-fourths of a crop. We learned from the owner that it was seeded down in January, had seen but one rain, and that before it was up. He says he sowed thick upon the hard ground, and plowed it five or six inches under. It came up strong, thickset, and grew without any sign of embarrassment through the drouth to its present condition. This serves to illustrate that our farming need only to be understood and thoroughly done, to insure good crops in the driest season.

YOLO.

Democrat, June 20: Fine Crop.—Mr. Wm. Campbell, of Buckeye, has harvested a field of four hundred acres of wheat which yielded forty-three bushels to the acre. He sold one hundred tons to Dresbach & Co., of Davisville, at $1.63 per cental. This is of course far better than the average; but we have no doubt, from all the information attainable, that there will be fully half as much wheat marketed in this county as last year.

Poor Crop.—We are informed that Edward Dyer, of Gordon Valley, was considerably disappointed in his wheat crop. He expected 12 or 15 bushels to the acre, but after his field of 56 acres was harvested the total yield was only 73 sacks—less than three bushels to the acre.

YUBA.

Appeal, June 22: Fine Crop.—Charles F. Reed is now engaged in harvesting his reclaimed tule wheat land in Yolo county, and finds that it turns out splendidly. It is expected to yield at least fifty bushels to the acre; and Reed has eight hundred acres of it.

Farmers' Picnic.—The farmers of Sutter county are beginning to talk about their annual picnic. Every year, after the crops are gathered and the heavy labor incident thereto is over, the well-to-do and social farmers of Sutter gather together in some inviting grove, and participate in a countryman's social. Feeling themselves entitled to an extra holiday, they appoint the time and take it. They vote themselves, like independent farmers, young and nimble again, and assemble together as neighbors and "smoke the pipe of peace"—and may be, take a mug of lager beer. The time for this year's picnic has not yet been fixed, but it will come off in the course of three weeks, on Butte slough. Everybody is invited.

NEVADA.

Transcript, June 17: Angora Goats.—Yesterday morning a band of about one thousand graded and thoroughbred Angora goats passed through this city on the way to the ridge between the South and Middle Yuba rivers, for grazing. Among the lot are thirty thoroughbred bucks and twenty-four does, imported by Sheridau & Thomas, of Auburn, Placer county, last season, who are owners of the flock. The raising of Angora goats has been thoroughly tested in this county by Mr. Stiles, who has now a large flock grazing beyond the Banner mine. A very large number of kids of

(Continued on Page 412.)

Frazer River Idols.

All tribes of Indians have their peculiar customs with reference to disposing of their dead. Some bury them, some burn them, some smoke them, and others place them in hammocks raised from the ground. But whatever disposition is made of the bodies, the location of the remains is, as with civilized nations, more or less consecrated ground. The accompanying engraving shows one of the cemeteries of the Frazer River Indians. It is from a sketch made by Geo. H. Burgess, who visited that country during the "Frazer River excitement" in 1858. A few places of this character are found in that region, but this particular one possesses the same general characteristics as the others, and is moreover somewhat more extensive.

The spot is above the town of Fort Yalo on the Frazer River in British Columbia, at the foot of a tremendous precipice about 2,000 feet high. The situation is a most romantic one, just below the entrance to "the Cañons" on the river, where the scenery is described as grand in the extreme. The square boxes in the back ground contain the remains of defunct Indians, piled one upon the other, and enclosed by a rude shed for protection from the weather. The dead Indians are placed in these painted boxes with their clothes, blankets, etc., and about the boxes containing the remains are hung the personal effects and utensils of the deceased. On the top of the shed on the left will be noticed an old broken canoe, the property of some departed aborigine. The figures of animals which are carved in bass-relief, represent bears, otters and beavers. The central figures are an Indian and squaw, the man wearing a mask such as the Indians use on some of their festive occasions. The figure kneeling down is carved out of a solid piece of wood, and the gun in its hand has an iron barrel, taken from an old musket. This figure bears evidence of being made at some recent date after the advent of white people to the river, since it is represented as wearing a *bona-fide* beaver hat. The figure half seen behind the large idol on the left, is ornamented in the same manner.

All these figures are carved from wood and painted in a rude way. The Indians worship them after their manner and occasionally wandering parties come to the locality, place themselves in front of the idols and weep and wail after the fashion of California Indians at a burial. They respect the idols very much, and protect them from damage as much as possible. On one occasion a white man mutilated one of the images by firing a rifle ball into it, and an Indian who witnessed him followed and dogged his footsteps for some days, until he found an opportunity to kill him, which he did. The Indians who travel near these places will go out of their way to visit them on all occasions. The carving is, as will be seen by the engraving, done in a rude manner and with imperfect tools. All the idols are painted in bright colors after Indian fashion. What the Indians suppose them to represent we have no idea. The different idols may be commemorative of some famous Indian, skilled in the arts of war or the chase, or they may be placed there as imaginary guardians of the dead to protect the remains of those who have gone to the "Happy Hunting Grounds." At all events the images are held in great respect by the Indians who inhabit that part of the country.



BURIAL PLACE AND IDOLS OF THE FRAZER RIVER INDIANS.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co's Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

Improved Refiner for Distilling Purposes. The preparation of alcohol, or any fermented spirituous liquor, is divided into three distinct stages or operations—fermentation, distillation and rectification. The latter is found the most difficult and at the same time it is the most essential to a good article. Indeed, so difficult is the process of rectification that many distillers do not perfect their products, but pass them over to the rectifying distiller, whose business it is to remove from them any contaminations which are disagreeable or injurious. Even where the producer conducts his operations to their final result, the rectification process is usually done apart and in a distinct portion of the premises.

The object of the invention, herewith presented, is to place within the reach of the distiller, at a reasonable cost, a simple and effective device by which the process of refining may be more readily performed, and by the distiller himself, and used, if desired, directly in connection with the still.

This device consists mainly in a novel construction of an elongated vessel, having diaphragms placed across it at intervals, which diaphragms are perforated, alternately at top and bottom, for the passage of the vapors. Each compartment thus formed has a pipe leading out of it into a corresponding compartment in another vessel placed below the one first described. The compartments in the second vessel are so arranged that whatever oils, fluids, etc., may be condensed in the several compartments of the vessel above, pass out thence, through the pipe above mentioned, into a corresponding compartment in this lower vessel, and from which they may be drawn off at leisure, or passed automatically again to the still for redistillation, and further elimination of any spiritnous liquor which may have been deposited in the first instance with the contaminations.

These vessels and their compartments may be constructed of any number and size, by which means the vapors of the still may be made to pass any distance, with, of course, decreasing temperature under which the various oils and other impurities which pass out of the still, may be condensed as they meet the various temperatures required for such condensation, until nothing but the pure spiritnous vapor is left to be deposited in the vessel designed for its reception. The proper temperature is kept up by a water or steam jacket which surrounds the first described vessel.

We have examined samples of spirits which have been refined by this apparatus; the change in the character of the liquors thus produced is really surprising, and such as to commend the device as a most important improvement in the art to which it is applied. We understand that the inventor, Mr. William Neil, of No. 311 Mission street, in this city, has just received a patent for this invention through the Mining and Scientific Press Patent Agency, and has also made application for foreign patents for the same.

Accouchment Couch.—E. L. Moore, San Francisco, Cal. Too little attention has heretofore been given to improving the appliances which are requisite for alleviating the suffering of women during the accouchment period. We are too prone to think that nature and the physician will take care of such things without especial aid. This patent is for a couch which is intended especially for this purpose, being provided with all of the conveniences and appliances which have been found to be necessary during the confinement. It will undoubtedly prevent much suffering and possibly save many lives.

A New Pocket Fastening.—Mr. J. W. Davis, formerly of Reno, Nevada, but now residing in this city has just received through the Scientific Press Patent Agency, letters patent for an improvement in fastening the seams of pockets. The improvement consists in the employment of a metal rivet or eyelet for fastening the seams. Simple as this device seems nevertheless it is quite effective, and we do not doubt that his manufacture, of overalls especially, will become quite popular amongst our working men, as the overalls are made and cut in the style of the best custom made pants. Nothing looks more slouchy in a workman than to see his pockets ripped open and hanging down, and no other part of the clothing is so apt to be torn and ripped as the pockets. Besides its slouchy appearance, it is inconvenient and often results in the person losing things from his pockets. Levi Strauss & Co., of this city are sole agents for the new manufacture, and will soon place them in the market in large quantities, so that our miners, farmers and workingmen can supply themselves with superior overalls.

Ore Feeder for Quartz Mills.—T. A. Cochrane, Jamestown, Cal. This invention relates to an improvement in the ore-feeders which are operated automatically from the tappet by the drop of the stamp, to feed the ore beneath the stamp in quartz mills. The improvement consists in the employment of an endless belt operated by a ratchet and spring-pawl, the pawl being long enough to extend up to, and receive a stroke from the tappet at each descent of the stamp stem. This operation causes the endless belt to travel towards the battery. The ore is placed in a hopper over the belt so that it will fall upon the belt and be delivered into the battery as the belt travels.

Heretofore it was found impracticable to feed wet ore by the self-feeders in use, but by this device wet ore is fed as evenly and regularly as dry ore.

Old Tuolumne.

The annual reunion of the Tuolumne Reunion Association, composed of residents and exresidents of Tuolumne county, was held in Brooklyn, Alameda county, on the 17th inst. As usual, the picnic passed off pleasantly to all concerned. These annual gatherings of old friends and acquaintances are much enjoyed by the participants, and they propose to keep them up indefinitely. A great register is kept of all the old residents of the county, in which are as many original signatures as can be obtained. Placer county is the only other one that has as yet followed the example of Tuolumne in this matter, two "Placer Reunions" having been held. It is pleasant to see men who have "roughed it" together in early days join together with those who have come in later years to keep up old associations and remembrances in an annual reunion. We give below the officers elected by the Association for the ensuing year:

President, L. P. McCarty (of the Mining and Scientific Press), San Francisco. Vice-President, C. B. Rutherford, Oakland. Secretary, Thornton Westley, San Francisco. Treasurer, W. G. Dinemore, Oakland.

Executive Committee, James L. Homer, H. M. Rosekrans, L. Jacobi, Hon. Stephen Wing, all of San Francisco.

Committee at Large (San Francisco), John Sedgwick, J. H. Scammon, Alden Kingman, O. Becker, P. R. Woodman, Wm. H. Culver, A. Sharp, John S. Cannon.

Oakland — E. G. Jones, Samuel Boynton, P. Emon.

Stockton — J. B. Douglass, R. C. Patten, Le Rose Phelps, Hon. Geo. S. Evans, Colonel Wm. Shine.

Vicalia—James Spear.
Vallejo—Hon. Paul K. Hubbs.
San Jose, Nep. Soderer, Walter Hollenbeck.
Salinas City—Henry Harter, George A. Tolman.
Columbia—Hon. P. B. Bacon.
Sonora—D. M. Kenfield, J. B. Bacon.
Martinez—W. H. Ford.
Antioch—Wm. Stewart.
San Diego—Joseph A. Smith.
Marysville—F. W. A. Aaron.
Petaluma—B. Harter.
Carson, Nevada—D. C. Turner.
Virginia City, Nevada—Joseph Smith.
San Luis Obispo—Walter Murray.
Lone Pine—Tim Lewis.
Hamilton Nevada—Dan. Patterson.
San Andreas—Hon. Wm. T. Lewis.
Helena—Wm. A. Cheeseman.
Los Angeles—B. F. Ryder.
Santa Cruz—Judge Wellington.
Eureka—John H. Fordham.
Confidence Mine, Tuolumne County—L. Gibson.
Gold Springs J. B. Robbins
Big Oak Flat—Wm. Urich.
Chinese Camp—M. Bacon, Judge Cullimridge.
Napa—John F. Zollner.
Montezuma—D. J. Edgar.
Mound Springs—W. J. Flack.
Pioche—Barney Mullen.
Jacksonville—Dan. Munn.
Silver City—Mike Maxwell.

Useful Information.

Blacksmiths and Machinists.

Every one had an opportunity to employ different kinds of workmen to assist him in the construction of novel machinery, will agree with us that he always had the least trouble with the blacksmiths. As a class of workmen they generally possess the best judgment, and will not misunderstand the directions given which is so often the case with other workmen, and they have the special faculties of possessing a good eye for symmetry of form. They will judge by the eye alone, quite correctly, if an angle is right, a circle round, etc. This latter faculty is a result of their training. While the carpenter lays his square on the work, and marks it off beforehand, the blacksmith more ordinarily makes his right angles by sight, and can only resort to the square to see if he was correct.

In regard to utility for social progress, the busines of the blacksmith also stands foremost. What would the most useful of all producers, the farmer be, even in his most primitive state, without the blacksmith. It has been noticed that at the present day few young men care to learn that trade; the cause is that it requires so much hard, muscular labor. Thousands prefer, therefore, to become machinists, and then they have all sorts of mechanical tools to shape their work, without the hard labor with nimble hammer and sledge, and also that as machinists they can, in this thriving country, find always more ready employment than in the blacksmith's trade.

In fact, the occupation of machinists is at the present day the foundation of almost all other trades, as we owe to it the invention of many tools which facilitate labor of all kinds. Without the appliances invented by the mechanics of the present day, we should indeed have no steamboats, railroads or steam power; the ingenuity of inventors, in attempting to supply the present race of men, has in fact, created the machinist's trade; and this by inventing the forge hammer driven by steam, and other similar inventions, which have succeded in shaping masses which no sledge hammer could manage. It was thus demonstrated what bold conception could practically be realized, and this in turn stimulated inventors and capitalists to expand their ideas, and go on in conceiving and supporting the most gigantic projects, which our forefathers would have considered impossible of execution, but which our mechanical engineers have practically realized, and in persisting to do so, continually surpass their own former efforts.

Also in small, but not less useful matters, the inventive genius of the machinist is eminently active at the present day, not only in regard to the saving of labor and time, but also in saving expenses for divers pieces of machinery, by contriving a machine to do the work of two or more distinct ones.—*Bulletin.*

Proposed Brilliant Illumination.—A Mr. P. A. Vickers proposes to the people of Oregon to illuminate the top of Mount Hood on the night of the Fourth of July, in such a manner that the light will be witnessed by thousands in that State, as well as in Washington Territory. For this magnificent display he asks only a slight remuneration, "to be paid upon the accomplishment of his grand design." A writer in the Portland *Bulletin* recommends Mr. Vickers and Scheme. "If he fail," says the correspondent, nothing will be lost to the community. If he succeeds, Oregon or rather, Portland, will have been instrumental in making the most signal and gigantic pyrotechnic display the world has, perhaps, ever seen on such an occasion; and the investment by the committee will never be regretted. The conditions are certainly moderate, and Mr. Vickers will probably be told to go ahead with his grand illumination.

Tale of the White and Black.—A correspondent of the *Country Gentleman* says: Every spotted dog has the end of his tail white, and every spotted cat the end of the tail black. Of the fact there can be no doubt. I have examined dogs and cats without number in France, in England, and America, and always noticed the same result. The dog affair is not original with me, but the cat is. Our former minister to Japan, Mr. Harris, first mentioned the fact concerning the dog in a letter to the New York *Times*, published some years since. I have looked at many paintings of dogs in the galleries of Paris, and elsewhere, in regard to this, and found even there the dogs spotted, always "in order," proving to me that the artists had invariably copied after nature.

The Ink of the Ancients.—In a letter from Mr. Joseph Ellis, of Brighton, addressed to the *Society of Arts Journal*, he states that by making a solution of shellac with borax in water, and adding a suitable proportion of puro lamp black, an ink is produced which is indestructible by time or chemical agents, and which, on drying, will present a polished surface, as with the ink found on Egyptian papyri. He made ink in the way described, and proved, if not its identity with that of ancient Egypt, yet the correctness of the formula, which was given him by the late Mr. Charles Hackett, F. R. S.

Durability of Cypress Wood.—It is said that the ancient gates of Constantinople, which endured the attacks of decay for more than 1100 years, were made of cypress wood.

Why it is Called Rosewood.—Did any of our readers ever wonder why the dark wood so highly valued for furniture should be called rosewood? Its color certainly does not look much like that of a rose, so we must look for some other reason. We are told that when the tree is first cut, the fresh wood possesses a very strong rose-like fragrance, hence the name. There are half a dozen or more distinct kinds of rosewood-tree. The varieties are found in South America and in the East Indies and neighboring islands. Sometimes the trees grow so large that planks four feet broad and ten in length can be cut from one of them. These broad planks are principally used to make the tops of piano-fortes. When growing in the forest, the rosewood-tree is remarkable for its beauty, but such is its value in manufactures as an ornamental wood that some of the forests where it once grew abundantly, have now scarcely a single specimen. In Madras, the government has prudently had great plantations of this tree set out in order to keep up the supply.

How the Diamond Cuts Glass.—Dr. Wallaston ascertained that the parts of the glass to which the diamend is applied are forced asunder, as by a wedge, to a most minute distance, without being removed; so that a superficial continuous crack is made from one end of the intended cut to the other. After this, any small force applied to one extremity is sufficient to extend this crack through all the whole substance and across the glass; for since the strain at each instant in the progress of the crack is confined nearly to a mathematical point at the bottom of the fissure, the effort necessary for carrying it through is proportionally small. Dr. Wallaston found by trial that the cut caused by the mere passage of the diamond need not penetrate so much as the two-hundredth part of an inch. He found also that other mineral bodies, recently ground into the same form, are capable of cutting glass; but they can not long retain that power, from want of the requisite hardness.

Good Health.

Good Nature Can be Cultivated.

Good nature is a sign of health and sweetness, and is cultivated by cultivating these conditions, especially the first. When digestion is good, the blood is abundant and rich and all the organs of the body and mind are well fed, when if the sleep is abundant, and cares not too many, good nature comes of itself.

It is a favorite notion among the scientists that the coal we dig from the mines, with which to warm our houses and drive our machinery is but the sunshine of former ages, stored up for future use; and the comparison is very apt. And so we may say that a good-natured, jolly, wholesome man consists mainly in an unusual amount of sunshine turned into light and life.

Mr. Beecher in one of his pointed *Ledger* letters says: "There is so much care in life, so many that are victims of low spirits, so much of sorrow, so many that are languid through sickness or grief, or watching, or want, that any one who can throw a ray of light upon their spirits is a benefactor indeed. Good nature is the most practical of all kinds of benevolence. It gives itself forth without measure. It shines, like the sun, into all places, high and low alike. It chooses nothing, but blesses all, without discrimination. It allays strifes, pours oil upon friction, lightens the tasks of life, and diffuses a cheer and glow which wine cannot give; and all this, too, while the cause of all this blessing is himself, blesseded above all.

Some men are good-natured in spots, some are good-natured when they have their own way, or have fallen upon some good luck; some are good-natured when at ease, but cross when burdened; some are good-natured in company, and cross at home—all smiles and geniality in the store and among customers, but lowering and moping at home. Now and then we find a real son of light—a hero of the luminous heart! One who beams forth like summer upon all, everywhere; whom all men bless when he comes, and all miss when he goes! Such men ought to wear crowns. They do. Grateful thoughts, love and joy form the crown. They wear it unconsciously, but a hundred hearts place it upon their heads, and they go crowned with light all their days!"

Dyspepsia.—Dyspepsia is the most multitudinous disease extant. No two dyspeptics are precisely alike, while each may have more morbid feelings and varible sensations than he could relate in a week, as they are forever changing. In general terms, a dyspeptic should eat plain, simple food, at regular hours, masticate thoroughly, drink little or nothing while eating, take frequent and regular exercise, but always short of fatigue, sleep all that is possible, and bathe twice a week.

Warts.—Apply to the wart with the end of a knitting needle a little fuming nitric acid, to be had of the apothecaries. Repeat the application once or twice, and in two or three days the excresence will come off without leaving any mark.

Summer Drinks.

No beers, or wines, or brandies—nothing alcoholic! They are carbonaceous, and increase the heat and fever of the system; they clog up instead of lightening; they debilitate instead of giving strength. The tendency of the system in all lands, in summer, is to biliousness—to bilious diseases; we call them fevers. This is because we eat more than we wear out by exercise or labor; hence, the body becomes too full.

The great scavenger or emptier of the body is the liver; it is like the pump in a sinking vessel; you must keep it at work, or all is lost. As warm weather renders us incapable of doing as much work in summer as in winter, and as work was intended, in part, to work out the wastes of the system, some substitute must be provided, some compensating power. That power is the liver. It must be made to do more work in summer, and a beneficial Providence has made provision for this in sending us the berries and fruits of warm weather, which contain an ingredient (the acid) which, after six thousand years, the French found out, has its efficacy towards cooling off the body by acting on the liver—having an effect upon it to make it work more actively, and thus more promptly remove the bile, which is the waste matter of the system, from the blood.

Everybody knew that fruits and berries were cooling—were "healthy;" but how they were, was not definitely known until within a few years. The wisdom and benevolence of our Maker in this thing, surely, will command our affections, in that He has provided these fruits and berries in such generous profusion, and combined a necessary quality with such a delicious taste, that every soul of man is perfectly ravenous for them, and we can eat them without harm, to our utmost fill, if ripe, raw, and perfect, and taken alone.

In the absence of fruits and berries, we may obtain the needed natural acid from the lemon, diluted with water; but the most universally available acid drink for summer as a natural aid to the liver is buttermilk, not an ounce of which should ever be wasted, to be taken at meal times, or between meals when thirsty.

For the harvest-field, buttermilk is the safest, most healthful and cooling of summer drinks, to be taken at the temperature of the air. If a mouthful is swallowed at a time with a distinct interval, the thirst will be better satisfied with a quarter of a pint, than if a whole cupfull is taken without being removed from the lips.

A palatable and safe summer drink for outdoor workers is water, of the natural temperature, sweetened with molasses. All root beers are pernicious.—*Hall's Journal of Health.*

Nourishment for Food.

The wholesome or unwholesome character of any aliment depends, in a great measure, on the state of the digestive organs, in any given case. Sometimes, a particular kind of food is called wholesome because it produces a beneficial effect of a particular character on the system of an individual. In this case, however, it is to be considered as a medicine, and can be called wholesome only for those whose systems are in the same condition. Very often a simple aliment is made indigestible by artificial cookery. Aliments abounding in fat are unwholesome, because fat resists the operation of the gastric juice. The addition of two much spice makes many an innocent aliment injurious, because spices resist the action of the digestive organs, and produce an irritation of particular parts of the system.

In any given case, the digestive power of the individual is to be considered, in order to determine whether a particular aliment is wholesome or not. In general, we can only say, that aliment is healthy which is easily soluble, and is suited to the power of digestion of the individual; and, in order to render the aliment perfect, the nutritions parts must be mixed up with a certain quantity of innocent substance affording no nourishment, to fill the stomach; because there is no doubt that many persons injure their health by taking too much nutritious food. In this case, the nutritious parts, which can not be dissolved, act precisely like food which is, in itself, indigestible.

It is a very mistaken idea that the nourishment in food is according to the quantity; a person may eat a great deal of some article, and receive very little nourishment from them. The quantity of nourishment depends greatly on the aromatic flavor contained in food; and whatever is insipid to the taste is of little service to the stomach. Now, the difference between good cookery and bad cookery lies principally in the development of the flavor of our food; articles properly cooked yiold the whole of it; by good cookery we make the most of every thing—by bad cookery, the least.

Antidote to Phosphorus Poison.—On good authority it is promulgated that two drops of turpentine oil in a little milk is a complete antidote to phosphorus poison. Children not unfrequently bite off the charged end of phosphoric matches and swallow them. It is stated that a girl was recently saved in England by this newly discovered remedy, who had actually eight match ends in her stomach.

The Philosophy of the Chill from Wet Clothes.—Few persons understand fully the reason why wet clothes exert such a chilling influence. It is simply this: Water, when it evaporates, carries off an enormous amount of heat, in what is called the latent form. One pound of water in vapor contains as much heat as nine or ten pounds of liquid water, and all this heat must, of course, be taken from the body. If our clothes are moistened with three pounds of water, that is, if, by wetting, they are rendered three pounds heavier, these three pounds will, in drying, carry off as much heat as would raise three gallons of ice-cold water to the boiling point. Is it any wonder then that damp clothes chill us?

Buttermilk is an important aid to the digestion of any food taken with it; and by many hygienists is regarded as an excellent substitute for fruit in winter, and a prevention of spring sickness. It is especially recommended to invalids who suffer from indigestion—drink it at meal times.

Does Breathing Cold Air Cool the Lungs? Breathing cold air does not reduce the temperature of these organs to any appreciable extent. It is probable that oxygenation goes on more rapidly in the lungs than elsewhere, thus keeping up the supply of heat, lost by introducing cold air into them.

Domestic Economy.

Cooking Eggs.

Eggs bear a relation to other animal food similar to that which seeds bear to other vegetable food. They are the depositories of vitality, stored up to form a new link in the continuation of the species. They are probably the purest form of animal food, though they compare unfavorably with seeds in several respects. They loose their vitality sooner, and they partake more or less of whatever impurities may have belonged to the animal that produced them. They are not so nutritious as some of the seeds, and they require more care in cooking.

Like seeds, one of their principal ingredients is albumen, which is nearly pure in the white; but, unlike vegetable albumen, it coagulates with heat. If the heat is great, it becomes so hard as to be extremely difficult of digestion. Hence eggs are more easily digested raw than cooked, and hence also the objection to hard boiling. Dr. Beaumont found bits of hard-boiled egg-white, no larger than a pea, sometimes remained in the stomach after everything else had yielded to the action of the gastric juice. Such logic is unanswerable. He deduced from it the importance of careful mastication. We women can go a step further, and find in it an intelligent reason for so cooking the eggs, that they will not require this extra care. Fried eggs are still worse than those which are boiled, both because subjected to a greater degree of heat, and because of cooking fat into them.

Even in the common method of boiling them rapidly, "three and a half minutes," the albumen next the shell is quite too hard. It should be uniform and custard-like, and this is secured by the method, now becoming quite common, of merely letting the eggs stand from seven to ten minutes in hot water. This should be boiling hot at first, but the cool eggs reduce its temperature somewhat. The exact time required will vary with the relative proportions of eggs and water, with the size of the eggs, with the heat and thickness of the utensil used, with the warmth of the place where it stands, and with the weather also; a little more time being required in dull weather. The cook will soon learn what allowance to make for her utensils; and for the rest, she must use her judgment every time. They are not so easily spoiled, however, as in boiling. If left in a little too long, they can be plunged into cold water for a minute or two. If even kept hot until the yolks stiffen, the whites will not be hard. The yolk should be cooked just enough not to break rapidly when turned out. These are, properly speaking, not "boiled eggs," but "curdled eggs."

These curdled eggs make an admirable dressing for many breakfast dishes—boiled samp, oatmeal mush, cracked wheat, and especially for small hominy. The gentle method of cooking eggs may also be observed in making egg-toast. Have the milk almost boiling in a flat dish, and break in the eggs one by one, cooking a few at a time, and being careful not to let them run together. Sprinkle in a little salt, and let them stand hot and covered, until firm enough to take up without breaking. Then have ready some split batter-biscuit (gems), softened in hot milk and laid on a platter, and when the eggs are done, dish them one on each half of a biscuit, and serve warm. This is a handsome dish, and though not quite so digestible as hominy dressed with eggs curdled in the shell, it is still far better than the fried potatoes and griddle-cakes that form the staple of so many breakfasts.—*Science of Health.*

Cooking Beets.—The true way to cook a beet is to bake, not boil it. Thus treated and sliced either in vinegar or butter it is exceedingly palatable and nutritious. Boiling extracts the most valuable part of this vegetable.

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SAN FRANCISCO:

Saturday, June 28, 1873.

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Close of Volume V.

Our readers can find on the last page of this number, a full Index to the 5th volume of the PACIFIC RURAL PRESS.

It is well perhaps that we should say a word to our patrons in regard to our purpose in the future; the past being now a matter of record, how creditable to our offorts is not for us to intimate, further than that, if the encomiums so lavishly bestowed upon us by our patrons, the public and the PRESS generally, mean anything, we have reason to be pleased if not proud, of our now closed volume.

We have earnestly endeavored to keep the RURAL in the van of similar publications in the United States, and we fearlessly commeud our efforts to the scrutiny and judgment of the agricultural world.

For the future, as in the past, we intend our columns shall be replete with the records of agricultural progress, and enriched by a varied and interesting correspondence, avoiding everything that will be likely to offend the good taste of the most fastidious. We shall give the earliest account possible of the doings of the Granges of the Patrons of Husbandry, of Farmers' Clubs, and the State Farmers' Union; also proceedings of State, District, and County Agricultural Socicties, and Fairs; and of every interest that can promote the welfare of the farmers of the Pacific Coast, the RURAL PRESS can be relied upon as the faithful exponent.

We enter upon our sixth volume with an enlarged subscription, renewed energy, and with a determination of continued success. On our list of contributors are names of which any journal might well be proud, and who will please accept our warmest thanks for the past, whilst we hopefully solicit a continuance of their favors.

Our Farming Interests.

At the end of June, 1873, as we close out volume five of the RURAL PRESS, how stands the record? The last six months have been months of extraordinary interest to California agriculturists. A winter in which the genial and copious rain fall has seldom been excelled, gave promise of abundant harvests of grains and fruits and grasses.

The farmer who makes the cereals his main prop and crop, continued to sow his grains, till the advancing season, chary of its rain fall, admonished him to withhold his seed, and though confidingly looking for the expected rain, was nevertheless doomed to disappointment. The "latter rains" did not come and the disappointment was intense, for many had oast their every hope upon the never before failing April and May rains, to bring out and carry on to maturity their countless acres of late sown grain.

Disappointment was visible on every hand and despondency had nearly usurped the throne of hope, when a strange phenomenon—because of unusual occurrence— was presented in an almost continuous prevalence of cool days and colder nights, with heavy dews. This concurrence of fortuitous atmospherical conditions, that continued for many weeks, saved the grain yield of California from falling much below an average crop. Not that our yield per acre will be equal to an average of former years, but that with our increased acreage and a fair yield as now expected, the grand total of centals will fall but little if any below that of last year.

The Grass Crop

Will be better than usual in quality, from the absence of all rain during the cutting season; and as many grain fields intended for the harvester, have been mown for hay, the quantity will probably equal the average of previous years. The corn crop is about equal to last year in its promise of total centals, but in may places the crop will not come up to average of former years.

The Tobacco Crop

Will be the finest and the largest ever grown in California, and the new patented process of curing, will give it a value which will add largely to its importance as a regular field crop over vast acres of our warm southern valleys. Not a worm or blight of any kind or description appears yet to mar the hopes of the cultivator, and the crop in places is already being cut.

The Cotton Crop.

This too is a larger crop in California this year than ever before, and from accounts just received from some of the principal growers, the crop is looking geuerally excellent. In a few places, grasshoppers have done some injury, but as this pest is only an occasional and not an annual visitor, its ravages are but little dreaded.

The Stock Interest

Is everywhere in a flourishing condition, including sheep, goats, horses, cattle, the milk and dairy business and every interest connected with the growth of live stock. Thousands upon thousands of animals have gone to the mountains to revel in the green pastures of that great, free, upper world of ours.

The Fruit Product.

Fruit trees, though suffering in very many localities throughout the State from the unusually severe frosts of the first week in April, now give promise of an abundant fruitage. Strawberries have been plentiful and cheap. Apricots perfectly golden in coloring and of unequalled size and excellence abound on every hand, whilst cherries of all the finer varieties are simply unequalled in all the world for size and flavor.

The peach crop is upon the market, and though the gross yield may not aggregate as large as usual, it will doubtless be more than made up in size and excellence of single specimens. The apple crop will be large, and pears, which rival in ordinary years the same varieties throughout the world, will be, we think, better than usual.

The grape crop in many places suffered severe injury from the early April frosts and may yield from half to two-thirds of last year's aggregate, take the whole State together.

The Sugar Crop.

The two Beet Sugaries, one at Sacramento, the other at Alvarado, the former with some 1,400 acres of beets and the latter with several other hundreds of acres are preparing for a promising campaign, and of course the San Francisco Refineries are lowering the prices of the grades and kinds of sugars made by the Beet Sugaries. But as the companies are able to stand this game against a *home industry*, there will doubtless be a lively time, and a good opportunity for consumers to lay in a supply. And thus do our agricultural interests appear at the present writing.

Farmers' Anti-Monopoly Movement.

An Illinois paper, commenting upon the election of Craig, the farmers' candidate for Judge of the Supreme Court, says that that election is only an incident in the movement. It is not the end aimed at, nor the beginning of the end. It serves only to draw the dividing lines distinguishing those who are heartily in sympathy with the anti-monopoly movement, from those who tremblingly gave it a quasi endorsement, uot daring to take a positive stand on either side. The farmers have no idea of stopping their action with this election; indeed, no one thought of this election when they began operations; but they will go on until they elect a Legislature, Governor, members of Congress, and a President, if need be, if their objects are not attained otherwise. They are fully aware that it would be convenient, in a great movement of this kind, to have "friends at court;" to have meu in public positions who are in sympathy with them, and will render them assistance iu organizing and keeping together. Hence they will endeavor to see that the various county offices, to be filled next fall, are supplied with men who have already proved to be with them in sentiment and sympathy.

Nutritive Qualities of the Onion.

The onion deserves notice as an article of great consumption in this country, and it rises in importance when we consider that in some countries, like Spain and Portugal, it forms one of the common and universal supports of life. It is interesting therefore to know that in addition to the peculiar flavor which first recommends it, tho onion is remarkably nutritious.

According to analysis, the dried onion contains from twenty-five to thirty per cent. of gluten; it ranks in this respect with the nutritious pea and the grains. It is not merely as a relish, therefore, that the wayfaring Spaniard eats his onion with his humble crust of bread as he sits by the refreshing spring; but it is because experience has long proved that, like the cheese of the English laborer, it helps to sustain his strength also, and adds—beyond what its bulk would suggest—to the amount of nourishment which his simple meal supplies.

COUNTERFEIT HALF-DOLLARS. — There are counterfeit half-dollars in circulation that need watching. They are becoming a little too common to be agreeable to those who happen to be in possession of the base coin when detected. To one accustomed to handling much silver coin, it is not a dangerous counterfeit, if his mind is on the matter of detection. The base coin can be detected by its weight, as it is 36 grains lighter than the true coin. It is much softer than silver, so that a gennine half-dollar will easily scratch it. Under the microscope it presents a wrinkled surface. The test of scratching with a good half-dollar is always convenient and is all that is necessary. Look ont for them.

NEVADA STOCK RANGES.—The Pioche *Record* states that the appropriation of an increased breadth of land in California (formerly used as a stock range) to agricultural purposes, and the operation of the law in regard to fences around growing crops in several of the counties, has compelled the stock men to drive their cattle across the mountains into the extensive stock ranges in this State. Immense herds of oattle have also been driven into the State from Texas, and the conscquence is that the pricos of cattle are lower in Nevada now than they have been for many years. The range in this State is immense, and it will be many years before the land will be needed for anything else than pasturage for stock.

The Milk Supply of Cities.

In pursuing the subject of the milk supplies of some of the Eastern cities, we come to the matter of adulteration, and it is simply surprising to see to what extent it is practiced. That the vicious and unlawful practice should so generally prevail and among all classes of dealers, shows at least the tendency of human nature to perversity, when the opportunity is presented, with little or no chance of detection.

As regards the milk supply of Boston, adulterations have been traced to all classes of dealers, except the railroad agents: to wholesale dealers, who distribute to families, stores, etc., from wagons; to retail doalers, who sell in small quantities from market places, stores, shops, and cellars; and to milk producers. The foreign material of the adulterated milk is almost always water only. Salt is sometimes added to make up the loss in specific gravity, burnt sugar to alter the blue tinge of the watered milk, and carbonate of soda to prevent souring. During the winter few complaints of adulteration are made, but many that the milk is old, or that it has been skimmed. Poor families, for obvious reasons, are much oftener served with adulterated or inferior milk than the prosperous classes.

Duriug the year ending March 31, 1871, 1,700 samples of milk were inspected, of which 610 were found to be adulterated. Twenty samples analyzed by the chemist showed au average adulteration of 32.40 per cent., the largest percentage being 50.34, and the smallest 21.03. The number of gallons supplied to the city during the year was 8,510,340; daily supply 23, 316 gallons. The cost to consumers for the year was $2,893,515.60; daily cost, $7,-927.44. The whole nnmber of complaints in court from the enactment of the law to March 31, 1871, was 206; number of convictions, 135; failures to convict, 69.

The 1,700 samples of milk inspected during the past year, and the 610 samples that were found to be more or less adulterated, do not give the actual extent of adulteration throughout the city. The milk examined was supposed to be adulterated, or the inspector would not have bcen requested to test it. The quantity of milk adulterated and sold without exciting complaint can only be conjectured. It is a significant fact which the inspector states, that "in all the complaints carried before the courts during tho past year for violations of the milk law, the parties pleaded guilty, paid their fine and costs, and were advertised, as required by the statute."

The price of milk at the farmer's door averaged 4½ cents a quart; the price paid by consumers averaged 8⅓ cents per quart, or exactly 80 per cent. more than the farmer received. At the price obtained for their milk, farmers complain that they are not sufficiently compensated for their labor and capital invested. If they could receive some portion of the profits which the middle-men exact, they would have less cause for complaint, and consumers would not be so liable as they now are to an increase in price. Much attention is being given to various schemes for dispensing with the services of one or two classes of middle-men.

Milk in New York and Brooklyn.

Mr. C. F. Chandler, chemist to the metropolitan board of health, which has sanitary superintendence of the district comprising New York, Brooklyn, and certain neighboring towns, has presented to the board a report concering the results of investigations made by him into the character of the milk supplied to consumers in that district, from which we glean the following facts:

During the year 293 specimens of milk were chemically examined. Forty-one of these were taken in the latter part of February from cans in the hands of milkmen arrested in the act of diluting milk. Four samples contained proportions of pure milk ranging from 37 to 60 per cent.; nineteen contained 80 to 97 per cent. of pure milk; the remaining eighteen were entirely pure, probably for the reason that the work of dilution had been interrupted. In addition to these forty-one cans, four cans filled with water were found in the hands of milkmen.

In June and July, two hundred and ten samples purchased from retail dealers in various parts of the district were analyzed. In these the percentage of pure milk, as shown by the lactometer, varied from 37 per cent. to above the standard, averaging 72⅓ per cent.

During the last four months of 1869, thirty-five samples were examined, in whioh the percentage of pure milk ranged from 50 per cent. to above the standard, averaging 82.44 per cent. In these samples, as in all others analyzed during the year, water was the only adulterating substance discovered.

Mr. Chandler states that the average quality of the milk supply of the cities of New York and Brooklyn is represented by the addition of one quart of water to every three quarts of pure milk.

THE SEMI-TROPICAL LAND.—Again the section of country around Vacaville leads the State in the marketing of ripe peaches. The first coming to our notice on Sunday, June 22. At present writing, June 26, they are found at many of the fruit stands, and from this on, peaches will be the leading fruit of the markets.

HORTICULTURE.

The Reserve Garden.

It is but too frequently supposed, even by some who desire to be good flower-gardeners, that when their beds and borders are once filled in spring, they are complete for the season; this is an error, for how few even of our best bedding plants will continue in perfection for the long period of 6 or 7 months, although the moderate character of our California climate, or rather climates, is much more favorable for plants to remain long in bloom and in good health than the Eastern States. Numerous accidents may occur to flowering plants, however, anywhere; some may die, some may be broken by high winds, others may become exhausted, etc. Therefore, from numberless reasons, too obvious to require mention, a reserve garden is necessary wherever it is desired to keep the ornamental portion of the flower lot or garden in the best condition.

The spot selected as a depot for such extra plants as are likely to be wanted to take the place of the others which have been destroyed or injured in some manner, should be some shaded place where the necessary operations may be carried on without trespassing on the finished appearance of the garden proper, as it may be impossible or unnecessary to maintain the order here that should distinguish the more open parts of the grounds.

It will be requisite to have the flowers in a portable condition at all times; to secure which, implies the use of pots, which, under most circumstances, entails a great deal of labor in watering, cleaning, and general attention; yet there appears no practicable way of avoiding this, unless wooden boxes be substituted, and the plants placed in them as they are to stand when finally stationed; the evaporation is then considerably less, and consequently less water will suffice.

A good stock of the most showy annuals are often of great service in the fall, and if sown as early as possible in the spring, will commence blooming, perhaps, about the time they are most likely to be wanted, or, at any rate, the next season. These and all other plants kept in pots must be plunged either in old tan or ashes, as it is far better for them to prevent the draft arising from exposure to the air, than to make good the deficiency by watering, though it be ever so well attended to, and they are pretty certain to require as much under the most favorable circumstances as it is usually convenient to give them. Above all things, observe that whatever is kept in this reserve spot, as a *corps de reserve*, with a view to its ulterior removal to the flower garden, be kept at sufficient distances from one another, to allow of a vigorous development; for, as in all other cases, crowding will inevitably spoil their appearance, the want of a full supply of pure air being quite as evident in the vegetable as in the animal kingdom.

Hedge, Shade and Wind Breakers.

From a correspondent, W. T. Evans, of Dry Creek, Stanislaus Co., we have received the following in relation to the adaptability of the Elder to the growth of hedges, etc. He says:

It is a hard matter for a *poor* farmer to make his home comfortable upon our arid plains on account of the difficulty and cost of obtaining machinery for the irrigation of trees and shrubs. But many there are, on those plains, who wish to have a garden, and some shade about it. Now from experience I suggest the following, for both fence and shade, and it will cost only the labor.

The Elder.

This is a very common shrub and will grow in any soil without irrigation, and will not only make shade, but will also make a good and everlasting fence, if planted in the following manner, and if properly trimmed quite ornamental: During the autumn season, when the first rains make the ground soft enough, dig a trench about two feet deep, and leave it open until the first or the middle of February; then cut your slips from three to four feet long, and of two years growth wood; make holes with a crowbar in the bottom of the trench about eighteen inches apart; stick down the slips, throw any rubbish in the bottom of your trench—straw will do; fill up the trench with earth and pack it closely, and in a short time you will have a good fence.

The berries of one variety is very much esteemed by many, in the shape of pies and wine; and what can be more gratifying to the senses than the delicious perfume of its flowers in their season.

MADDER.—The *Alta* says, John L. Beard, Esq., has growing on his farm at Centerville, across the bay, about one acre of *madder*, the root of which is used for dyeing purposes. The seed was brought by Mr. Beard from Holland to be used as an experiment, which so far appears most successful. We are informed that no other attempt has been made to cultivate the plant in this State.

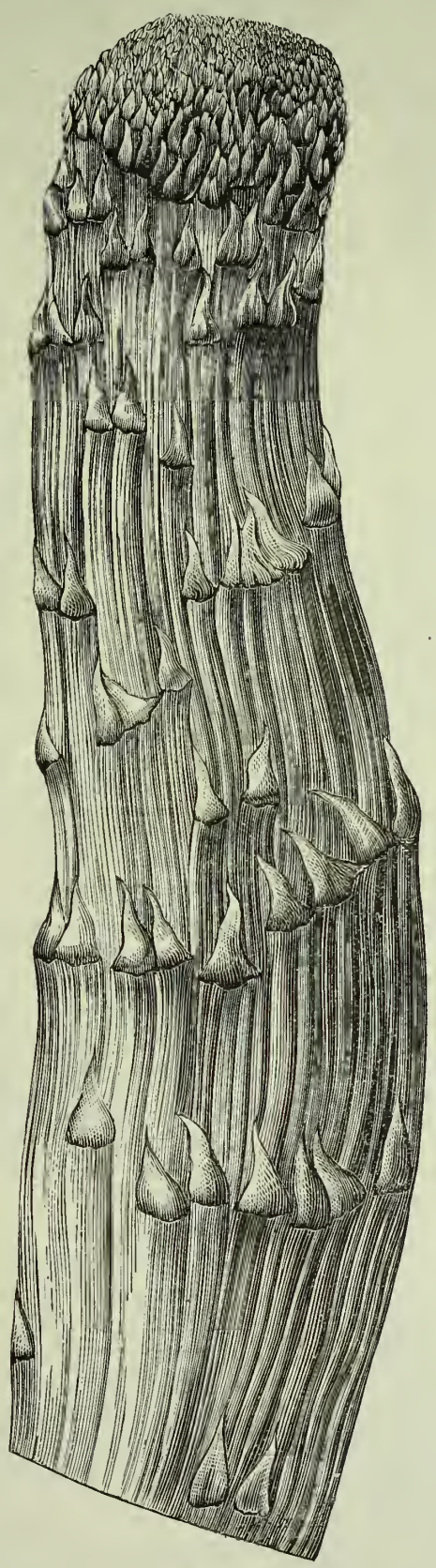
Giant Asparagus.

In the catalogues of several Eastern seedsmen, we see advertised the so called "giant asparagus," and sometimes accompanied by engravings representing the size to which particular varieties attain. But when we procure the seeds or roots of those very varieties, the product proves to be no more of a giant variety, than the most common, cultivated by scores and scores of acres in the vicinity of San Francisco and Sacramento.

If we manure strongly, we obtain from soil suited to the production of asparagus, a perfectly gigantic growth; but it is not because it is of this or that particular variety, for we find we can do it with any variety. Not only do we obtain an immense growth as regards the size of the shoot, but we get enormous yields per acre.

Owing to the stimulating effects of soil and climate or both, upon its growth, we commence cutting earlier and continue later into summer, without injury to the plant than in any other land or climate known. This peculiarity of enormous growth, pertains to nearly all our vegetables, but particularly to asparagus; so that we occasionally learn of instances and see specimens that are simply monstrous; as though the whole strength of the plant had been centered in the one effort to see just what it could do, and which results in the production of a shoot such as we represent in our engraving.

It is as if four or more shoots of large size were joined together side by side in regular platoon, as though the object was to conquer by a union of forces resulting in a single shoot, quite unequalled in size by any ordinary growth. The measurement of the specimen here presented—which was kindly loaned us by G. Onesti & Co. fruit merchants 501 Sansome street, S. F.—was made by laying the shoot upon paper and tracing a line close to its sides and ends, and is a truthful representation of the size of the shoot in its largest diameter.



ASPARAGUS GIGANTEUS.

Perhaps some of our Eastern exchanges can show us as perfect a growth in a single shoot, as the one we present, in which one sprout will suffice for a dinner.

SULPHUR VS. GOPHERS.—EDITORS PRESS:—Under the above head you ask the quantity of sulphur used per square rod. I cannot say as to the quantity, but used enough to so thoroughly saturate the ground that a gopher could not run his hole without coming in contact with the sulphur. A. W. S.

It would seem from the above, that to rely upon an application of sulphur to the soil as an antidote to the transit of the gopher, it could hardly be practicable upon an extended scale; however, if a narrow belt or border of sulphured soil would turn them, considerable areas might be surrounded with a sulphured belt of the requisite width and depth of soil as to make the plan to some extent feasible.

BLACKBERRIES.—Black but sour, because not fully ripe, are plentiful. The wild variety, earlier than the cultivated ones, are nearly all gone.

Fertilizers for Sugar Beets.

Col. Ehrnstein, of the Sacramento Beet Sugarie, has been in San Francisco inquiring for guano. The Company's land is a rich American river botton, much of which is annually enriched by the muddy overflow of winter. Usually this is considered sufficient return to the soil for the yearly crop abstracted. But Col. Ehrnstein desires to test the effects of guano in fertilizing the soil for sugar beets, having some misgivings regarding the continuous yearly production, of one kind of crop, unrelieved by either alternation or strong fertilization.

So far as our information goes, the guano deposits along our coast have lost their ammonia by the rains of winter. Recourse must be had to bone manure. If bones are dried (not charred), they can be ground into manure not much inferior to guano.

The Sacramento Company's crop of sugar beets — say 1,400 acres—is all that can be desired. The mill will begin work before the first of August, and a propitious return is now assured. The shareholders expect the year's profit to be $100,000.

The army-worm attacked the crop in the Spring. It may be interesting to farmers to learn Col. Ehrnstein's sure specific for that disease. He bought 500 turkeys and turned them into the fields. They soon turned the evil into good. In a few days they gobbled up the army, and converted it into rich and profitable meat. Hereafter a turkey ranch will form a necessary supplement to the sugarie, and its profits will excel those of the fatted cattle that feed upon the offal of the mill.

There are companies in France and in England that pay handsome dividends by utilizing the refuse from various factories. But higher honor is due, and greater national benefit is derived, from the conversion of living devastators to the use of man—the destroyer turned into a producer.—*Alta*.

TO OUR FARMER PATRONS.—We do not often occupy space in our columns recommending the persual of articles published; because we think our readers capable of judging for themselves of the merit they may possess, as well as we; but now we desire for once to direct the reader's attention to an article headed, "Patrons of Husbandry," in this number of the RURAL, because the same contains great truths, that may yet "shake the dry bones" of old political organizations.

GOPHERS.—A correspondent at Sweet Water San Diego Co., recommends to bore a half-inch hole in a stick of wood 3 or 4 inches deep, then fill with wet gunpowder half an inch, then dry powder a quarter of an inch, and so on till full, with wet on top. Clean out the hole and put in the squib, set fire to it and quickly cover up close. The fumes will either smother or drive the gophers away; it has never failed in the experience of our correspondent.

THE superfluous blossoms on a fruit tree are meant to symbolize the large way in which God loves to do pleasant things.

PATENTS & INVENTIONS.

Telegraphic List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS]

By Special Dispatch, Dated Washington, D. C., June 24th, 1873.

FOR WEEK ENDING JUNE 10th, 1873.*

ELECTRICAL GAS LIGHTING APPARATUS.—John Vansant, S. F., Cal.

COOKING RANGE.—James H. Mitchell, S. F., Cal.

EXPLOSIVE COMPOUND.—Thomas Varney, assignor to the Giant Powder Company and the Atlantic Giant Powder Company, S. F., Cal.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with greater security and in much less time than by any other agency.

2,000 More this Year.

Within the past twelve months we have added over 1,500 new names to the subscription list of the PACIFIC RURAL PRESS, many of whom have expressed themselves as highly pleased with the paper, and testified to the value of its information to the farming public of this Coast.

We intend to condense more interesting reading matter than ever before into our columns, during the coming year, and at greater cost to the publishers, so we would welcome

Assistance from Our Subscribers

To help fill up our subscription lists. We need 2,000 added to our little army of readers and improvers. Does not every patron of the RURAL believe that 2,000 names added to the list would do the Coast marked good? Please help us, then, reader, and we will help you and the community together.

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To encourage further patronage we offer the PRESS, at present, for eighteen months at $5.50 in coin, $6 in currency, *to old or new* subscribers, whether sent to the office or paid to our agents. These are the best terms that can be afforded for a journal issued on this coast and filled with so appropriate and fresh matter for its special readers.

Sample copies will be sent free to all who wish to try and help our paper.

Consumption of Sugar.

During the past year 83,000,000 pounds of sugar was imported to the Pacific coast. Of this 65,500,000 pounds was consumed. There was only 1,500,000 pounds of beet sugar manufactured in the State, by the factories of Sacramento and Alvarado, so there is still room for eighty-six such factories, giving employment to 8,600 operatives for seven months of the year—from August until March—not to speak of the Chinese, numbering one hundred, on the Alvarado Company's farm, where they are employed in weeding, hoeing, etc. These Chinese are the only hands at present employed on the Alvarado farm, and are kept to cultivate the young beets.

The Future Prospects of Beet Culture.

Although various opinions are entertained as to whether or not the growth of beets is beneficial to the soil, the prevailing idea is that it is attended with good results. Many of the farmers in the neighborhood of the mill who raised beets for two consecutive years and sowed wheat on the third, found the crops better than usual. The hoeing necessary to the growth of beets effectually clears the ground of the luxuriant weeds so detrimental to young grain. Every farmer is aware of the fact that the soil requires a change in the kind of produce it raises. Successive crops of one particular variety only impoverish the soil.

Should the manufacture of beet-sugar become extensive, the demand for beets will probably influence farmers (as in the case of those in Alvarado) to resort to their culture as a change of crop. The venture of the Alvarado Company has proved eminently successful, and the farmers of the locality have discovered that it is possible to raise a very fair crop of beets when wheat from excessive moisture or drought has entirely failed. The prospects of beet culture in this State are exceedingly promising, and with the decline of cane-sugar manufacture in the arid fields of the Southern States, it is not improbable that it will ultimately be the source of supply of a large portion of the sugar consumed in the United States.—*Bulletin*.

ON FILE.—Crazy Disease; Paradise Valley; Wayside Gleanings; and three or four others not yet examined.



Something About Fleas.

An amusing article on fleas, which lately appeared in the New York *Tribune*, concludes as follows:

How to Drive the Fleas Away.

In view of the impending danger with which we are threatened by the increasing prevalence of fleas, it is well to devise ways and means whereby the peril may be averted. The old-fashioned way of annihilating them by compression between the two thumb-nails is a very tedious one, and requires much skill and much practice. Besides, one pair of thumbs will do but little execution, and while the executioner is putting an end to the existence of a veteran flea, his posterity down to the fifteenth generation are bringing forth other fleas in thousands. An old lady, who has had some experience in a pulicose neighborhood, says that the only way to rid the house of the vermin is to saturate everything in it with spirits of turpentine and set fire to it. This method is objectionable chiefly on account of the expense. The ancients according to Aristotle, used a decoction of a weed—probably the English flea-wort (*crigeron viscosum*)—but the weed does not grow in this country. It behooves our scientific men to put their heads together and from the multiplicity of drugs and chemicals, whose properties they understand so well, to prepare a flea-annihilator, by the aid of which, and without giving unnecessary pain to the fleas, the public may be relieved of the annoyance forever—something which shall place every individual flea beyond the least possible hope of reintegration.

Fleas and Art.

This troublesome little animal, which is liable to make our lives very uncomfortable this summer, has been frequently apostrophized by poets, a class of people who seem ready to apostrophize anything. Somebody says that beauty is but the aptitude of parts harmonious. This places the flea among the class of objects which make up what devotees of art call "the beautiful," for his parts are surely well adapted to the uses for which they were designed, and arranged with marvelous ingenuity. No wonder, then, that poets have written about him.

Beethoven wrote a song about the king who had a monstrous flea. This flea the king dressed in gorgeous robes, knighted him and sent him forth to annoy the ladies and nobles of his court. But, as the song says, the victims revenged themselves upon all the other fleas. The manner of their revenge is given in these touching lines:

"We snick 'em and we snapp 'em.
And we snack 'em with a snick;"

Which was the primitive way of killing fleas very similar to that in vogue among the monkeys at Barnum's.

Fleas are naturally intelligent. They have been trained to perform upon the stage, and have been highly complimented by crowned heads, which had suffered none of their persecutions. But the task of civilizing the savage is nothing in comparison to that which awaits the flea-tamer. Until the coming man appears, it behooves us as good citizens to sacrifice the gentler feelings of our nature, and, acting for the general good, rather than for the improvement of a single race, make war by snack and snick upon our invaders, that our days of comfort may not be shortened, and our nights rendered sleepless by his innocent though annoying persecutions.

Why the Difference.—A hard working girl, named Lizzie Wallace, living in New York, losing a relative, and having no money to pay for the burial, pawned some furs that belonged to another person, to meet the expense, intending to redeem and restore the goods as soon as she could earn the means. For this she was sent to States prison for one year. In the meantime, the fact is noted that Hon. Wm. M. Tweed enjoys excellent health, and intends making the tour of Europe next summer. And yet the world blindly believes that justice reigns.

Short Letters to Young Girls--No. 1.

[Written for the Press by Eliza E. Anthony.]

Don't think from the title of this little sketch, that I am going to lecture you; not a bit of it; this is only meant for a social chat, and you will pardon me, if I occasionally point out some of your faults and help you to do better. First, and foremost I will say:—Be neat in your personal appearance at home as well as abroad. Don't put on ragged, soiled undergarments, and a silk dress on top of all; far better to have neat, whole, clean underclothing, than to have the outside apparel flounced and ruffled from waist to hem.

I once read of a lady, who entered a street car dressed in the hight of the fashion, with a silk dress, velvet mantle, dainty hat, and jewelry enough to start a small store. She looked loftily around her, and gave a scornful glance at a plainly dressed girl who sat beside her. As she left the car where it was very muddy, she had to lift her costly silk rather high, to avoid the mud; and underneath the handsome silk, was a ragged, dirty skirt, and in her stockings were holes innumerable. But when the plainly dressed girl alighted her slightly lifted dress disclosed a coarse, but spotless skirt, snowy stockings and well fitting shoes. Which, think you, would you rather have been?

It is a good plan to look over your garments every week, after they have been ironed, and those that need mending, lay aside; and the rest, fold neatly, and lay in your bureau drawers. Put the large articles in one drawer, and the stockings, handkerchiefs, collars, etc., in another. Have a place for everything, so if necessary, you can lay your hand on any article you wish in the dark. Five minutes work at the proper time on a torn garment may save half an hour's work, the next week, and I repeat, girls, it is better to have whole, clean underclothing, and a calico suit on, than soiled, ragged clothes, and a silk dress to cover them. Sensible men and women, will admire you far more, and you will have more self respect for yourself. If agreeable, you will hear again from me soon.

Singing of Birds.

This seems a spontaneous effusion, producing no lassitude in muscle or relaxation of the parts of action. In certain seasons and weather the nightingale sings all day and most part of the night; and I could never observe that the powers of song are weaker or the notes become harsh and untunable after all these hours of exertion. The song thrush, in a mild, moist April, will commence his tune early in the morning, and pipe unceasingly through the day, yet, at the close of eve, when he retires to rest, there is no obvious decay in his musical powers, nor any sensible effect required to continue his harmony to the last. Birds of one species sing in general very like each other, with different degrees of execution. Some countries may produce finer songsters, but without great variations in the notes. In the thrush, however, it is remarkable that there seem to be regular notes, each individual piping a voluntary of his own. Their voices may always be distingnished amid the choristers of the copse, yet some one performer will more particularly attract attention by some peculiar modulation; and should several stations of these birds be visited the same morning, few or none, probably would be found to persevere in the same round of notes, whatever is uttered seeming the effusion of the moment. At times, a strain will break out perfectly unlike anything that had preceded, and we may wait a long time without noticing any repetition of it. Harsh strained, and terse as the notes of this bird are, yet they are pleasing from their variety. The voice of the blackbird is indefinitely more mellow than that of the thrush, or marvis, but has much less variety and compass of execution. The blackbird, too, commences his carols with the morning light, persevering without effort or any sensible faltering of the voice. The cuckoo wearies us throughout some long May mornings with unceasing monotony of its song, and, though there are others as vociferous, yet it is the only bird I know that seems to suffer from the labors of song. Little exertion as the few notes it makes use of seem to require, yet, by the middle or end of June, it loses its utterance, becomes hoarse, and ceases from further essay.—*London Musical World.*

Shall we Meet Again?

The following is said to be one of the most brilliant articles ever written by the lamented George D. Prentice:

But the fiat of nature is inexorable, there is no appeal for relief from the great law that dooms us to dust. We flourish and fade as the leaves of the forest, and the flowers that bloom and wither in a day have no frailer hold upon life than the mightiest monarch that ever shook the earth with his footsteps. Generation of men will appear and disappear as the grass and the countless multitude that throng the earth to-day will to-morrow disappear as the footsteps on the shore. Men seldom think of the great event of death until the shadow falls across their own path, hiding from their eyes the traces of the loved ones, whose loving smiles were the sunlight of their existence. Death is the antagonist of life, and the cold thought of the tomb is the skeleton of all feasts. We do not like to go through the dark valley, although the passage may lead to paradise; and with Charles Lamb, we do not want to lie down in the grave, even with princes for our bed-fellows.

In the beautiful drama of Ion, the instinct of immortality, so eloquently uttered by the death of the devoted Greek, finds a deep response in every thoughtful soul. When about to yield his young existence a sacrifice to fate, his beloved Clemantha asks if they shall not meet again, to which he replies: "I asked that dreadful question of the hills that seem eternal—of the clear stream that flows forever—of the stars among whose fields of azure blue my spirit has walked. As I look upon thy living face, I feel that there is something in thy love that cannot wholly perish. We shall meet again, Clemantha."

Business as a Burden.

A highly respected friend, a retired business man, says the *N. Y. Independent*, thus comments on our recent article entitled "Health, Happiness, and Gold:"

I am convinced that the machine is run too closely, too intently, and under too high pressure: First, too make a living, then to make a position, then to make an estate; and alas! then because it is fit for nothing else. The mind is distorted from a natural channel, and confined to an unnatural one, till both mind and body, like unoiled machinery, run to their own destruction. Each man looks forward to that "rest" that is in store for him, toiling on, toiling ever; like the inebriate, he is the slave of his own passion, self-created, and when he proposes to strike off the shackles, the music of their rattle is like that of the toy of his childhood, his only joy.

If in the picture you can see what surrounds you, and the features are not attractive, think you the morality is to be escaped by others who breathe the same atmosphere? While the affections are fresh, the impulses natural, and the thoughts are not absorbed by commercial pursuits, surround yourself with influences calculated to conteract the centralizing tendencies of trade, to lesson the appetite for accumulation.

"What though we wade in wealth, or soar in fame,
Earth's highest tribute ends in 'here he lies,'
And 'dust to dust' concludes the song."

Whining.

There is a class of people in this world—by no means small—whose prominent peculiarity is whining. They whine because they are poor; or, if rich, because they have no health to enjoy their riches; they whine because it is too shiny; they whine because they have "no luck," and other's prosperity exceeds theirs; they whine because some friends have died and they are living; they whine because they have aches and pains; because they whine, and they whine no one can tell why.

Now we would like to say a word to those whining persons. First, stop whining—it is no use, this everlasting, fretting, fault-finding and whining. Why, you are the most deluded of creatures that ever lived! Do you know it is a well settled principal of physiology and common sense that these habits are more exhausting to nervous vitality than almost any other violation of physiological law? And do you not know that life is pretty much as you make it. You can make it bright and sunshiny, or you can make it dark and shadowy. This life is only made to discipline us—to fit us for a higher and purer state of being. Then stop whining and fretting, and go on your way rejoicing.

Young Folks' Column.

Opening the Door.

"I'll never forgive Fred!" said Dora, angrily, as she came into the parlor, holding up before her mother the fragment of a little toy—a tiny sofa—a piece of a set of furniture her uncle had given her a few days before.

"Dora, my child!"

"Well, I mean just what I say," continued the angry little girl. "Fred came rushing into the room, just as he always does, and trod on it with his great boots; and when I spoke to him about it he said he didn't care a bit, and wished he had broken my chairs, too."

"Think before you say any more, my dear. Perhaps you vexed Frederick by your manner of speaking."

"I only told him he was careless and stupid, and so he was. It's too bad. No, I'll never forgive him;" and as she turned over the ruined toy in her hands, her face grew dark with wicked feelings.

"Hark, Dora, listen! some one is knocking, I am sure."

Little Willie, a younger brother, stdoppe playing with his blocks on the floor, and looked at the door, as if expecting a visitor.

"What do you mean, mamma? I do not hear any one," said Dora.

"Have you forgotten, my daughter, that there is a door to every heart? You have opened it once this morning, and let in an evil, hateful thing. No picture that could be made of it would be too dark to represent what is now in your heart."

Dora hung her head, for she began to understand her mother.

"And now, if you will listen, you will find One, your best Friend, at that door. He is knocking gently. Dear little daughter, let him in. He has a message for you, and it is: 'If ye forgive not men their trespasses, neither will your Father in heaven forgive your trespasses;' and that word 'men' means everybody."

Dora's heart was softening. The tears came into her eyes. She opened the door of her heart a little way. Willie, who had been listening, came, and putting his little arms around her neck, kissed her, but said nothing. Her heart's door swung wide open now, and love entered.

"Yes, mother, I will forgive Freddy," sobbed Dora. "I was as much to blame as he; and I know I spoke spitefully, or he would have felt sorry when he did it."

"Then, my darling, thank that dear Friend who has found his way into your heart with his love, and now go to Freddy and make up with him."

Dora laid away the fragments of the sofa and went out with sunshine in her face and joy in her heart; for its door was closed again, and her best Friend was within.

You Will be Wanted.—Take courage my lad. What if you are but a humble, obscure apprentice—a poor, neglected orphan—a scoff, and a by-word for the thoughtless and gay, who despise virtue in rags, because of its tatters. Have you an intelligent mind, untutored though it be? Have you a virtuous aim, a pure desire, and an honest heart? Depend upon it, some of these days you will be wanted. The time may be long deferred—you may grow into manhood, and you may even reach your prime, ere the call is made; but virtuous aims, pure desires, and honest hearts are too few not to be appreciated—not to be wanted. Your virtue shall not always hide you as a mantle—obscurity shall not always veil you from the multitude. Be chivalric in your combat with circumstances. Be ever active, however small may be your sphere of action. It will surely enlarge with every movement, and your influence will have continued increasement.

Do Your Best.—"When I was a little boy," said a gentleman one evening, "I paid a visit to my grandfather, a venerable old man, whose black velvet cap and tassel, blue breeches, and huge silver knee-buckles, filled me with great awe. When I went to bid him good-bye, he drew me between his knees, and, placing his hand on my head, said: 'Grandchild, I have one thing to say to you: will you remember it?' I stared into his face and nodded; for I was afraid to promise aloud. 'Well,' he continued, 'whatever you do, do the best you can.' This, in fact, was my grandfather's legacy to me, and it has proved better than gold." To all our youthful readers we would urge the above admonition—do your best.

An Item for Experimenting Boys.—With a knife split in two parts a well shaped hickory nut; carefully pick out all the kernel or meat, without breaking any part of the divisions of the shell, then, with a string or wire, tie the two parts together as before they were split, and you will have a capital mould in which to run melted lead, after making a hole at the top of the nut to pour it in. The effect of the bright shining metal in the form of the original kernel is very pleasing.

"Bill," said Bob, "why is that tree called a weeping willow?" "Cause one of the sneaky, plaguey things grew near our schoolhouse, and supplied our master with switches."

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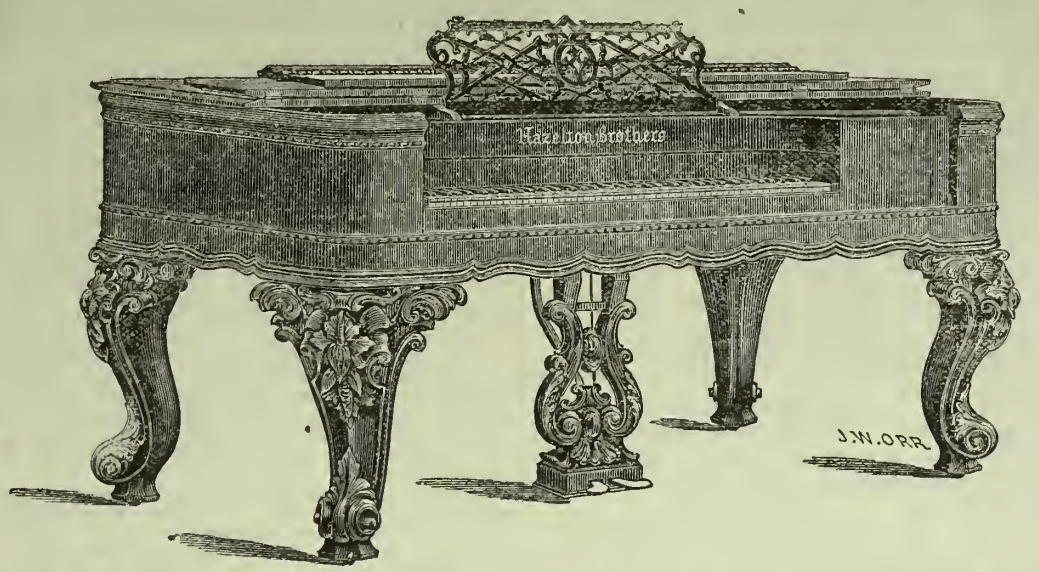
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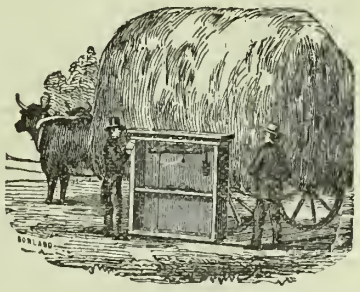
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19v5-3m

(Continued from Page 405.)

high grade are among the flock, and they thrive excellently. No country is better adapted to raising these animals than the mountains of this state, and it is bound soon to become a very profitable business.

Republican, June 21: TROUT EGGS.—Last evening John Williamson, Secretary and Superintendent of the California Acclimatizing Society of San Pedro Point, San Mateo county, shipped from Truckee, 100,000 trout eggs. They were obtained at Lake Tahoe, and are the largest number ever shipped from the lake. The business of trout raising is increasing rapidly on this coast, and is soon destined to be an important and profitable branch of industry.

OREGON.

Sentinel, June 21: RAIN.—The nicest showers of the season fell the fore part of the week, though the farmers who had their hay crop down didn't seem to like it much. We have not heard of much damage being done in that particular, however, while on the other hand the rain was a great benefit in laying the dust and purifying the atmosphere.

Oregonian, June 21: The wheat crop in Douglas county this year will be over average.

A thousand head of sheep started from Polk county for Eastern Oregon last Monday.

The leading farmers of Soap creek are now organizing a Farmers' Grange. These societies are rapidiy coming into favor with our farming community.

Mr. Solomen Emerick, of Washington Co., took a fleece weighing ten pounds off one of his yearling ewes that had run on the range since its birth, and looked after its own self.

The Albany Farmers' Company have purchased of Mr. Westlake his splendid warehouse. The price given is $12,000. The company propose building a large addition to the warehouse before harvest.

Sheep-raisers are busy iu shearing their flocks in Linn county. The clip will be larger than ever before. But little wool is selling. A few sales have been made in Albany at twenty cents and the rise of the market.

WASHINGTON.

Walla Walla *Union*, June 14: BUSY.—We see that our blacksmiths are all kept pretty busy. The principal work now being done by them is shoeing horses and repairing wagons and harvesting machinery. The farmers seem to be buying but little new machinery this season, in comparison with what they did last year, and appear determined to make the old wagons and reapers do for one more year at least.

GRASSHOPPERS.—There are a great many grasshoppers in some of the grain fields and they are doing some little harm. But as the harvest is so near at hand they will probably not do much damage. But we may thank good fortune that they did not come earlier in the season and in greater numbers.

SQUIRRELS.—In some fields the ground squirrels are doing great damage. We have seen some places where they have taken acres of grain clean as they go. Thus far the only remedy that we have heard of is strychnine. And this is an expensive, troublesome and dangerous remedy. In some instances, dogs and cats have been poisoned, while the squirrels have escaped, and now have things all their own way, since the dogs and cats give them no more trouble.

Patrons of Husbandry.

We had the pleasure, a few days since, of a call from General Deputy N. W. Garretson, who visits this coast for the purpose of introducing here the unwritten work of the Order of Patrons of Husbandry, and further aiding in the incipient steps now being taken to put the farmers of this State in the way of securing for themselves those material benefits and advantages already enjoyed by their brethren in the States of the Mississippi Valley. We feel assured that Mr. Garretson will be everywhere cordially received by those in whose interest he is laboring, and would take the opportunity here to respeat what the Iowa *Homestead* says of his visit here:

We have just learned that Brother N. W. Garretson, of this State, has been commissioned hy the master of the National Grange as General Deputy to organize granges in the order of Patrons of Husbandry in California, Oregon, and Washington Territory; and that he leaves Iowa on his important mission during the present week. We have known Brother Garretson for years, and feel it a duty, as it is a real pleasure, to record in *The Homestead* what we know of hiu as a man, and of his services as a friend of the best intcrests of the farmer and humanity.

He has heen a wo-king member of the State Horticultural, also of the State, and Madison county Agricultural Societies, and is in complete sympathy with all the Interests of the country. He has been acting as Organizing Deputy for Madison county, having heen initiated a Patron of Hushandry as soon as he became acquainted with the principles and objects of the order, and a membership of 2,000 in this county attests his success as its Depnty. Brother Garretson has done much for the cause in Iowa, and there is no truer, more zealous, or more modest momher in our noble order, and there is none who better understands the dignity, the spirit, and the detail of the work; and with the hearty cooperation of the friends of the movement in his new and fertile field, success will assuredly crown his efforts.

Brother Garretson has been a resident of Madison county, Iowa, for over twenty years, and has spent all hut about three years of this time in active farm life, and when not so employed he was serving his county as Prohate Judge, to which office he was twice elected against his wish, and which positlon he resigned durhis second term that he might give his attention to agriculture, whloh is his ruling passion. For some years he has given his attention largely to fruit growing, and to-day his fruitery is second to none in Iowa.

That the order will prove a great hlessing to the farmers, and indirectly to the laboring masses in our most Western, as well as in the Eastern, Southern and Middle States, there can be no donht.

Bro. Garretson goes from us with our unqualified commen'ation to the confidence of the farmers and all who may meet him.

The Objecls of the Palrons of Husbandry Briefly Slated.

General Deputy N. W. Garretson states the object of the order to be briefly as follows:

1. The ennohlement of labor aud the fraternizing of the producing classes.
2. Bringing more nearly togother the producer and the consumer.
3. Mutnal instruction. The lightening of lahor hy diffusing a hetter kuowledge of its aims.
4. Social culture,
5. Mutual relief in sickness and in adversity.
6. Prevention of litigation.
7. Prevention of cruelty to animals.
8. The overthrow of the credit system.
9. Building up and fostering home industry.
10. Mutual protection to husbandmen and industrial classes.

The Patrons and Politics.

The following letter from the General of the National Grange fully explains itself, and the connection which the Granges have with the political movements of the day:

GOUVERNEUR (N. Y.), May 23.

To the Editor of the Utica Morning Herald:

Having seen an editorial in the *Herald* opposing the Order of Patrons of Husbahdry as wicked and tyrannical, and many times having my attention called to the fact that others of like import had appeared, I write to you.

It is evident you are not aware what our Order is. The discussion of partisan politics is forbidden by our Constitution, yet we believe that we, as men (not as Patrons of Husbandry), should, as a duty, scan very closely the acts of our puplic servants; that we, as producers, while we furnish food for the millions, fight our nation's battles, defend its liberties in the time of danger, should, of a right, have an equal share as such, in the making of those laws by which all are governed; that we have a right to demand that, in all things, whether political or otherwise, the principles of common honesty shall not be wholly ignored, and to place ourselvss in a position to enforce that demand.

We acknowledge the fact that mind will always triumph over matter, and that an active mind will gain the profits of our toil, will always be successful so long as we, like the ox, depend only on our muscular power; but we find that the Great Ruler has given us brains also, and if He has given us them, it was that we might use them. True, we have men of active minds and of great wealth arrayed against us, but we begin to realize the fact that they cannot eat their money, and hope that ere many years pass away we will be able to show the great kings of monopoly that there is in our Order a most noble conception; that a principle is about to be born that to him or to her who labors belongs the pay.

Yes, even farmers are beginning to believe that they can, in a measure, fly their own kite, and perhaps soar as high and continue as long on the wing as though we should continue to hang at the tail of kites of others. We see a vast river of wealth continually flowing from the hands of the needy into the hands of the few, who already possess their millions. Now, we mean to stop those waters, by legislation, if we can; if not, by some other honorable means. We know no party, but we consider it the duty of all connected with us to—outside of the Grange—see to it, that the candidates of all parties be men of integrity, whose interest is the welfare of the people, and not political ring-masters.

Men profit from knowledge gained by others. The steam engine was not brought to perfection by one man, but each of its inventors took hold where the other left off. So, too, with rascality; each has taken hold where the other left off, until it seems to have outstripped in perfection the steam engine; but, single-handed, man could not have made rascality such a science, but they have combined—combined to fleece those who earn their bread; and there remains no safety for the producer but to combine also, and, too, as thoroughly as those arrayed against him. Yet our society is not for the farmer alone, but for all whose interest is with us.

In the Grange also we are taught to advance the interests of education. In short, the Grange of Patrons of Husbandry is for the elevation of the masses socially, mentally, morally and financially, and we hope that the press of no political party will so oppose that we shall be compelled to regard them as our enemics. C. D. BEEMAN.

General National Grange P. of H.

The Irrigation of San Gabriel Valley.

How to Save and Increase the Water Supply of the San Gabriel Valley—Distribution of Water to Irrigators—Potato Culture in Connection with Irrigation—By W. W. Maxey. Read before the Farmer's Club of San Gabriel Valley, June 7, 1873.

AZUSA, June 7, 1873.

Your Committee on Irrigation beg leave to report the following, by Mr. Warren W. Maxey, as suitable methods of saving and distributing water, as also for irrigating for this section of the county.

I have known very many localities since 1854, where, without water, a crop was impossible. From 1854 to 1860 there was a gradual extension of the irrigating system; yet in 1860, there were only some eight or ten farmers who irrigated. These were at Ranchette and at Los Nietos, and derived water only from the same sources as now.

This small number were then often at war, on account of the scarcity of water. Now this same amount of water, by reason of system in its management and distribution, is sufficient to supply at least 200 farmers, the aggregate of whose irrigated acreage is at least 1,000 against 100 in 1860.

In 1860, the city of Los Angeles had only a few irrigating ditches. Many of its citizens decried the idea of its having any future prosperity, because of the small water supply. The present of Los Angeles is very different. By adopting a judicious system, water can be spread over its whole surface, and carried far beyond the city limits. Every house desiring it, is supplied. Its water system is being rapidly enlarged and extended, and the city, in its development keeps pace with the water supply.

I have noticed innumerable localities, where early cultivation of the soil, and the judicious use of water, have been followed with the greatest success.

I mention as an example Arroyo Seco; thence east along the base of the mountains. This semi-tropical belt, a few years since was comparatively worthless. Now it has large and well cultivated vineyards. Also, orchards containing the orange, lemon, lime and many other most profitable fruits. Without water these happy results could not have been reached.

As irrigation is in its beginning aud imperfectly understood, I venture a few suggestions in the way of developing our water supply, which is ample for an infinitely wider area than now uses it. Also about distributing and applying it.

Water Supply and Saving It.

1. We have many locations suitable for the construction of reservoirs, to save the winter's run. Such reservoirs can be built with, not a heavy cost.

2, The mountain streams can be secured and utilized, by digging to bed rock across, and damming the width, using cement. Several years I have had experience in mining in rivers, where the under flow was greater than the surface flow; as is the case with the San Gabriel river and at Saw Pit cañon, and, I am convinced, that Santa Anita, Ben. Eaton's cañon, Arrroy Seco, Verdugo's—all the streams in short, that emerge from the cañons at the base of our mountains, will, by damming and draining, as above mentioned, triple our water supply and furnish the same during the requisite parts of the year.

Nature has formed these cañons so favorably that a series of dams, each higher than its successor, can be constructed in every one of them, and under the most favorable conditions to save a heavy amount of water.

How lo Dislribute Waler.

Streams, and all water not rising on private property, should go to all requiring its use. And, to avoid the possibility of injustice or dissensions in its distribution, it is an urgent duty for the Legislature of California to enact a most copious system of water laws.

European States, generally deemed effete in our fast country, are a long ways ahead of us in this particular. Their State regulations carry prosperity and peace with the water. Our lack of suitable statutory provisions, too often bring discord, expensive litigation and want of prosperity to the people and no income to the State.

The law should provide, for the survey of the lay of the land, also its quality. Then we may safely extend ditches and distribute extensively. Any system of water laws shonld be comprehensive and complete. There should be no loop hole for litigation to creep in. It should also be plain and easy to be understood.

Dislribulion.

I find it a good rule to distribute by numbers; each proprietor of the number taking in its order. Parties not requiring water at the allotted time, can pass their number or sell it.

How lo Apply Waler lo Polatoes.

Irrigatiou by flooding, is best for most soils. Follow with deep plowing—then plant.

As farming may often fail for want of water, so, too much water, may injure crops seriously. Potatoes may be raised on irrigated land, and kept as free from rot as if raised on moist land.

1. Prepare the grounnd well before planting.
2. Keep up an evan temperature and moisture until the hot season is ended.
3. This is accomplished by running water between the rows, so that the moistnre will make an even temperatnre. Under this method potatoes will keep good, and as sound as if raised on other land.
4. Light loam is the best, when potatoes are to be irrigated.—*Los Angeles Star.*

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For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

ADORN YOUR HOMES with the new Chromo "Awake" and "Asleep." Sells like Wild fire. The pair sent for 50 cents. A large discount to agents. Address W. F. CARPENTER, Foxboro, Mass. jn28-eow2t

THE "HARVEST KING,"
THE NEW
Patent Stripper and Thresher.

So many inqulries having heen made, we take this method of giving farmers lnformation concerning the PATENT STRIPPER AND THRESHER. Our Machines are of two kinds. The larger machine, with two men and six horses, does all the work of stripping, threshing, cleaning and sacking the grain ready for market, The improved machine was worked successfully last harvest, and some of the testimonials given hy Martin Mendenhall, Livermore, Alameda Co.; W. W. Wynn, Livermore, Alameda Co.; George May; T. M. Kiernan; L. Blanco; Alexander Esdun, Livermore, Alameda Co.; J. J. True, Livermore, Alameda Co.; C. Applegarth, Livermore, Alameda Co.—in its favor, may be seen hy reference to the RURAL PRESS, September 7th, 1872.

We have gone to great expense in bringing the machine to greater perfection this season. One with all the improvements will he at work in different districts to give farmers an opportunity of seeing

Tne Most Economical Method of Harvesting

Ever Invented The first patent machine (weighs about 2,500 lhs.) is smaller, simpler and better adapted to small farmers, as it only requires one man and four horses to strip and thresh about ten acres of grain per day.

Notice will be given of the times and places of trial.

The simple machines give satisfaction, as will be seen hy the following testimonial concerning the work of one sold in Livermore Valley this season:

LIVERMORE, Alameda Co., Cal., June 16, 1873.

MESSRS. TAYOR & ADAMS.—Gentlemen: We have just seen your Harvester at work, on the ranch of J. M. Warth, stripping barley. The barley ie very short and difficult to cnt, yet the harvester does the work well, with less waste than a header, though it strips and threshes at the same time. From what we have seen of the machine we do not heeltate to recommend it to the farmers. Only four horses and one man are required to rnn the Harvester. Signed:

F. R FASSETT.
J. M. WARTH.
FRED. FOLGER.
A. S. BONYS.
G. W. HUFF.
H. SILK.

We have several of the simple machines to dispose of on early application at reasonable rates and on easy terms. For further information concerning machines of either kind, address, or apply to,

M. STUART TAYLOR,
jn28-1t High street, Alameda, Cal.

THE STEARNS RANCHOS.
ALFRED ROBERTSON, Trustee.
542 Market Street.....SAN FRANCISCO.

90,000 Acres of Land for Sale,

In lots to suit, suitable for the culture of Oranges, Lemons, Limes, Figs, Almonds, Walnuts, Apples, Peaches, Pears, Alfalfa, Corn, Rye, Barley, Flax, Ramie, Cotton, etc. And, also, many thousand acres of

NATURAL EVERGREEN PASTURES,
Suitable for Dairying.

Good water is abundant, at an average depth of six feet from the surface. On almost every acre of this land, FLOWING ARTESIAN WELLS can be obtained, and the more elevated portions can he irrigated hy the water of the Santa Ana River.

Most of these lands are naturally moist, requiring only good cultivation to produce crops.

TERMS—One-fourth cash, halance in one, two and three years, with ten per cent. interest.

I will take pleasure in showing these lands to parties seeking land, who are invited to come and see this extensive tract before purchasing elsewhere.

WM. R. OLDEN, Agent.
Anaheim, Los Angeles county, May 24, 1873.
26v5tf

BRONZE TURKEYS.

One Gobbler and two Hens, very large. Price $60.

White Holland Turkeys.

One Gobbler and three Hens, now laying. Price $60.

Three pair of White Guinea Fowls. Price $20 per pair.

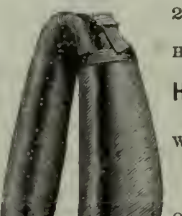
Ten pair of Fancy Pigeons, different varieties.

Three pair Lop-Eared Madagascar Rabbits.

The above lot has just arrived from the East and is for sale. Inquire of

A. MARQUARD,
No. 610 Sacramento street, San Francisco.

MAIN & WINCHESTER,



214 and 216 Battery St.,
SAN FRANCISCO,
Have the Largest and Best Assortment of
HARNESS, SADDLES, Bridles,
WHIPS,
SADDLERY,
HARDWARE, and
Collars
Of every description, of their own and other manufactnre,
Ever Offered on the Pacific Coast.
26v5-3m

WE NOW OFFER TO THE FARMERS
The Best Horse Fork in Use.

The Fork is made in the most substantial manner, of steel, with hickory heads. They are so constructed that the Fork does not drop its load until the Fork man is ready to unload his Fork. Many malmed men can appreciate the value of this improvement who have been injured by the old style Forks.

For sale hy

BROWN & DOANE,
209 El Dorado street, Stockton, Cal.
26v5-2m

Wheat Market Quotations Compared.

1873.	S. F. SHIPPING.	Liverpool. TELEGRAPH REPORTS*	Liverpool. MAIL REPORTS†	Diff. Bet. Mail & Tel	Diff. Bet. S. F. & Tel.
APR. 12....	1 80	2 76@2 82	.....	.....	99
" 14...	1 80	2 76@2 82	.....	.....	99
" 15....	1 80	2 76@2 82	2 79@2 67	10¼	99
" 16....	1 80	2 76@2 82	.....	.....	99
" 17....	1 81¼	2 76@2 82	.....	.....	97¾
" 18....	1 82½	2 76@3 82	2 97@2 97	9	96½
" 19....	1 82½	2 74@2 82	.....	.....	95½
" 21....	1 82½	2 74@2 82	.....	.....	95½
" 22....	1 82½	2 76@2 82	2 83@2 95½	9	96½
" 23....	1 82½	2 76@2 82	.....	.....	96½
" 24....	1 82½	2 81@2 83	.....	.....	99½
" 25....	1 82½	2 83@2 87	2 81@2 93½	5½	1.02½
" 26....	1 82½	2 83@2 87	.....	.....	1.02½
" 28....	1 82½	2 83@2 87	.....	.....	1.02½
" 29....	1 82½	2 85@2 89	2 85@2 98	12½	1.01½
" 30....	1 82½	2 85@2 89	.....	.....	1.01½
MAY 1....	1 82½	2 85@2 89	.....	.....	1.01½
" 2....	1 82½	2 85@2 89	2 89@3 02	10½	1.01½
" 3....	1 82½	2 83@2 87	.....	.....	1.06½
" 5....	1 82½	2 83@2 87	.....	.....	1.06½
" 6....	1 91½	2 83@2 87	2 87@3 00	11	97½
" 7....	1 91½	2 83@2 87	.....	.....	97½
" 8....	1 90	2 83@2 87	.....	.....	95
" 9....	1 00	2 85@2 89	2 85@2 93	8	93
" 10....	1 90	2 91@— —	.....	.....	1.01
" 12....	1 90	2 91@— —	.....	.....	1.01
" 13....	1 90	— —@— —	2 91@3 03	12	.....
" 14....	1 90	2 94@2 97	.....	.....	1.05
" 15....	1 90	2 93@2 97	.....	.....	1.05
" 16....	1 92½	2 83@2 97	2 95@3 03	12	1.01½
" 17....	1 92½	2 95@2 97	.....	.....	1.03½
" 19....	1 90	2 95@2 97	.....	.....	1.06
" 20....	1 90	2 93@2 87	2 99@3 11	.....	1.05
" 21....	1 90	2 93@2 97	.....	.....	1.05
" 22....	1 90	2 93@2 87	.....	.....	1.08
" 23....	1 82½	2 91@2 95	3 01@3 13	17	1.10½
" 24....	1 82½	2 91@2 95	.....	.....	1.10½
" 19....	1 80	2 91@2 95	.....	.....	1.13
" 27....	1 80	2 91@2 95	.....	.....	1.13
" 28....	1 80	2 91@2 95	.....	.....	1.13
" 29....	1 83½	2 91@2 05	.....	.....	1.10½
" 30....	1 82½	2 95@2 97	.....	.....	1.14½
" 31 ..	1 82½	2 95@2 87	.....	.....	1.14½
JUN. 2....	1 82½	2 95@2 97	.....	.....	1.14½
" 3....	1 82½	2 95@2 97	.....	.....	1.14½
" 4....	1 82½	2 95@2 97	.....	.....	1.14½
" 5....	1 80	2 98@3 03	.....	.....	1.21
" 6....	1 80	2 97@3 03	.....	.....	1.20
" 7....	1 80	2 97@3 03	.....	.....	1.20
" 9....	1 80	2 97@3 03	.....	.....	1.20
" 10....	1 77½	2 97@3 03	.....	.....	1.22½
" 11....	1 77½	2 97@3 03	.....	.....	1.22½
" 12....	1 72½	2 81@3 13	.....	.....	1.22½
" 13....	1 67½	2 91@2 97	.....	.....	1.26½
" 14....	1 67½	2 91@2 97	.....	.....	1.26½
" 16....	1 67½	2 89@2 93	.....	.....	1.23½
" 17....	1 67½	2 89@2 93	.....	.....	1.23½
" 18....	1 67½	2 89@2 93	.....	.....	1.23½
" 19....	1 65	2 89@2 93	.....	.....	1.26
" 20....	1 65	2 89@2 93	.....	.....	1.26
" 21....	1 65	2 89@2 93	.....	.....	1.28
" 22....	1 65	2 89@2 93	.....	.....	1.26
" 23....	1 67½	2 91@2 95	.....	.....	1.25½
" 24....	1 67½	2 91@2 95	.....	.....	1.25½

*—The quotations given by telegraph to the Associated Press are mainly those of what are called by the agent of the Associated Press Average California Wheat. In a few instances Club are given.

†—These are quotations of California wheat in Liverpool, taken from the "Mark Lane Express."

‡—These differences are those between the mean price of California wheat in Liverpool as announced by telegraph to the Associated Press and as published in the "Mark Lane Express." In all cases the "Mark Lane Express" shows higher prices than the telegraph.

S. F. MARKET REPORT.

At wholesale when not otherwise indicated.

Weekly Market Review.

[By our own Reporter.]

DOMESTIC PRODUCE.

SAN FRANCISCO, June 25, 1873.

The principal matters of interest now are the state of the Wheat crops in Europe, the amount of it here, and the prices of tonnage. Upon the first and last depend the price which it fetches in this market. With regard to the first, the *Mark Lane Express* states that the crop in all of Europe and Great Britain and Hungary, looks remarkably well. In the former the harvest would be, it was anticipated, three weeks behind time. A crop was not to be expected, but fair harvest weather might give fair results. In Hungary great fears of rust were entertained and prices had gone up. In Spain, there was every hope of a good crop. From this it would appear that the crop on the whole would be somewhat less than the average, as Hungary is one of the granaries of Europe. The amount of Wheat that will be harvested this year, is now generally anticipated to be about the same as that of last year. In anticipation of a large export surplus, prices of tonnage have been again put up, but they cannot last at their present prices long. When the large fleet due here shall begin to arrive, they will go down as rapidly as they rose, especially as the farmers will keep back their Wheat until there is a plethora of tonnage here, in the event of the Ring trying to put it on again.

Receipts.

Receipts of all kinds of Bay Produce have been less than those of last week. Flour receipts have decreased one-fifth; those of Wheat two-thirds; those of Barley one-eighth; those of Potatoes have been about the same; those of Bran have doubled; those of Middlings have decreased nearly one-third; those of Beans are about the same; those of Wool have decreased one-fourth; those of Hay one-half; those of Hides have doubled,

We summarize receipts of Bay Produce to date as 12,065 quarter sacks of Flour; 53,286 centals of Wheat; 7,840 do of Barley; 40 do of Oats; 57 do of Rye; 249 do of Buckwheat; 9,436 do of Potatoes; 5,706 do of Bran; 247 do of Middlings; 649 do of Onions; 244 do of Beans; 1,068 bales of Wool; 1,218 tons of Hay; 46 do of Straw; 13,905 gallons of Wine; 90 do of Brandy; 348 centals of Corn; 2,067 Hides; 41 bales of Cotton; and 5 bales of Hops.

Receipts from Coast ports include 358 centals of Wheat; 3,397 do of Barley; 15 do of Oats; 209 of Beans; 994 bales and 1 bag of Wool; 131 Hides; 1,461 centals of Potatoes; 519 do of Bran; 1 keg of Wine; 5 centals of Peas, and 130 do of Corn.

From Oregon by the "Oriflamme" and the "Ajax" we have received 96 barrels, 1,686 half sacks, and 4,586 quarter sacks of Flour; 1,046 centals of Oats; 1,635 do of Bran; 868 Hides; 96 barrels, 300 half barrels, and 9,806 cases of Salmon, and 12 sacks, 518 bales of Wool.

Barley.

Barley has taken an upward turn this week, having advanced fully five cents. Receipts of 11,237 sacks were reported last week. We note sales of 2,500 sacks new and Coast feed at $1.12½; 300 do at $1.15; 2,000 do good Bay at $1.17½; 800 do at $1.22½; and 1,040 do Brew at $1.27½.

Butter.

The market is somewhat steadier than last week. Receipts continue very large. The amount of Eastern in the market is very little.

Cheese

Cheese is also in good supply, and has advanced slightly during the week.

Flour.

There is nothing of special interest to note in the Flour market. Exports aggregate 160 barrels, 228 half sacks; and 14,070 quarter sacks.

Hay.

Receipts are still pretty large. We note sales of 30 tons of Volunteer at $11.25; 30 do of Wheat at $13.

Hops.

There is no change in the local markets. Emmet Wells' New York Circular to date, June 14th, says:

There is little or no change to report of the market. Prices have been well maintained under the influence of discouraging crop reports from abroad. Cable advices received here this week fully confirm late mail reports of the appearance and increase of fly in the English plantations. Should these reports continue discouraging, the markets, both Foreign and Domestic, will be likely to improve. The stock of new American Hops in this city is now reduced to about 2,000 bales; of Foreign on the market there is something less than 2,000. The few bales of Foreign in Bond will not affect the market. We learn that freight has been engaged for the re-shipment of from 300 to 400 bales; the present prospect of of the English market indicates that the remainder will soon follow. About 306 bales of old Hops have changed hands this week for consumptive wants. Our advices from the Hop districts are, on the whole, favorable; the weather of late has been quite propitious, and the vine has nearly reached the tops of the poles.

Oats.

Large quantities of Oregon Oats still continue to come forward, and the market is weak. We note sales of 700 sacks of California at $1.75, and 950 do at $1.80.

Potatoes.

Receipts exceed a little those of last week. Prices remain nearly the same. There have been no sales of Potatoes of particular note to report.

Wheat.

Prices fell still more this week, but have gone up a little to-day. The fluctuations of the Liverpool market have caused this. Freight has gone up $1.00 again this week. Prices in Liverpool according to the telegrams received by the Associated Press and the Mechants' Exchange, are to-day $2.91 to $2.95, two cents higher than at the beginning of last week. Receipts have been not more than half of last week. We note sales of 1,800 sacks of Fair at $1.62½; 150 do at $1.65 and 2,500 at $1.70.

Exports include per "Archibald Fuller," to Liverpool, 22,480 centals; per "Prince Alfred," to Victoria, 60 do; per "Green Jacket," to Liverpool, 31,231 do; and per "Palawan," to Liverpool, 27,700 do, making a total of 83,411 centals, worth $152,231.

Wool.

The market is dull this week, and there is no change to record. We note sales of 300,000 lbs.

GENERAL MERCHANDISE.

Business has not been very brisk this week. Everything is quiet, pending the inauguration of the Fall trade. Imports have included cargoes per "Dragon," "Cathaya," and "Galley of Lorn" from Hongkong; per "Constitution," from Panama, and an arrival from New York, and one with Coffee from Central America. Exports aggregate $294,974.

Leather Market Report.

[Reported for the PRESS by Dolliver & Bro.]

SAN FRANCISCO, Wednesday, June 25, 1873.

Trade in all kinds of stock has been exceedingly quiet and prices are the same, as a general rule. Money continues scarce, but an improvement is hoped for on the incoming harvest.

City Tanned Leather, ₱ lb	28@29
Santa Cruz Leather, ₱ lb	26@29
Country Leather, ₱ lb	25@28
Stockton Leather, ₱ lb	26@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 19 Kil., per doz	66 00@ 85 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	55 00@ 70 00
Levin, 12 and 13 Kil., per doz	68 00@ 70 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	60 00@ 64 00
Cornellian Females, 14 to 16 Kil	66 00@ 72 00
Beaumerville, 15 Kil	60 00@ — —
Ogeran Calf, ₱ doz	54 00@ — —
Simon, 18 Kil., ₱ doz	60 00@ 62 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon. 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 30
California Kip, ₱ doz	50 00 to 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 10@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Ruasett Sheep Linings	1 75@ 5 50
Best Jodot Calf Boot Legs, ₱ pair	5 25@ — —
Good French Calf Boot Legs, ₱ pair	4 50@ 5 00
French Calf Boot Legs, ₱ pair	4 00@ — —
Harness Leather, ₱ lb	30@ 37½
Fair Bridle Leather, ₱ doz	48 00@ 72 00
Skirting Leather, ₱ lb	34@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Calf Leather, ₱ foot	21@ 25
Wax Side Leather, ₱ foot	17@ 19
Eastern Wax Leather	26

LUMBER MARKET.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$20 00	Rough, ₱ M	$18 00
Rough refuse, ₱ M	16 00	Flooring and Step, ₱ M	30 00
Rough clear, ₱ M	32 50	Flooring, narrow, ₱ M	37 00
Rough clear refuse, M	22 50	Flooring, 2d quality M	25 00
Rustic, ₱ M	35 00	Laths, ₱ M	3 00
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	1c
Surfaced, ₱ M	32 50	Rough refuse, ₱ M	—
Surfaced refuse, ₱ M	22 50	**REDWOOD—Retail.**	
Flooring, ₱ M	30 00	Rough Pickets, ₱ M	18 00
Flooring, refuse, ₱ M	20 00	Rough Pickets, p'd, M	20 00
Beaded flooring, ₱ M	32 50	Fancy Pickets, ₱ M	30 00
Beaded floor, refuse, M	22 50	Siding, ₱ M	25 00
Half-inch Siding, M	22 50	Tongued and Grooved, surfaced, ₱ M	35 00
Half-inch siding, ref. M	16 00	Do do refuse, ₱ M	27 50
Half-inch, Surfaced, M	25 00	Half-inch surfaced, M	37 50
Hslf-inch Surf. ref., M	18 00	Rustic, ₱ M	37 50
Half inch Battens, M	22 50	Battens, ₱ lineal foot	1
Pickets, rough, ₱ M	14 00	Shingles ₱ M	3 00
Pickets, rough, p'ntd	16 00		
Pickets, fancy, p'ntd	22 50		
Shingles, ₱ M	3 00		

San Francisco Retail Market Rates.

WEDNESDAY NOON, June 25, 1873

FRUITS, VEGETABLES, ETC.

Fruits of all kinds fill the market and are very cheap. Vegetables are likewise cheap and abundant. Cherries of the best black and white varieties are particularly noticeable in the stalls.

Apples, pr lb	—	@	8	Celery, ₱ doz	75 @ —
Pears, per lb	—	@	6	Cucumbers, dz	50 @ —
Apricots, lb	8	@	12½	Tomatoes, ₱ lb	6 @ 8½
Pine Apples, each	50	@	1 00	Green Peas	5 @ 6
Bananas, ₱ doz	75	@	—	String Beans	5 @ 12
Canteleups	—	@	—	Cress, ₱ doz bun	25 @ —
Blackberries	15	@	—	Dried Herbs, doz	25 @ —
Cal. Walnuts, lb	—	@	20	Garlic ₱ lb	— @ 10
Cranberries, ₱ g	—	@	1 00	Green Corn, doz	— @ 25
Strawberries, lb	12½	@	—	Lettuce, ₱ doz	25 @ —
Raspberries, lb	—	@	25	Mushrooms, ₱ lb	75 @ —
Gooseberries*	12½	@	15	Horseradish, ₱ lb	— @ 25
Currants	—	@	10	Okra, dried, ₱ lb	50 @ —
Cherries, ₱ lb	12½	@	37½	do fresh, ₱ lb	50 @ —
Oranges, ₱ doz	75	@	—	Pumpkins, ₱ lb	3 @ —
Limes, per doz	25	@	—	Parsnips, doz	20 @ 25
Figs, dried Cal. *	12½	@	25	Parsley	20 @ —
Figs, fresh	12½	@	—	Pickles, ₱ gal	50 @ 75
Figs, Smyrna, lb	25	@	—	Radishes, doz	20 @ —
Asparagus, lb.*	—	@	12½	Summer Squash	— @ 5
Artichokes, doz	25	@	35	Marrowfat, do	— @ 3
Beets, ₱ doz	20	@	—	Huhhard, do	3 @ 3
Potatoes, New ₱ lb	3	@	—	Dry Lima, shl	— @ 10
Potatoes, sweet,*	3	@	—	Spinage, ₱ bskt	25 @ 50
Broccoli, ₱ pc	10	@	15	Salsify, ₱ bunch	— @ —
Cauliflower, †	10	@	15	Turnips, ₱ doz	20 @ 25
Cabbage, ₱ doz	60	@	—	Rhubarb	5 @ 6
Carrots, ₱ doz	20	@	—		

POULTRY, GAME, FISH, MEATS, ETC

Poultry are in plentiful supply this week, and are very cheap. Game is scarce and has advanced. Fish are scarce on account of the rough weather preventing fishing operations. Flounders, Rockcod, Tomcod, Shrimps and Soles have advanced. Large Smelts have doubled in price.

Chickens, apiece	75	@	1 —	Flounder, ₱ lb	20 @ —
Turkeys, ₱ lb	30	@	—	Salmon, ₱ lb	— @ —
Mal&Canv Bk, pr	—	@	—	Smoksd, new,*	12½@ —
Tame, do	1 50	@	—	Picklsd, ₱ lb	@ 6
Teal, ₱ doz	—	@	—	Salmon bellies	— @ —
Geese, wild, pair	—	@	—	Rock Cod, ₱ lb	15 @ —
Tame, ₱ pair	3 50	@	4 —	Cod Fish, dry, lb	12½@ —
Snipe, ₱ doz	—	@	—	Perch, s water, lb	12 @ —
Pigeons, dom. do	—	@	4 20	Fresh water, lb	— @ —
Wild, do	—	@	—	Laks Big. Trout*	— @ —
Hares, each	—	@	50	Smelts, large ₱ lb	12 @ 15
Rabbits, tame†	50	@	1 00	Herring, Sm'kd	75 @ —
Wild, do, ₱ dz	2 00	@	—	Tomcod, ₱ lb	15 @ —
Beef, tend, ₱ lb	20	@	25	Terrapin, ₱ doz	3 00 @ —
Corned, ₱ lb	6	@	8	Mackerel, p'k, ea	12½@ —
Smoked, ₱ lb	12½	@	15	Fresh, do lb	— @ —
Pork, rib, etc., lb	—	@	10	Sea Bass, ₱ lb	— @ —
Chops, do, ₱ lb	15	@	—	Halibut	60 @ 75
Veal, ₱ lb	15	@	20	Sturgeon, ₱ lb	4 @ 5
Cutlet, do	15	@	20	Oysters, ₱ 100	1 00 @ —
Mutton—chops.*	—	@	10	Chesp. ₱ doz	75 @ —
Leg Mutton, ₱ lb	10	@	—	Turbot	50 @ —
Lamb, ₱ lb	12½	@	15	Crabs ₱ doz	1 00 @ —
Tongues, beef,	75	@	—	Soft Shell	37½@ —
Tonguss, pig, lb	10	@	—	Shrimps	10 @ 12½
Bacon, Cal., ₱ lb	—	@	18	Sardines	— @ 12½
Hams, Cal, ₱ lb	16	@	—	Soles	— @ 30
Hams, Grosse & Choice D'field	20	@	20	Young Trout	— @ —
Whittaker's	18	@	20	Young Salmon	— @ —

MISCELLANEOUS.

Corrected weekly by B. SBARBORO & BRO., Grocers, No. 531 Washington street, San Francisco.

Butter, Cal. pr lb	25	@	32	Syrup, S F. Gol'n	60 @ 65
Cheese, Cal., lb	15	@	20	Dried Apples	10 @ 12½
Lard. Cal., lb	12½	@	15	Dr'd Ger. Prunes	10 @ 12½
Flour, ex. fam. bl	5 75	@	6 00	Dr'd Figs, Cal	9 @ 10
Corn Meal, lb	2½	@	3	Dr'd Peaches	8 @ 10
Sugar, wh. crsh'd	11½	@	12	Oils, Kerosene	45 @ 50
do lt. brown, lb	10	@	11	Eggs	30 @ —
Coffee, Sharbro's family grind, lb			27½	do Eastern	25 @ —
Coffee, green, lb	18	@	22	Wines. Old Port	3 50 @5 00
Tea, fins blk, 50, 65, 75	@1		00	do Fr. Claret	1 00 @1 25
Tea, finst Jap, 55, 75, 90	@1		00	do Cal. dz. bot	3 00 @4 50
Candles, Adamant'e	17	@	25	Whisky, O.B, gal	3 50 @5 00
Soap, Cal., lb	—	@	10	Fr. Brandy	4 00 @10 00
Can'd Oysters, dz	2 50	@	3 75	Rice, lb	10 @ 12½
				Yeast Powders, dz	1 50@2 00

——* Per lb. †Per dozen. ¶ Per gallon.

GENERAL MERCHANDISE.

BAGS.

Eng. stand. Wh't	14	@	—
Flour Sacks ½s	15½	@	16
" ¼s	8¾	@	9½
Stand. Gunnies	—	@	18
" Wool Sacks	55	@	57½
" Barley do	15¼	@	16
Hessian 45-in. gds	10¼	@	11½
do 60	17	@	—
Burlaps, yard	10½	@	—

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans.	3 00	@	—
do Table do	4 —	@	4 25
Jams & Jellies	4 —	@	4 50
Pickles ½ gl	3 25	@	3 50

COAL—Jobbing.

Australian, ₱ ton	13 —	@	14 —
Coose & Bel. Bay.	8 50	@	10 —
Seattle	13 00	@	—
Cumberl'd, cks	26 00	@	—
do bulk	— —	@	25 —
Lehigh	20 00	@	—
Liverpool	11 00	@	12 —
West Hartley	14 00	@	16 —
Scotch	12 00	@	14 —
Scranton	15 00	@	—
Vancouver's Isl.	12 00	@	14 —
Charcoal, ₱ sk	75	@	—

COFFEE.

Sandwich Island	19½	@	—
Costa Rica per lb	20	@	—
Guatemala	20	@	—
Java	—	@	23
Manilla	19	@	—
Ground in cs	27½	@	—
Chicory	8	@	—

FISH.

Pac. Dry Cod, new	—	@	—
cases	8	@	—
Eastern Cod	—	@	—
Salmon in bhls.	8 00	@	—
do ½ bbls	4 50	@	5 00
do 2½ lb cans	—	@	—
do 2 lb cans	—	@	3 50
do 1 lb cans	20	@	25
Pick. Cod, bhls	—	@	—
do ½ bbls	—	@	—
Boston Smoked	—	@	—
Herr'g, hox	50	@	—
Mack'l, No. 1, ½ bls	—	@	9 50
" Extra	—	@	—
" in kits	2 00	@	2 50
" mess	2 87½	@	2 50
" ex. mess	—	@	4 00

NAILS.

Assorted size, lb	5¾	@	9 —

OILS.

Pacific Glue Co. Neat F't No. 1	—	@	—
Pure	1 25	@	—
Castor Oil, No 1	45	@	1 50
do do No. 2	1 35	@	1 40
Cocoa Nut	60	@	—
Olive Plagniol	5 00	@	—
do Possel	4 75	@	—
Palm	9	@	—
do Bagicalupi	—	@	—
Linseed	1 05	@	1 10
China nut in cs	75	@	80
Sperm, crude	1 25	@	—
do bleached	1 90	@	—
Coast Whales	40	@	45
Polar, refined	55	@	—
Lard	95	@	—
Coal, refined Pet	37½	@	40
Cleophine	37½	@	40
Devoe's Bril't	43	@	45
Long Island	37½	@	40
Eureka	37½	@	40
Downer Kerose'e	50	@	52½
Gas Light Oil	37½	@	40

PAINTS.

Atlan. W. Lead.	11½	@	12
Whitening	—	@	2
Chalk	—	@	1
Paris White	—	@	2½
Ochre	—	@	3
Venetian Red	—	@	3
Red Lead	—	@	11
Litharge	—	@	11

RICE.

China No. 1, ₱ lb	6½	@	6¾
do 2, do.	6	@	6¼
Japan	5½	@	6
Patna	7	@	—
Hawaiian	8	@	8½

SALT.

Cal. Bay, per ton	5 00	@	15 —
Carmen Island	14 00	@	30 —
Liverpool fine	25 00	@	26 —
do coarse	19 00	@	20 —

SOAP.

Castile ₱ lb	9½	@	11
Local brands	5½	@	7

SPICES.

Allspice, per lb	15½	@	16
Cloves	35	@	37½
Cassia	30	@	—
Nutmeg	1 15	@	—
Whols Pepper	—	@	24½
Ground Allspice	25	@	30
do Cassia	45	@	50
do Cloves	30	@	35
do Mustard	30	@	32½
do Ginger	25	@	30
do Pepper	27½	@	38
do Mace	1 30	@	1 50
do Coffee	—	@	—

SUGAR, ETC.

Cal. Cube per lb	11	@	—
Circle A crushed	11	@	—
Dry granulated	10¾	@	—
Extra do	10½	@	—
Golden C	9½	@	—
Hawaiian	20	@	22½
Cal. Syrup in bls.	52½	@	—
do in ½ bls.	55	@	—
do in kegs	60	@	—

TEA.

Colong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuy	40	@	70
do Moyune	65	@	85
Japan, ½ chests, hulk	30	@	75
Japan, lacquered, bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TOBACCO—Jobbing.

Bright Navys	52½	@	60
Dark do	50	@	55
Dwarf Twist	60	@	65
12 inch do	60	@	67½
Light Pressed	65	@	75
Hard do	60	@	70
Conn. Wrap'r	40	@	50
Penn. Wrapper	35	@	45
Ohio do	30	@	40
Virgi'a Smok'g	60	@	95
Fine cut chewing, huc'ts. ₱ lb	75	@	90
Banner fine cut	9 25	@	—
Eureka Cala	8 50	@	—

DOMESTIC PRODUCE.

WEDNESDAY M., June 25, 1873.

BEANS.

Beans. sm'l wh. lb	6½	@	7
do, butter	6	@	—
do, large, do	7	@	—
do, hayo	3½	@	3¾
uo, pink	3¼	@	3¾
do, pea	6½	@	7

BROOM CORN.

Per ton	$60	@	$150

DAIRY PRODUCE.

Butter, Cal. fresh, lb	—	@	—
do, ordin'y roll	28	@	—
do, choice	30	@	—
do, new firkin	28	@	30
do, pickled	28	@	30
do, Western	22	@	—
Cheese, Cal. new	13	@	15
do, Eastern	16	@	—
Eggs, Cal. fresh	—	@	28
do, Oregon	—	@	—
do, Eastern	—	@	—

FEED.

Bran per ton	23	@	— —
Middlings	29	@	— —
Hay	11	@	15 —
Straw	12	@	— —
Oil cake meal	39	@	— —
Corn Meal	39	@	— —

FLOUR.

Alviso Mills, bbl	4 25	@	5 75
California	4 25	@	5 75
City Mills	4 50	@	5 75
Comme'l Mills	4 50	@	5 75
Golden Gate	4 50	@	5 75
Golden Age	4 50	@	5 75
National Mills	4 50	@	5 75
Santa Clara Mills	4 50	@	5 75
Genesee Mills	4 50	@	5 75
Oregon	4 50	@	5 75
Vallejo Star	4 50	@	5 75
Venns, Oakland	4 50	@	5 75
Stockton City	4 50	@	5 75
Lombard, Sac'o	4 50	@	5 75

FRESH MEAT.

Beef, fr quality, lb	7	@	—
do, second do	6	@	—
do, third do	3½	@	5
Veal	6	@	7
Mutton	5½	@	6
Pork, undressed	7½	@	7¼
do, dressed	10	@	11

GRAIN, ETC.

Wh't Cal. c'st. c	1 60	@	1 65
do, shipping	1 65	@	1 70
do, milling	1 70	@	1 75
Barley, Dark C'st'l	12½	@	17½
do, Light	—	@	1 20
do, Brewing	1 30	@	1 40
Oats, Dark	—	@	1 75
do, Light	1 70	@	1 95
do Omaha	—	@	—
do Oregon	1 95	@	—

Corn, White	1 25	@	1 27½
do, Yellow	1 25	@	1 27½
Buckwheat	1 25	@	—
Rye	2 00	@	—

HOPS.

California, 1871, lb	—	@	— —
do 1872	50	@	— —
Eastern. 1872. lb	60	@	62½

MISCELLANEOUS.

Beeswax, per lb	32	@	35
Honey, choice	10	@	22½
Los Ang. Honey	12½	@	17½
New Onions	1	@	1¼
Flaxseed	3	@	—
Canary do	4	@	5
Mustard do, white	1½	@	2½
do, brown	2	@	3
Alfalfa	35	@	—
Ky. Blue Grass	50	@	—
Timothy	35	@	—
Italian Rye	18	@	—
Perennial do	35	@	—

NUTS.

Peanuts per lb	3	@	5
Chilo Walnuts	14	@	15
Pecan nuts	—	@	18
Hick

AGRICULTURAL ARTICLES.

For the Harvest of 1873.



The "ÆTNA" is the latest and best Mower or Self-Rake Reaper in the country.

It possesses not only ALL the advantages of every other improved machine, but has that which no other has—a Patent **double motion**, by which (simply on moving a lever at the hand of the driver, either a **fast** or **slow speed** may be given the knives or sickles in a moment, and without in the least disturbing the ordinary gait of the team.

Treadwell & Co.'s list of Harvesting Machines embraces the Standard Improved Machines of the country, fresh from the manufactory this year.

ÆTNA
Mowers and Self-Rake Reapers,
Haines' Headers, Ithaca Horse Rakes,
Hoadley's Engines, Pitts Horse Powers,
Russell Separators, Whitewater Wagons,

Kirby and McCormick Mowers and Reapers, Russell Horse Powers, Cultivators, Header Trucks, Hay Presses, Barley Forks, Hay Cutters, Victor Hay Forks, Hand Rakes, Scythes, Snaths, and every description of Improved

Agricultural Implements,
And a fresh stock of
HARDWARE.

☞Our headers are built this season, and have all the improvements for 1873, with also the **Doane Patent Adjustable Reel**. Our Russell Separators have the **Laufenberg Patent End-Shake Shoe** when desired. ☞Please send for circulars and prices.

TREADWELL & CO.,

At the Old Stand, } Corner Market and Fremont Streets, SAN FRANCISCO.

9v5-3m

MATTESON & WILLIAMSON'S

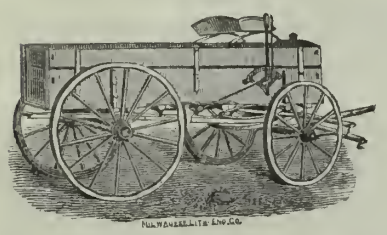
American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

THE BAIN WAGONS.



These Wagons are now recognized as

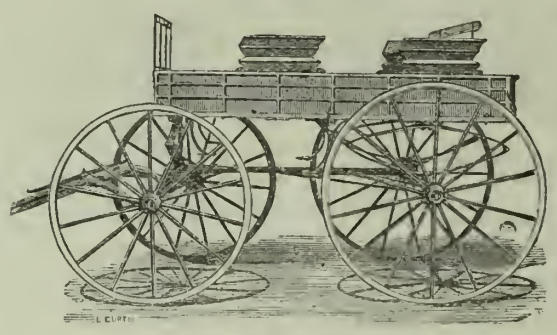
The Best Farm and Freight Wagons

IN THIS MARKET,
being made particularly for this climate.
We are now receiving a full stock of
Farm Wagons,
Freight Wagons, and
Header Wagons.
SEND FOR A LIST OF PRICES TO
BAKER & HAMILTON,
15v5-3m Sacramento and San Francisco.

JACKSON, MICHIGAN, FARM AND TEAM WAGONS

Have been proved for Fifteen Years in California as

The Best Wagons to Stand this Hot and Dry Climate.



TRADE WAGON.

The Wheels have Tire Rivets—Felloes run through Hot Boiled Oil—No Shrinkage Possible.

EXTRA BEARING IRONS and BRACES, with OTHER IMPROVEMENTS.

We have also to arrive:
EXTRA WHEELS, to make a Header Wagon of a Farm Wagon.
Also, HEADER WAGONS complete.

Also, Light and Heavy **One-Horse Carts.** Also, a Light Express one or two-seat Wagon—called the OHIO TRADE WAGON—suitable for one or two horses, for a Pleasure Wagon or other light use. We invite a close inspection of this Wagon in the state in which it comes from the Manufactory (UNPAINTED), showing it to be

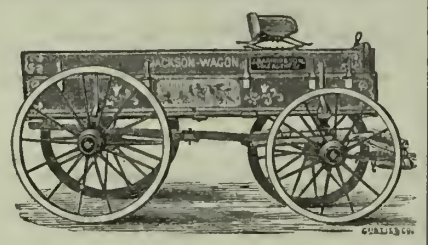
The Best Made Wagon of the Kind ever Imported.

We guarantee all our Wagons for Two Years. Anything proving imperfect in that time will be made good.

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JACKSON MICHIGAN WAGONS

For the Past Fifteen Years:



ALL UNITE IN TESTIFYING THAT THEY ARE THE BEST WAGONS TO STAND

This dry climate of any that have been used in California.

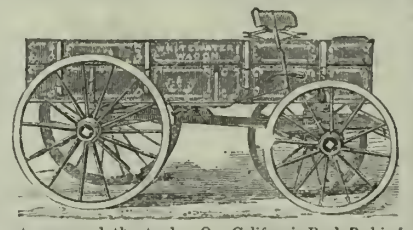
All Sizes, from One-Horse to Six-Horse Wagons, are in Stock, Wholesale or Retail, cor. California and Davis sts., San Francisco.

25v5-1am3m **J. D. ARTHUR & SON.**

THE WHITEWATER WAGON.

PRICES.—Thimble Skein, 3 inch, $100; 3¼ inch, $105; 3½ inch, $110; 3¾ inch, $115; 4 inch, $125—including, in each case, wagon gearing complete, with whiffletrees, neck yoke and stay chains. **Beds, Brakes, Seats, etc., $40 to $50**, complete, according to style. **Iron Axle, $130 to $185**, according to size.

We invite the attention of buyers to the superior workmanship and finish of these justly celebrated Wagons. They are known throughout the West, and have long taken the lead of all others; and ever since first introduced to the California farmer, have given the most complete satisfaction. The timber is of the choicest selection, **second growth**, and the iron used the best that can be obtained. The manufacturers say: "A thorough system of inspection is strictly adhered to, so that we are prepared to warrant each part to be perfect; if defective, it will be replaced without charge. We claim by **actual test** a SAVING OF FIFTEEN PER CENT. in DRAFT **over any other Wagon offered for sale.** This ease of draft has been accomplished after years of close study, and on strictly scientific principles, and is a **secret known only to ourselves.** Knowing that a Wagon, to be popular in California, must be a **good one**, and desiring to bring out for our trade not only the BEST Farm Wagon in the country, but one also that could be sold at a popular price, we finally selected "THE WHITEWATER" as the wagon before all others for the California trade. The manufacturers of these Wagons are among the oldest and largest in the United States (Winchester & Partridge, of Whitewater, Wis.), and their Wagons may be found in all parts of the country. We are prepared to furnish Wagon beds, Brakes and Seats in any style to suit customers and the trade. Our California Rack Bed is far superior to any in the market. The side pieces are made of 2x6 oak; the bed is 14 feet long, and the SPRING SEAT 4 feet from the box—giving ample room to load wood, sacks, etc., without interfering with the driver. Our California Roller Brake can be used with or without a hox. These beds, as well as the "Whitewater" running-gear, are peculiarly adapted to California use. The brakes have **hardwood bars**, and the seats **hardwood Standards**; the beds are nicely proportioned, well framed and bolted together, painted inside and outside, neatly striped and ornamented, and well varnished. The wheels of the "Whitewater" are extra heavy, with slope-shouldered or wedge-shaped spokes, in large hubs and deep felloes, wide and heavy tires RIVITED ON THROUGH EVERY joint. The wheels are all soaked in **hot** boiled oil, twice during working, and again before being painted, so as to prevent any possible shrinkage of the wood in our long and hot dry seasons. **They are warranted to stand the Climate of California**, being made especially for this market. The axles to our Thimble Skein Wagons are made large and strong, and of **thoroughly seasoned hickory**, and the skeins put on by a machine, so that each one is perfectly true and never works loose. The **iron work** of "The Whitewater" is 100 pounds heavier than on any other farm wagon made. Our Iron Axle Wagons are made expressly for freighting and heavy work, and we guarantee a better made and stronger wagon for the price than any ever before offered in this market. If you want a wagon, and want a GOOD ONE, at a **low price**, give the "Whitewater" a trial. **TREADWELL & Co., San Francisco,** General Agents for the Pacific States. 14v5tf



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FIRST PREMIUM WINDMILLS
ARE THE MOST POPULAR
Of any on the Pacific Coast.

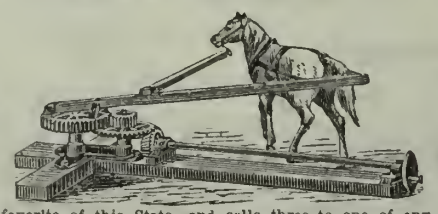
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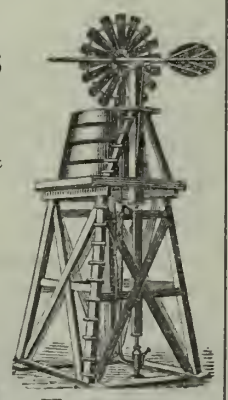
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Eureka.





Economy.

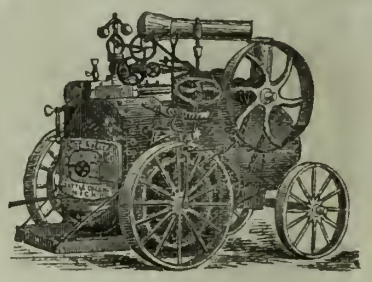
Is now the favorite of this State, and sells three to one of any other make.

☞ N. B.—A few Windmills have heretofore been made by parties in this city, and advertised under the name of the **Golden State Windmill**, which is an infringement on the **Celebrated "Eureka" Windmill**, for which the undersigned holds a UNITED STATES PATENT; and any persons making, selling or using the same without our consent will be prosecuted. We warn purchasers against deception, and will pay a liberal reward to any person giving information that will lead to the detection of parties infringing on the aforesaid Patents.

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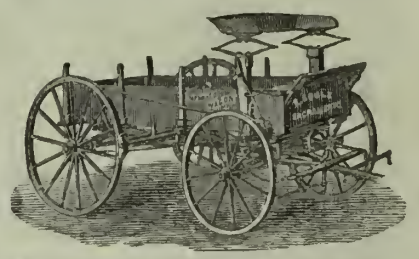
W. I. TUSTIN, Inventor and Patentee,
sc16-1am3m And Pioneer Windmill Manufacturer of the Pacific Coast.

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AGENTS FOR
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MERRITT & KELLOGG'S SELF-PROPELLING THRESHING ENGINES.
John Deer Moline Plow.
Also COLLINS' PLOW (Smith's Patent).
THE GORHAM BROADCAST SEEDER AND CULTIVATOR.
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SACRAMENTO AND SAN FRANCISCO,
Importers of
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Offer the latest improved and most reliable machines to be found in market, viz:

CHAMPION MOWERS, CHAMPION REAPERS—Hand Rake or Self Rake; WOOD'S MOWERS, BURT'S MOWERS and Hand Rake Reapers.

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Pure Blo...nch Merino Rams and ...wes,

For sale by R... County, Cal., ...COW, of Centreville, Alameda ...Southern Pac... Station, on the Western and ...

These Sheep ... French Imper...ed of pure descent, from the ...Rambouillet.

Also a few ...oung Bulls of the Durham blood.

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Breeders of ...ss Thoroughbred

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FRENCH M... SHEEP.

OUR PRICES WILL B...HAN THE SAME QUALITY can be ... any other RELIABLE H... in Cal-ifornia an... Sp...

Rams will be sent to ...co, and sold by Christy & Wise; also at ...verhiser's, near Stockton; and at Patterson ...r Grayson, San Joaquin river.

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Stockton.

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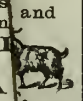
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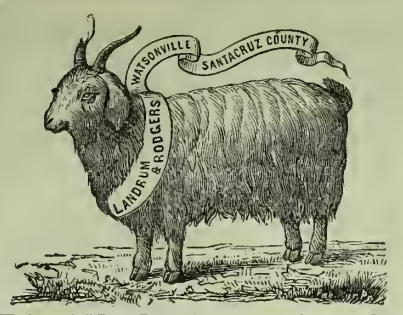


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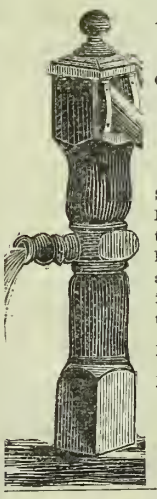
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